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BEFORE THE ARIZONA CORPORATION COMMISSION

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BRENDA BURNS
Commissioner

Arizona Corporation Commission
DOCKETED
AUG 9 2011
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IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS AGUA FRIA WATER DISTRICT, HAVASU WATER DISTRICT, AND MOHAVE WATER DISTRICT.	DOCKET NO. W-01303A-10-0448 **NOTICE OF FILING REJOINDER TESTIMONY**

Attached is the Rejoinder Testimony of Thomas M. Broderick, Paul G. Townsley, Joseph E. Gross, Ian C. Crooks, Troy Day, Miles Kiger, Sandra L. Murrey, John F. Guastella, and Dr. Bente Villadsen filed on behalf of Arizona-American Water Company. Also attached is the redacted version of Gregory Barber's Rejoinder Testimony.

RESPECTFULLY SUBMITTED this 9th day of August, 2011.

LEWIS AND ROCA LLP

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Phoenix, AZ 85004
Attorneys for Arizona-American Water Company

LEWIS AND ROCA LLP LAWYERS

ORIGINAL and thirteen (13) copies
of the foregoing filed
this 9th day of August, 2011, with:

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1200 W. Washington Street
Phoenix, Arizona 85007

Copy of the foregoing hand-delivered
this 9th day of August, 2011, to:

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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, Chairman
BOB STUMP
PAUL NEWMAN
SANDRA D. KENNEDY
BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS AGUA FRIA, HAVASU AND MOHAVE WATER DISTRICTS	DOCKET NO. W-01303A-10-0448

REJOINDER TESTIMONY
OF
THOMAS M. BRODERICK
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
AUGUST 9, 2011

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EXECUTIVE SUMMARY

Thomas M. Broderick testifies as follows:

The Company is proposing low income tariffs for the Agua Fria, Mohave, and Havasu Water Districts which comply with Decision No. 71410.

The current amount of short term debt as of July 31, 2011 is $50,881,000. As a result, using Commission Staff's definition which includes short term debt, the portion of Company's capital structure represented by debt as of July 31, 2011, is down to 59.55%.

The unamortized balance of White Tanks Plant related deferrals is $ 9,313,992 as of July 31, 2011.

The Company has addressed Mr. Hewitt's suggestion regarding notifying customers that they are in the Agua Fria District. Mr. Hewitt's claims regarding the notification in the prior Agua Fria rate case are inaccurate.

Mr. Arndt's surrebuttal testimony contains numerous errors which undermine the accuracy of Mr. Arndt's testimony. Mr. Broderick then discusses in detail the history of hook-up fees relating to the White Tanks Plant and the Company's notification of the Commission of the changes in the collection of hook-up fees.

Mr. Broderick discusses the forecasts made by Arizona's leading economists during the time before and after the Company was constructing the White Tanks Plant. Those forecasts support the prudency of the Company's decisions.

The Company continues to have concerns about Staff's rate design and requests that Staff be more forthcoming with its specific goals regarding water use efficiency and how that is captured in its rate design proposals.

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Thomas M. Broderick. My business address is 2355 North Pinnacle Peak Road, Ste 300, Phoenix, AZ 85027.

Q. ARE YOU THE SAME THOMAS M. BRODERICK WHO PROVIDED DIRECT AND REBUTTAL TESTIMONY IN THIS CASE?

A. Yes.

II PURPOSE OF TESTIMONY

A. Please see my executive summary.

III LOW INCOME PROGRAM

Q. IS THE COMPANY PROPOSING FOR COMMISSION APPROVAL IN THIS CASE A LOW INCOME PROGRAM AND TARIFF FOR THE AGUA FRIA, HAVASU, AND MOHAVE WATER DISTRICTS?

A. Yes, and I apologize for not being able to submit this request earlier as only just recently were we able to reach an agreement with the only vendor we determined is able and willing to provide a low income program in these districts. That vendor is the Arizona Community Action Association ("AZCAA"), which administers existing low income programs for several utilities including APS. If the Commission grants approval of the low income program, the Company and AZCAA will proceed with signing the agreement and shortly thereafter the low income program will commence in Agua Fria, Havasu and Mohave. AZCAA, as the umbrella administrator, will work with specific separate field program administrators that will actually issue the low income credits. AZCAA's fee is 10% of the credits issued and the field program administrators also charge 10%.

Therefore, the administrative program cost is 20% of the actual credits issued. The Company does not plan to account for any of its internal program costs as part of the program costs.

Q. IS THE PROGRAM MODELED ON THE REVISED LOW INCOME PROGRAM NOW IN EFFECT IN THE COMPANY'S SUN CITY WATER DISTRICT?

A. Yes, it is essentially identical. In Sun City, customers of record receive credits on their water bill; whereas, customers residing in multi-housing structures that are not our customer of record periodically (twice a year) receive low income credits in the form of checks.

Q. WHAT ARE THE SPECIFICS OF THE LOW INCOME PROGRAM FOR THE AGUA FRIA DISTRICT?

A. The Company proposes that up to 1,000 Agua Fria residential customers on 5/8 and ¾ inch meters participate in the program if they meet the same low income criteria as established for the Sun City program. The Company proposes a monthly credit of $7.50 for participants for a total annual credit of $90,000. Adding the 20% administrative cost brings the total annual cost to 108,000. As with Sun City, the Company proposes to increase the high block commodity rate for all residential and commercial customers in Agua Fria by $0.0846 per 1,000 gallons in order to fund the program.

Q. WHAT ARE THE SPECIFICS OF THE LOW INCOME PROGRAM FOR THE HAVASU DISTRICT?

A. The Company proposes that up to 100 Havasu residential customers on 5/8 and ¾ inch meters participate in the program if they meet the same criteria. The Company proposes a monthly credit of $10.00 for participants for a total annual credit of $12,000. Adding the 20% administrative cost brings the total annual cost to $14,400. The Company

proposes to increase the high block commodity rate for all residential and commercial customers in Agua Fria by $0.1807 per 1,000 gallons to fund the program.

Q. WHAT ARE THE SPECIFICS OF THE LOW INCOME PROGRAM FOR THE MOHAVE DISTRICT?

A. The Company proposes that up to 1,000 Havasu residential customers on 5/8 and ¾ inch meters participate in the program if they meet the same criteria. The Company proposes a monthly credit of $5.00 for participants for a total annual credit of $60,000. Adding the 20% administrative cost brings the total annual cost to $72,000. The Company proposes to increase the high block commodity rate for all residential and commercial customers in Agua Fria by $0.1138 per 1,000 gallons to fund the program.

Q. HAS THE COMPANY CAPTURED THIS INFORMATION IN A TARIFF?

A. Yes. Rejoinder Exhibit TMB-1 presents the proposed low income tariffs.

Q. IS THIS LOW INCOME PROPOSAL IN COMPLIANCE WITH DECISION NO. 71410?

A. Yes, for the districts in this case. For these three districts, it complies with the requirement to submit a low income tariff. The low income program and tariff for each district need to be approved within the context of a rate case in order to establish the high block rate funding mechanism. The program and tariff for the Sun City West and Tubac districts will be submitted in future rate cases for these specific districts. We expect to seek a program waiver for the Paradise Valley district in that district's next rate case.

IV COST OF DEBT

Q. WHAT IS THE AMOUNT OF OUTSTANDING SHORT TERM DEBT AT JULY 31, 2011?

A. Attached is Rejoinder Exhibit TMB-2 which provides the actual amount of short term debt outstanding as of July 31, 2011 of $50,881,000. Therefore, the Company paid off an additional $3.6 million of short term debt in July 2011 and remains on track to reduce short term debt down to at least $47.8 million by December 31, 2011.

Q. WHAT PORTION OF THE CAPITAL STRUCTURE IS DEBT AS OF JULY 31, 2011?

A. Using Commission Staff's definition which includes short term debt, the portion of Company's capital structure represented by debt as of July 31, 2011, is down to 59.55%. This is a full percentage point reduction from 60.55% reported for June 30, 2011. This, by definition, means the Company's equity ratio likewise increased by a full percentage point in one month from 39.45% to 40.45%.

Q. STAFF WITNESS MR. MANRIQUE INCORPORATED A HYPOTHETICAL CAPITAL STRUCTURE SUCH THAT HE "HYPOTHETICALLY" INCREASED THE EQUITY RATIO TO 40% IN HIS RECOMMENDATION. IS THIS HYPOTHETICAL ANY LONGER?

A. No, as of July 31, 2011, Mr. Manrique's increase in the prior historical equity ratio to 40% is moot because the actual ratio is now 40.45% and increasing.

Q. IN THEIR SURREBUTTAL, DID ANY OF THE PARTIES ACCEPT YOUR NOTION OF CONTINUING TO UPDATE THE CAPITAL STRUCTURE FOR ADDITIONAL, ACTUAL INFORMATION?

A. Yes, the Verrado Community Association's Mr. Simer did accept this notion in apparent recognition of our efforts to pay down short term debt. Obviously, he made this recommendation in the context of including short term debt in the capital structure for ratemaking purposes. As he suggests, I will continue filing updates of the Company's

actual outstanding short term debt balance. RUCO's Mr. Rigsby tied his position on accepting an updated capital structure to the Commission's decision on whether to approve ISRS, though he did not explain why. Staff's Mr. Manrique did not further update beyond April 2011.

It has been the Commission's recent practice to update the capital structure late in the Company's rate cases, and I hope Staff and RUCO will embrace this concept at hearing as Mr. Simer has done. Of course, while I appreciate Mr. Manrique's hypothetical adjustment, I request he revisit this hypothetical capital structure concept in light of the fact that the Company has already exceeded the hypothetical ratio on an actual basis.

Q. DID ANY OF THE PARTIES ADDRESS UPDATING THE COST OF CAPITAL FURTHER IN THE EVENT THE REMAINING BALANCE OF SHORT TERM DEBT IS TIMELY REFINANCED INTO LONG TERM DEBT?

A Yes, Mr. Simer also indicated the Company should be allowed to update this case with new debt balances if this refinancing occurs in time to be considered in this case. I likewise believe Staff would be amenable to such an update.

V WHITE TANKS DEFERRALS

Q. AS STAFF REQUESTED, PLEASE UPDATE THE ACTUAL BALANCE OF THE WHITE TANKS PLANT RELATED DEFERRALS AS OF JULY 31, 2011?

A. The unamortized balance is $ 9,313,992 as of July 31, 2011 or only $313,633 more than originally estimated in my original Exhibit TMB-3 of $9,000,359. As requested, I will continue to provide updates of the actual deferrals as they become available.

VI REJOINDER TO HEWITT

Q. AS MR. HEWITT RECOMMENED IN HIS DIRECT TESTIMONY, HAS THE COMPANY STARTED TO INFORM CUSTOMERS ON THEIR MONTHLY BILL THE NAME OF THE DISTRICT IN WHICH THEIR PREMISE IS LOCATED?

A. Yes, as of August 1, 2011, the Company began including as a bill text message on monthly bills, the statement displayed in Rejoinder Exhibit TMB-3. Bill text messages are displayed underneath the billing summary in a section labeled "Messages to you from Arizona American." The Company has also recently placed service territory maps on its web site (specifically located at www.amwater.com/azaw/Customer-Service/Rates-&-Regulatory under separate tabs for each district). The current intention is to run this bill message for the balance of 2011 and, of course, to resume it again for those districts in a future rate case around the time of the filing. I am appreciative of Mr. Hewitt's suggestion.

Q. IS IT "TOO LATE FOR THIS CASE" AS MR. HEWITT CONCLUDES (SURREBUTTAL, PAGE 1) FOR ALL AGUA FRIA CUSTOMERS TO HAVE MEANINGFUL NOTICE IN THIS RATE CASE?

A. No, it is not too late, and I hope Mr. Hewitt now agrees. On the same day that Mr. Hewitt's surrebuttal testimony was filed, a procedural conference occurred and the outcome is that Agua Fria customers now have until August 24, 2011 to intervene in this case and they will shortly receive a separately mailed notice to that effect. The Commission has also scheduled a future procedural conference to discuss, among other things, the time needed by new interveners, if there are any, to prepare their case.

Q. MR. HEWITT CONCLUDES (SURREBUTTAL, PAGE 2) THAT BECAUSE SO FEW AGUA FRIA CUSTOMERS COMPLAINED IN DOCKET NO. W-01303A-08-0227 THAT "NOTICE WAS INEFFECTIVE ...." IS THAT TRUE?

A. No. Docket No. 08-0227 was the most recent rate case for the Agua Fria Water District. The Commission-required public notice in that case was sent to customers via ***direct mail***. On December 10, 2008, the Company filed an affidavit along with proof of postage that the direct mailer had been sent in October 2008.

The notice problems in on-going Docket No. 10-0448 were confined to those notices sent via ***bill inserts***. The Company's direct mail process is totally separate and distinct from the bill insert process. Mr. Hewitt has no basis for his allegation as regards Docket No. 08-0227.

Q. MR. HEWITT (SURREBUTTAL, PAGE 2) IMPLIES THAT ARIZONA-AMERICAN SELLS "INSURANCE ON THE PIPES." IS THAT TRUE?

A. No, Arizona-American has no such program. I am not sure, but I believe Mr. Hewitt is referring to a program offered in Arizona (and in other states) by a different subsidiary of American Water. Arizona-American does not allow inserts of this program's promotional materials into the billing envelopes of Arizona-American customers nor does Arizona-American provide customer mailing lists to this affiliate.

Q. MR. HEWITT (SURREBUTTAL, PAGE 2) CONTINUES TO STATE THAT THE COMPANY'S CALL CENTER TOLD CALLERS "THEY WERE NOT IN AGUA FRIA." IS THAT TRUE?

A. To the best of my knowledge, that is also not true. This oft repeated, but never specified, allegation of a few Agua Fria customers has been researched internally. Company officials have repeatedly inquired of the alleging customers for any details surrounding

such calls to our call center including the name of the phone representative(s), the date(s) of calls or any such information that would help the Company to best conduct an internal investigation. No such supporting information was forthcoming from customers making these allegations. Our own internal inquiries have not uncovered any misinformation in this regard.

Q. DOES THE COMPANY HAVE ANY REACTION TO MR. HEWITT'S PROPOSAL TO INCENTIVIZE DEVELOPERS TO PAY HOOK-UP FEES UP FRONT?

A. As I understand it, Mr. Hewitt's concept is to incentivize developers to pay hook-up fees upfront, or pay a much larger surcharge in the future. However, many developers are no longer in business. Of the remaining few, the small developers do not have funds available to pay upfront for a large number of lots. Small developers only want to pay for one lot at a time.

Mr. Hewitt stated that there is a lot of evidence that developers have already put infrastructure in place well before construction will start. I assume he is inferring that developers are willing to invest now in the cost of infrastructure and fees for future use. That is generally not the case. Developers' intentions are to build and sell homes immediately after having the infrastructure in place. In many cases, the developers' funding had been removed just before they were able to start construction of homes. Their plan was not to put infrastructure in place and let the infrastructure sit there for months or years before they could start constructing homes. It just worked out that way.

Some of the larger developers may be interested in paying a fee now, at a very significant discount, versus paying a larger fee in the future.

Q. MR. HEWITT CLOSES HIS SURREBUTTAL BY MENTIONING IN PASSING A DATA REQUEST HE WANTS ANSWERED. WHAT IS THE STATUS OF THAT DATA REQUEST?

A. It will be answered no later than August 11, 2011, when Mr. Hewitt is scheduled to visit Arizona-American's offices. He expressed interest in learning more about the bill insert work flow process, so the Company has scheduled a meeting to discuss it with him further. Informal teleconference discussions with Company personnel and Mr. Hewitt have already occurred

VII REJOINDER TO ARNDT

Q. IN REVIEWING MR. ARNDT'S SURREBUTTAL TESTIMONY, DID YOU NOTICE ANY INNACURRACIES OR ERRORS?

A. It is difficult to know where to begin correcting the many errors in Mr. Arndt's Surrebuttal Testimony; but, I begin by correcting his assertion that "the Company is not entitled to recover the deferred White Tanks O&M expenses..." (Surrebuttal, Page 36, Lines 8-9) because of the pending sale to EPCOR causing Arizona-American to no longer be the sole owner of White Tanks. That is not the case, as Arizona-American will remain the sole owner of the White Tanks plant as the pending sale merely causes our parent American Water to be replaced by EPCOR. The condition Mr. Arndt references in Decision No. 71410 is widely understood to mean that Arizona-American shall not sell all or a portion of the White Tanks plant without jeopardizing the recovery of its deferred White Tanks O&M expenses. That is a logical condition because if all or part of the White Tanks plant were sold, the additional owner would be paying its share of White Tanks O&M expenses.

Q. COMMISSION DECISION NO. 72047 ACCEPTED AN UPDATE TO THE COMPANY'S CAPITAL STRUCTURE EXTENDING A FULL YEAR BEYOND THE END OF THE TEST YEAR. DID MR. ARNDT CITE THIS OUTCOME?

A. No, he did not. This outcome (Decision No. 72047, page 59) does ***not*** support his position that the Commission should ***not*** reach beyond the end of the test year for an update to the capital structure. However, Decision No. 72047, which decided the Company's most recent rate case, reached a full year beyond the end of the December 31, 2008 test year for an updated capital structure. In that case, the Commission accepted Staff's Mr. Manrique's recommendation to reach out to December 31, 2009 (Direct Testimony, Mr. Manrique, Docket 09-0343, Page 15). In that case, this post test year reach had the unfortunate consequence on the Company of incorporating nearly the maximum amount of short term debt in the Company's history into the capital structure because construction of the White Tanks plant had only just finished. Now, in this case, Mr. Arndt does not want the Commission to reach beyond the end of the test year because it has just the opposite consequence. The Company has been and continues to pay down its short term debt. Fairness would suggest that roughly equivalent and consistent treatment from the Commission would be appropriate in this case.

Q. THE WHITE TANKS HOOK-UP FEES CITED BY MR. ARNDT (SURREBUTTAL, PAGE 23) APPEARED ADEQUATE TO FUND THE WHITE TANKS PLANT TWO TIMES OVER. ARE THOSE THE CORRECT FIGURES?

A. No. Since the White Tanks hook-up fee tariff was not approved until September 27, 2007, the hook-up fee proceeds he cites for 2005, 2006 and 2007 were not accurate and not the latest estimates at that time. The Commission did not approve retroactive applicability of the tariff nor did any party request that outcome. Mr. Arndt is probably also not aware that a Stipulation was reached late in that case and filed March 19, 2007

with home developers (at least eight home developers intervened in that case) such that a significant number of homes then in the development or construction pipeline were excused from paying the increase in the hook-up fee (as only a portion of the current hook-up fee is devoted to White Tanks) which further reduced expectations of White Tanks hook-up fee proceeds. The final Company forecast submitted in that case was provided in the revised application, but even that forecast was acknowledged as out of date in the Company's exceptions to the Recommended Order in Docket No. 05-0718.

Q. DID MR. ARNDT POINT OUT THAT, IN 2008, CUSTOMER GROWTH IN THE AGUA FRIA DISTRICT INCREASED AS COMPARED TO 2007?

A. No, he did not point that out in the customer growth data table he included on page 24 of his Surrebuttal Testimony; namely, that customer growth in Agua Fria was 2,766 in 2008 as compared to 2,127 in 2007. Alternatively, Mr. Arndt stated that the Company did not inform the Commission in a timely manner that the funding of the White Tanks plant by hook-up fees had problems based on 2007 customer growth results. Since Mr. Arndt did not provide any calculations of what customer growth of this magnitude means in terms of White Tank hook-up fees, below I provide calculations and the range of fees are substantial. The White Tanks hook-up fee approved in late 2007 was $3,195 for a ¾ inch meter and $5,325 for a 1 inch meter. Hence, the potential range of White Tanks hook-up fees for this range of growth is:

	¾ inch meter	1 inch meter
2,127 customers	$6,795,765	$11,326,275
2,766 customers	$8,837,370	$14,728,950

Hence, this lower range of customer growth in Agua Fria would have been adequate to funding the White Tanks plant in the manner originally proposed (by hook-up fee) if it had continued beyond the 2007 and 2008 timeframe, albeit at a somewhat slower pace than originally anticipated. (However, as we all now know, in 2009 a US macroeconomic recession commenced which caused a real estate depression in Arizona.)

Q. SO WHY DIDN'T THE COMPANY ACTUALLY COLLECT THIS RANGE OF WHITE TANKS HOOK-UP FEES IN THE 2007-2008 TIMEFRAME?

A. What Mr. Arndt does not point out in his surrebuttal testimony is that the increase in hook-up fee for White Tanks was approved too late in 2007; thus, the Company was not able generate between $6.8 million and $11.3 million in new hook-up fees. And, furthermore, even though growth accelerated in 2008 as compared to 2007, the Company could not actually collect between $8.8 million and $14.7 million in White Tanks hook-up fees that year either for two reasons. First, developers pay hook-up fees well in advance of the customer connection and thus much of the hook-up fees on this growth were paid before the hook-up fee was increased. Second, although the Commission, the Company, and all parties to Docket 05-0718 knew of the aforementioned Stipulation, Mr. Arndt appears not to be aware that many homes initially subject to the higher hook-up fee were grandfathered at the old tariff because they were already in the construction pipeline (absent the Stipulation, developers opposed the hook-up fee increase). Therefore, it was not until 2009 that the Company had a real opportunity to actually collect White Tanks hook-up fees, but by then the real estate slowdown brought the White Tanks hook-up fee proceeds to a level inadequate to entirely fund White Tanks on that basis for any extended period of time.

Q. MR. ARNDT ALLEGES THE COMPANY DID NOT TIMELY INFORM THE COMMISSION THAT WHITE TANKS HOOK-UP FEES WERE BELOW EXPECTED LEVELS (SURREBUTAL, PAGE 25, LINES 18-23). IS THAT ACCURATE?

A. No, the Company repeatedly made the Commission aware of the evolving situation. For the earliest example, Rejoinder Exhibit TMB-4 is an excerpt (Page 1) from the Company's Exceptions to the Recommended Order in the White Tanks hook-up fee case (Docket No. 05-0178) dated September 13, 2007. The Exceptions indicate that the earlier revised hook-up fee projections were outdated and that, due to an emerging real estate slow-down, hook-up fees would not generate funds as quickly as originally projected and that the Company wanted the accounting-related authorizations to extend through 2015 (which the Commission granted). Hence, it was not the real estate slow-down that caused the Company to realize that hook-up fees could not fund White Tanks, but rather, it was the subsequent and unprecedented collapse of real estate in Arizona and the subsequent depression commencing in Arizona in 2009.

Q. WHAT IS ANOTHER EXAMPLE OF THE COMPANY INFORMING THE COMMISSION OF THE EVOLVING SITUATION?

A. Below is an excerpt from my Revised Direct Testimony in the previous Agua Fria district rate case dated June 20, 2008 in Docket 08-0227 (Page 11, Line 23 through Page 16, Line 6). I cannot see how the Company could have been more forthcoming with updated information concerning White Tanks. It is obvious from this excerpt that in June 2008, the Company was still very much committed to the original intent to pay for White Tanks with hook-up fees, that the real estate slow-down was causing a partial correction to that plan, but that the Company yet had no idea how bad Arizona's real estate market was about to become in 2009:

Q. IS ARIZONA-AMERICAN PROPOSING TO CHANGE THE AGUA FRIA WATER DISTRICT HOOK-UP FEE ("WHU-1")?

A. No. To the contrary, Mr. Townsley requests that the recently-approved increase be extended from 2015 until December 31, 2020 in order to allow more time to fund the White Tanks Plant. The WHU-1 fee was increased substantially in 2007 for the purpose of providing additional contributions to offset the White Tanks Plant's costs. As Mr. Townsley testifies, the anticipated additional proceeds from the WHU-1 tariff are falling far short of expectations, due largely to the emerging real estate slowdown. In 2007, only $73,485 in incremental hook-up fees were available to the White Tanks Plant versus $1,064,988 forecasted for 2007 during the White Tanks Plant hearing. However, if we were to request an increase in the WHU-1 fee in response to the real estate slowdown, we expect this would be received negatively by the residential home-builder community.

Q. WHY SHOULD EXISTING AGUA FRIA WATER CUSTOMERS PAY ALMOST HALF THE COST OF THE WHITE TANKS PLANT?

A. First, as I discussed above, the plant will enter service shortly after rates are effective as a result of this filing and will immediately begin providing renewable surface water to customers, nearly all of whom will never pay a hook-up fee. Thus, it is certainly fair that these customers shoulder a reasonable share of the plant's cost. Second, if CWIP were not included in rate base, the accumulated balance of the hook-up fee is forecasted to be exhausted by the end of 2010, given the revised customer forecast. Arizona-American needs to avoid this situation as our auditors may not allow us to recognize the associated deferrals and even a portion of the plant balance may be in jeopardy under possible interpretations of FASB 92. Setting this very important concern aside, the accumulated hook-up fees would not pay off the White Tanks Plant until 2027 without any CWIP in rate base, again given the revised customer forecast. Clearly, the year 2027 is not an acceptable pay off date.

Q. ISN'T THIS A CHANGE FROM ARIZONA-AMERICAN'S PREVIOUS PROPOSAL FOR NEW CUSTOMERS TO PAY FOR THE ENTIRE COST OF THE WHITE TANKS PLANT VIA THE WHU-1 HOOK-UP FEE?

A. Yes, this is an update to our original funding plan for this project. As I testified in the White Tanks case:

If the Agua Fria Water Facilities Hook-up Fee is set at the level proposed by Staff and the Commission provides the necessary accounting approvals, then Arizona-American does not presently intend to ask for a rate increase for capital costs associated with building the White Tanks Plant. This intention will be re-examined based on information known at the time of the next rate cases for the Agua Fria Water District.[1]

Q. WHAT WILL ARIZONA-AMERICAN DO IF THE COMMISSION DOES NOT AUTHORIZE INCLUDING CWIP IN RATE BASE?

A. If hook-up fees remain low through 2009 and the Commission does not authorize including CWIP in rate base, Arizona-American will face an even more difficult financial situation by 2010. The primary issue is cash-flow. By 2010, Arizona-American will have funded (provided cash for) the White Tanks Plant and it will then go in service with additional cash requirements for O&M expenses. Although the Commission has authorized the deferral of White Tanks Plant depreciation, post in-service AFUDC and will also consider a deferral of White Tanks Plant O&M expenses in this case, Arizona-American will still be providing cash until White Tanks Plant is either paid for by hook-up fees or placed in rates. Given this difficult scenario, Arizona-American may be forced in the next rate case to request approval to include the entire White Tanks Plant investment in rate base. Arizona-American's request for CWIP in rate base is designed, in large part, to reduce the likelihood that such a rate-base request will be necessary. Including a portion of the White Tank Plant's CWIP in rate base will help stay the course for having the balance funded via hook-up fees.

If the Commission approves Arizona-American's request for CWIP in rate base in this case, Arizona-American will endeavor to do its best to have the balance of the White Tanks Plant funded via hook-up fees. Put differently, the Commission can help preserve the intention of funding much of the White Tanks Plant by hook-up fees if it allows $25 million of CWIP in rate base in this case.

Q. WHY DOES CASH-FLOW MATTER?

A. Cash pays the bills, and Arizona-American is already unable to generate enough cash to pay all bills, which forces additional borrowing. For the adjusted test year 2007, Arizona-American's operating income for these seven districts was $4,623,998 (Exhibit TMB-1, Summary of Schedule A-1's), yet interest expense alone was

[1] Docket No W-01303A-05-0718, Exhibit A-7 – Surrebuttal Testimony of Thomas M. Broderick at 6.

$5,769,740 (Exhibit TMB-1, Summary of Schedule C-1's). This situation is not sustainable, especially as debt and interest expense will increase further during the construction of the White Tanks Plant. For several years now, American Water has been infusing equity into Arizona-American in order to pay interest expense and maintain a balanced capital structure.

Q. HOW MUCH WOULD AFUDC BE REDUCED IF THE COMMISSION APPROVED CWIP IN RATE BASE?

A. I do have an exhibit, but first one must bear in mind that AFUDC is greater than previously forecasted simply because hook-up fees (which begin reducing AFUDC in the month received) are so much lower during the construction period than earlier forecasted. But, setting that aside, Exhibit TMB-4 re-forecasts the White Tanks Plant cost including AFUDC and offsets the cost with revised forecasted hook-up fees using current forecast information. It also offsets the White Tanks Plant cost with $25 million of CWIP in rate base starting September 2009. It also incorporates the impacts of several proposed accounting entries resulting from the recent Commission-authorized deferral. By performing the calculation both with and without CWIP in rate base, accumulated AFUDC is reduced by $6.0 million when CWIP is included in rate base for the period September 2009 through September 2011 (the forecasted date of new rates in the next rate case for the Agua Fria Water District). Exhibit TMB-4 assumed the $25 million CWIP in rate base remains in rate base through the next rate case.

Mr. Gross sponsors the revised customer forecast and associated adjustments to arrive at the effective customer growth in Agua Fria district that pays the WHU-1 fee.

Q. HAS RUCO PREVIOUSLY EXPRESSED SUPPORT FOR REDUCING WHITE TANKS PLANT AFUDC?

A. Yes. During the proceeding to increase the WHU-1 fee, RUCO supported a much larger hook-up fee increase and stated "RUCO still believes that the Company's Option 2 will result in less AFUDC accruals than will Option 1, and is therefore still preferable."[2]

Q. WHAT IS THE FORECASTED UNRECOVERED WHITE TANKS PLANT BALANCE AT SEPTEMBER 2009 ASSUMING $25 MILLION OF CWIP GOES INTO RATE BASE?

[2] Docket No. W-01303A-05-0718, Exhibit R-2 – Rebuttal Testimony of William Rigsby at 2. (Option 2 was a significantly larger hook-up fee.)

A. Exhibit TMB-4 displays a remaining net investment of $29.3 million at September 30, 2009. This balance is forecasted to grow to a maximum of $33.1 million at December 2010. This remaining balance would be recovered by hook-up fees.

Q. EXHIBIT TMB-4 ALSO SHOWS AN UNRECOVERED WHITE TANKS PLANT BALANCE AT FEBRUARY 2017 TO BE $0. IS THAT WHEN WHITE TANKS PLANT AND DEFERRALS ARE FORECASTED TO BE FULLY RECOVERED?

A. Yes, based on current forecast information and assuming the Commission authorizes the inclusion of $25 million of CWIP in rate base in this proceeding. That date is already several years later than initially desired and planned for.

Q. ARE YOU AWARE THAT ANY PARTY TO DOCKET 08-0227, UPON REVIEWING THE COMPANY'S UPDATE IN MID-2008, SUGGESTED THE COMPANY SHOULD HALT OR EVEN CONSIDER HALTING, MOTHBALLING OR OTHERWISE CEASING CONSTRUCTION OF THE WHITE TANKS PLANT?

A. No, I am not. No party to that case nor any person anywhere until this rate case (i.e., Mr. Arndt) suggested that White Tanks should not have finished construction.

Q. IS THIS THE ENTIRE SET OF CORRECTIONS TO MR. ARNDT'S SURREBUTTAL?

A. No, but these are my major corrections.

Q. BY WHEN DID CERTAIN OF ARIZONA'S LEADING ECONOMISTS KNOW ABOUT THE TIMING AND MAGNITUDE OF ARIZONA'S ON-GOING REAL ESTATE DEPRESSION?

A. By approximately May 2008, the Arizona Blue Chip Panel's consensus forecast first displayed evidence that Arizona's slow down would be more severe than merely a typical temporary slow down. Rejoinder Exhibit TMB-5 contains excerpts from ASU's Western

Blue Chip Economic Forecast made for the period starting January 2006 through January 2011, along with actual annual Arizona economic data for the period 2000 through 2010, plus a listing of the current Arizona Blue Chip Panelists.

Q. WHAT WAS THE ARIZONG BLUE CHIP PANEL'S OUTLOOK IN JANUARY 2006?

A. Coming off the best or one of the best years in Arizona history, the outlook for 2006 and 2007 was also quite good with Arizona employment expected to grow 4.0% and 3.6%, respectively, in 2006 and 2007. Single housing permits were anticipated to decline off their record pace of over 80,000 units in 2005 by only (5.9%) and (3.8%).

Q. WHAT WAS THE PANEL'S OUTLOOK ONE YEAR LATER?

A. The Panel's outlook in January 2007 saw continued strong employment growth – the engine of the Arizona economy – of 3.6% and 3.6%, respectively, for 2007 and 2008. In other words, the Panel's employment growth outlook for 2007 did not change over that period, staying firm at the 3.6% growth outlook.

Q. WAS THE PANEL'S VIEW DIFFERENT IN JANUARY 2008?

A. In its January/February 2008 outlook, the Panel did see growth reducing somewhat from its previous strong levels to only 2.2% and 2.6% employment growth, respectively, for 2008 and 2009. The Panel's reduction was likely in response to the slow down commencing in Arizona's employment growth in 2007. We now know that employment grew 5.1% in 2006 and only 1.5% in 2007. (To truly know what the Panel was reviewing in this time frame one must obtain the preliminary actual employment data which is subsequently revised.)

Q. SINCE WE NOW KNOW THAT EMPLOYMENT IN ARIZONA DECLINED (2.1%) IN 2008, THEN FURTHER DECLINED (7.3%) IN 2009 AND DECLINED (2.1%) AGAIN IN 2010, WHEN DID THE PANEL FIRST BEGIN TO TRACK MORE CLOSELY TO WHAT ACTUALLY HAPPENED?

A. In March 2008, the Panel was still forecasting 2.2% employment growth for 2008, but in April 2008 dropped the outlook to 1.1% and then in May 2008 dropped it further to 0.7%. At that time, the Panel viewed the slow down to be shallow and short lived and forecasted employment growth of 1.9% for 2009. In December 2008, the Panel projected zero Arizona employment growth for 2009 and in January 2009, the Panel projected a (0.7%) decline. However, even as late as January 2009 the Panel believed the recession would be short and shallow and forecasted a 1.9% employment growth rate for 2010. A year later, in January 2010, the Panel forecasted only a 0.2% employment increase for 2010.

Q. GIVEN THAT ARIZONA'S LEADING ECONOMISTS ONLY FIRST BEGAN TO SHOW LIMITED UNDERSTANDING OF THE TIMING AND DEPTH OF ARIZONA'S REAL ESTATE DEPRESSION BY MAY 2008, SHOULD THE COMMISSION HAVE EXPECTED THE COMPANY TO HAVE BEEN ABLE TO - AS SOME PARTIES IN THIS CASE SUGGEST – FULLY GRASP THE EMERGING ECONOMIC SITUATION, FACTOR THAT INFORMATION IMMEDIATELY AND ACCURATELY INTO ITS CONSTRUCTION PLANS, AND TAKE IMMEDIATE ACTION ON THOSE PLANS EARLIER THAN 2009 SUCH THAT WHITE TANKS WOULD HAVE BEEN HALTED, MOTHBALLED OR ABANDONED?

A. Absolutely not. As the above contemporaneous information demonstrates, the Company simply did not have adequate evidence from any reliable and credible source of expertise to take such dramatic action in 2008.

VIII RATE DESIGN

Q. DID STAFF RESPOND TO YOUR CONCERNS EXPRESSED IN REBUTTAL CONCERNING STAFF'S PROPOSED RATE DESIGN AND POLICY?

A. Partially, yes. It was important for Staff to link the Company's proposed declining usage adjustment to the discussion of its policy for water use efficiency as Mr. Michlik did in his Surrebuttal (Page 2). If the Commission expects the Company to fully cooperate with its policy to promote efficient water use, it is important for the Commission to embrace adjustments and mechanisms which help mitigate the negative financial impact of its policy. A declining usage adjustment is one such helpful adjustment.

Q. IS THE COMPANY IMPROVING ITS TECHNICAL KNOWLEDGE OF THE IMPACT OF PRICE INCREASES AND RATE DESIGN CHANGES ON CUSTOMER USAGE?

A. Yes, because we are very concerned about an eroding base of revenues due to declining usage in a nearly zero growth economy. The Company's employee Mr. Miles Kiger earlier analyzed Anthem and provided that compliance study to the Commission, but more recently the Company has engaged economists at the U of A to build a fully specified econometric model of the Company's service territories. The U of A team selected the Paradise Valley district as its first geographic area to analyze and its initial preliminary estimate of an intermediate duration price elasticity is approximately (0.1). This price elasticity can be interpreted as, for example, a 10% increase in the price of water causes a 1.0 percent reduction in water usage. The U of A team also analyzed price

elasticity by rate tier and as expected preliminarily found that usage is more negatively responsive to price increases in higher blocks. The Company looks forward to the U of A making more information available in the near future.

Q. WHAT ARE THE COMPANY'S REMAINNG CONCERNS WITH STAFF'S PROPOSED RATE DESIGN AND POLICY?

A. It concerns the Company that Staff seems to be almost completely unconcerned with cost of service in making its rate design proposals. The Company has learned its lesson in this case and plans to include a cost of service study in the next rate case so we can be informed as to how far rate design is deviating from cost of service. The Company is also concerned that Staff is moving forward quickly and strongly in implementing a water use policy, but the Company is unaware of its specific goals. The Commission and the Company have been embracing Best Management Practices for several years now and they are working well to reduce usage. Perhaps, its time to slow down and take stock of the situation. It is not inconceivable that in the next round of rate cases for the Company, a significant amount of the proposed rate increase could simply be for recovering in rates a previously approved level of revenue requirement.

Q. DOES YOUR SILENCE ON ANY ISSUE RAISED BY ANY PARTY IN SURREBUTTAL TESTIMONY INDICATE YOUR ACCEPTANCE OF THEIR POSITION?

A. No.

Q. DOES THIS CONCLUDE YOUR REJOINDER TESTIMONY IN THIS CASE?

A. Yes.

REJOINDER EXHIBIT TMB-1

GENERAL WATER RATE
(continued)

LOW INCOME PROGRAM TARIFF

Requires the completion of a Low Income Program Application. Restricted to up to the number of eligible residential participants identifed per district below.

Agua Fria District:

Maximum participants: 1,000 residential customers on 5/8 x 3/4 inch meters
Monthly Low Income Credit: $7.50

Increase in last block commodity rate for all residential and commercial customres:

$0.0846 per thousand gallons

Havasu:

Maximum participants: 100 residential customers on 5/8 x 3/4 inch meters
Monthly Low Income Credit: $10.00

Increase in last block commodity rate for all residential and commercial customres:

$0.0 per thousand gallons

Mohave:

Maximum participants: 1,000 residential customers on 5/8 x 3/4 inch meters
Monthly Low Income Credit: $5.00

Increase in last block commodity rate for all residential and commercial customres:

$0.0846 per thousand gallons

Terms and Conditions

Applicants must swear that he/she has annual income below a threshold of 150% of the federal low income guidelines as periodically revised. Applicant may not be claimed as a dependent on another person's tax return. Applicant must reapply each time moving residences. Refusal or failure to provide acceptable documentation of eligibility, upon request, shall result in removal from the low income program. Repayment of low income credits by customers may occur for periods of ineligibility previously receiving low income credits. Annual income means the value of all money and non-cash benefits available for living expenses, from all sources, both taxable and non-taxable, before deductions, for all people who live with the applicant.

ARIZONA AMERICAN WATER CAPITAL STRUCTURE[1]

ACTUAL AS OF JUNE 30, 2011

	Amount Outstanding	% of Capital Structure
Long Term Debt	$186,993,000[2]	46.88%
Short Term Debt	$54,508,000	13.67%
Total Debt	241,501,000	**60.55%**
Total Common Equity	$157,372,000	39.45%
Total Capitalization	$398,873,000	100.00%

ACTUAL AS OF JULY 31, 2011

	Amount Outstanding	% of Capital Structure
Long Term Debt	$186,987,000	46.81%
Short Term Debt	$50,881,000	12.74%
Total Debt	237,868,000	**59.55%**
Total Common Equity	161,558,000	40.45%
Total Capitalization	399,426,000	100.00%

PROJECTION AS OF DECEMBER 31, 2011

	Amount Outstanding	% of Capital Structure
Long Term Debt	$186,940,000	47.19%
Short Term Debt	$47,818,000	12.07%
Total Debt	234,758,000	**59.26%**
Total Common Equity	$161,416,000	40.74%
Total Capitalization	$396,174,000	100.00%

[1] As per Staff definition to include short term debt.
[2] As a reminder, Tolleson related debt ($8.56 m) is always removed as per prior Commission precedent which provided the benefit of this low cost debt entirely to Sun City Wastewater district.

** YOU ARE A CUSTOMER IN THE AGUA FRIA DISTRICT ** For more information about your district, the pending rate case, payment options, conservation tips, or Arizona American Water, please call our Customer Service Center at 1-800-383-0834 or visit us online at www.arizonaamwater.com.

** YOU ARE A CUSTOMER IN THE MOHAVE DISTRICT ** For more information about your district, the pending rate case, payment options, conservation tips, or Arizona American Water, please call our Customer Service Center at 1-800-383-0834 or visit us online at www.arizonaamwater.com.

** YOU ARE A CUSTOMER IN THE HAVASU DISTRICT ** For more information about your district, the pending rate case, payment options, conservation tips, or Arizona American Water, please call our Customer Service Center at 1-800-383-0834 or visit us online at www.arizonaamwater.com.

** YOU ARE A CUSTOMER IN THE PARADISE VALLEY DISTRICT ** For more information about your district, payment options, conservation tips, or Arizona American Water, please call our Customer Service Center at 1-800-383-0834 or visit us online at www.arizonaamwater.com.

** YOU ARE A CUSTOMER IN THE SUN CITY DISTRICT ** For more information about your district, payment options, conservation tips, or Arizona American Water, please call our Customer Service Center at 1-800-383-0834 or visit us online at www.arizonaamwater.com.

** YOU ARE A CUSTOMER IN THE SUN CITY WEST DISTRICT ** For more information about your district, payment options, conservation tips, or Arizona American Water, please call our Customer Service Center at 1-800-383-0834 or visit us online at www.arizonaamwater.com.

** YOU ARE A CUSTOMER IN THE ANTHEM DISTRICT ** For more information about your district, payment options, conservation tips, or Arizona American Water, please call our Customer Service Center at 1-800-383-0834 or visit us online at www.arizonaamwater.com.

** YOU ARE A CUSTOMER IN THE TUBAC DISTRICT ** For more information about your district, payment options, conservation tips, or Arizona American Water, please call our Customer Service Center at 1-800-383-0834 or visit us online at www.arizonaamwater.com.

REJOINDER EXHIBIT TMB-4

ORIGINAL

OPEN MEETING AGENDA ITEM

BEFORE THE ARIZONA CORPORATION COMMISSION

RECEIVED

2007 SEP 13 P 4:10

AZ CORP COMMISSION
DOCKET CONTROL

COMMISSIONERS

MIKE GLEASON, Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR APPROVALS ASSOCIATED WITH A PROPOSED TRANSACTION WITH MARICOPA COUNTY MUNICIPAL WATER CONSERVATION DISTRICT NUMBER ONE TO ALLOW THE CONSTRUCTION OF A SURFACE WATER TREATMENT FACILITY KNOWN AS THE WHITE TANKS PROJECT	DOCKET NO. W-01303A-05-0718

Arizona Corporation Commission
DOCKETED
SEP 13 2007
DOCKETED BY nr

EXCEPTIONS OF
ARIZONA-AMERICAN WATER COMPANY

Arizona-American Water Company ("Arizona-American" or the "Company") hereby submits the following exceptions to the September 4, 2007, Recommended Opinion and Order:

Exception 1: On page 28, there are two ordering paragraphs (beginning on line 14 and on line 21) that provide deadlines of December 31, 2013, for the provided accounting relief. The requested accounting relief was based on hook-up fee projections contained in Arizona-American's September 1, 2006, revised application. The revised application anticipated that no hearing would be required and that hook-up fee increases would go into effect in December 2006. Now, the earliest that hook-up fees can be increased is October 2007. Further, as a result of the recent real estate slow-down, hook-up fees will not generate funds as quickly as originally projected. Although Arizona-American does not object to deadlines *per se*, they should reflect the latest circumstances. Therefore, to compensate for the delay in implementing a hook-up fee increase and for the expected slower pace of hook-up fee funding, Arizona-American asks that the deadlines in these two ordering paragraphs be set as December 31, 2015.

REJOINDER EXHIBIT TMB-5

Arizona Historical Table

	Personal Income ($ millions)	Retail Sales ($ millions)	Wage & Salary Employment (thousands)	Population (thousands)	Single-family Permits (number)
2010	223,716	43,035	2,377.3	6,392	10,755
% change	2.1	-1.7	-2.1		-16.1
2009	219,027	43,177	2,429.20		12,826
% change	-2.2	-10.7	-7.3		-33.0
2008	223,961	49,031	2,619.5		17,762
% change	2.5	-9.6	-2.1		-52.8
2007	218,588	54,246	2676.8		37,666
% change	5.6	0.1	1.5		-32.3
2006	206,958	54,211	2,637.0		55,633
% change	10.0	7.3	5.1		-31.2
2005	188,152	50,533	2,508.8		80,804
% change	10.7	13.8	5.4		0.0
2004	170,026	44,402	2,381.3		80,778
% change	9.3	8.5	3.7		22.7
2003	155,607	40,910	2,296.4		65,845
% change	5.0	5.3	1.4		18.0
2002	148,175	38,865	2,265.1		55,798
% change	3.7	1.0	0.0		7.6
2001	142,864	38,484	2,265.0		51,839
% change	5.3	1.9	1.0		6.1
2000	135,687	37,766	2,242.7	5,131	48,844
% change	9.9	7.8	3.7		-8.3

Data Sources

Personal Income: U. S. Department of Commerce, revised March 2011

Retail Sales: Taxable sales not including restaurant & bar sales, Arizona Department of Revenue

Wage & Salary Employment: Arizona Department of Commerce (revised March 2011)

Population: U. S. Census Bureau, Inter-census values not yet available

Single Family Permits: U. S. Census Bureau, June 2011

CONSENSUS FORECASTS

WESTERN BLUE CHIP ECONOMIC FORECAST

Methodology

The consensus forecasting approach used in the *Western Blue Chip* was inspired by Robert J. Eggert of Sedona, Arizona. Eggert popularized consensus forecasting with the introduction of his widely cited newsletter on the national economy, Blue Chip Economic Indicators. This approach has been consistently shown to be more accurate than projections from an individual forecaster.

Consensus panelists for the *Western Blue Chip* are drawn from leading firms, universities and state agencies across the West. Panelists are contacted during the final week of each month and forecast data are compiled by telephone and fax transmission until the last day of the month. Thus, data reported in the forecast tables for a given month are current as of the first day of that month.

The consensus for each state is the mean of all forecasts shown in the table. Data are expressed as annual percentage changes relative to the annual average value for each indicator during the previous year. Since not all panelists revise their forecasts each month, changes in the consensus may result from revisions by an individual contributor.

ARIZONA

	2006 Annual Percent Change, 2006 from 2005					2007 Annual Percent Change, 2007 from 2006				
Source:	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits
Arizona Public Service	8.0	9.0	3.7	2.9	(5.0)	8.2	7.0	3.7	2.8	3.6
ASU - Bank One EOC	7.7	7.2	4.2	2.9	(8.0)	6.8	6.8	4.0	2.8	(7.0)
Arizona Department of Commerce	7.9	7.2	4.0	3.0	(7.0)	7.5	6.1	3.7	2.9	(10.0)
Department of Economic Security	7.8	7.1	3.7	2.9		7.1	6.8	4.0	3.0	
ECON-LINC	7.8	7.5	4.0	3.0	(10.0)	8.0	7.2	4.0	3.1	(5.0)
EconLit LLC	7.5	7.0	4.2	3.0	(5.0)	7.5	6.9	3.8	2.9	(5.0)
Eggert Economic Enterprises Inc.	8.6	7.3	4.2	3.1	(5.1)	8.4	7.2	4.3	3.3	(4.1)
Elliott D. Pollack & Co.	8.0	8.0	4.0	3.0	(10.0)	7.5	7.5	3.8	3.0	(5.0)
H. C. Reardon Economics	7.7	7.2	4.1	3.1	(7.0)	7.2	6.8	3.8	2.8	(2.0)
Joint Legislative Budget Committee	7.6	7.5	4.0	3.0	(5.0)	7.2	7.0	3.1	3.0	(1.5)
The Maguire Company	8.1	7.2	3.9	3.1	(5.0)	7.6	6.9	3.8	3.1	(5.0)
Metropolitan West Asset Management	7.9	7.4	4.1			7.9	7.1	4.0		
NAU - BBER	7.8	7.0	3.8	2.8	(5.0)	8.0	6.4	3.7	2.7	0.0
Salt River Project	8.5	7.0	4.2	3.2	(4.0)	7.0	6.0	2.5	2.7	(4.0)
Stellar Capital Management	7.2	7.0	3.8	2.7	(7.5)	7.1	6.9	3.6	2.6	(5.0)
UA - Eller College	9.4	6.7	4.4	3.3	(7.2)	7.4	6.3	3.0	3.1	(4.3)
VisionEcon	8.0	8.3	4.4	3.4	0.0	6.1	6.7	2.9	2.9	(2.0)
Wells Fargo & Co.	7.4	6.7	3.2	2.8	(3.3)	7.2	6.3	3.0	2.7	(4.0)
Consensus Forecast — This Month	**7.9**	**7.4**	**4.0**	**3.0**	**(5.9)**	**7.4**	**6.8**	**3.6**	**2.9**	**(3.8)**
— Last Month	**7.9**	**8.2**	**4.2**	**3.1**	**1.1**					

CALIFORNIA

	2006 Annual Percent Change, 2006 from 2005					2007 Annual Percent Change, 2007 from 2006				
Source:	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits
Anonymous	5.8	5.2	1.7	1.7	(0.8)					
California State University, Long Beach *	5.9	7.8	1.7	1.8	(26.4)	7.0	7.1	2.1	2.1	(3.2)
Chapman University	5.5	4.8	1.1	1.5	(12.5)	5.1	4.6	0.8	1.5	(6.1)
L.A. County Econ. Development Corp.	6.1	9.4	1.5	1.4	(5.2)	5.9	8.7	1.4	1.3	(1.3)
Legislative Analyst's Office	5.7	5.2	1.3	1.4	(10.0)	5.5	5.6	1.4	1.4	(1.0)
UCLA - Business Forecasting Project	5.7	5.2	1.3	1.4	(10.0)	5.5	5.6	1.4	1.4	(1.0)
University of the Pacific	6.9	4.6	1.7	1.6	(8.4)	6.0	4.9	1.3	1.5	(4.5)
Wells Fargo & Co.	5.9	4.8	1.6	1.3	(6.0)	5.8	4.7	1.0	1.3	(6.5)
Consensus Forecast — This Month	**5.9**	**5.6**	**1.5**	**1.5**	**(7.6)**	**5.6**	**5.7**	**1.2**	**1.4**	**(3.4)**
— Last Month	**5.9**	**5.2**	**1.6**	**1.6**	**(2.9)**					

*This forecast is for Southern California only

CONSENSUS FORECASTS

WESTERN BLUE CHIP ECONOMIC FORECAST

Methodology

The consensus forecasting approach used in the *Western Blue Chip* was inspired by Robert J. Eggert of Sedona, Arizona. Eggert popularized consensus forecasting with the introduction of his widely cited newsletter on the national economy, Blue Chip Economic Indicators. This approach has been consistently shown to be more accurate than projections from an individual forecaster.

Consensus panelists for the *Western Blue Chip* are drawn from leading firms, universities and state agencies across the West. Panelists are contacted during the first week of the month and forecast data are compiled by telephone, fax, e-mail and online submission until the third week of the month. These data are then published during the first week of the subsequent month. Thus, the data are current for the month of publication. The consensus for each state is the mean of all forecasts shown in the table. Data are expressed as annual percentage changes relative to the annual average value for each indicator during the previous year. Since not all panelists revise their forecasts each month, changes in the consensus may result from revisions by an individual contributor.

ARIZONA

	2007 Annual Percent Change, 2007 from 2006					2008 Annual Percent Change, 2008 from 2007				
Source:	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits
Arizona Department of Commerce	6.9	6.0	3.5	2.9	(10.0)	6.8	5.5	3.5	2.9	5.0
Arizona Public Service	7.8	7.5	4.0	3.0	(7.0)	7.9	8.0	4.3	3.0	5.0
ASU - Economic Outlook Center	7.2	5.6	2.9	3.0	(10.0)	7.0	5.3	3.4	2.8	(5.0)
Department of Economic Security	7.4	6.5	4.0	3.0		7.5	6.8	4.7	3.2	
ECON-LINC	7.5	6.9	4.0	3.1	(10.0)	7.2	6.7	3.8	3.0	5.0
EconLit LLC	7.5	6.9	3.8	2.9	(10.0)	7.6	7.2	3.9	3.0	0.0
Eggert Economic Enterprises Inc.	7.3	6.7	3.6	3.1	(8.1)	7.0	6.4	3.5	3.2	(4.6)
Elliott D. Pollack & Co.	7.4	5.8	4.0	3.5	(25.0)	7.0	4.5	3.0	3.0	15.0
H. C. Reardon Economics	6.8	6.8	4.0	3.0	(10.0)	8.0	7.0	5.3	3.2	15.0
Joint Legislative Budget Committee	7.5	6.7	3.7	3.0	(7.0)	7.2	6.0	3.2	3.0	(5.0)
The Maguire Company	7.4	7.1	4.1	3.1	(8.0)	7.4	7.0	3.9	3.1	(10.0)
Davidson Fixed Income Management	7.4	7.0	3.7			7.8	7.2	3.7		
NAU - BBER	7.7	6.4	3.7	2.7	(5.0)	8.1	6.5	3.9	2.8	0.0
Salt River Project	7.0	6.0	3.5	3.0	(15.0)	8.0	7.0	4.0	3.0	0.0
Stellar Capital Management	7.1	6.5	3.6	2.7	(9.0)	7.8	6.9	3.7	2.7	0.0
UA - Eller College	6.6	5.1	2.4	3.3	(11.6)	6.4	4.9	2.3	2.9	10.0
VisionEcon	7.2	6.9	3.5	2.9	(2.0)	6.8	7.0	2.2	2.9	
Wells Fargo & Co.	7.4	6.3	3.6	2.7	(9.0)	7.0	6.0	3.2	2.6	(7.0)
Consensus Forecast — This Month	**7.3**	**6.5**	**3.6**	**3.0**	**(9.8)**	**7.4**	**6.4**	**3.6**	**3.0**	**1.6**
— Last Month	**7.3**	**6.6**	**3.7**	**2.9**	**(6.8)**					

CALIFORNIA

	2007 Annual Percent Change, 2007 from 2006					2008 Annual Percent Change, 2008 from 2007				
Source:	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits
Anonymous	5.8	5.3	1.5	1.7	(1.2)					
California State University, Long Beach *	4.9	5.7	1.8	2.0	(0.8)					
Chapman University	5.5	4.6	0.9	1.4	(12.4)	6.2	5.9	1.3	1.4	0.0
L.A. County Economic Development Corp.	6.0	5.5	0.9	1.2	(8.5)	6.2	5.9	1.3	1.2	(2.0)
Legislative Analyst's Office	5.4	4.7	1.3	1.1	(8.7)					
UCLA - Business Forecasting Project	4.3	4.2	0.5	1.1	(16.8)	4.6	4.7	1.0	1.1	4.4
University of the Pacific	5.5	2.6	1.4	1.0	(8.9)	5.4	4.3	1.1	1.0	(9.7)
Wells Fargo Company	4.8	4.0	1.0	1.0	(8.5)	5.4	4.2	1.2	1.0	(5.0)
Consensus Forecast — This Month	**5.3**	**4.4**	**1.1**	**1.2**	**(9.3)**	**5.6**	**5.0**	**1.2**	**1.1**	**(2.5)**
— Last Month	**5.3**	**4.5**	**1.1**	**1.3**	**(7.7)**					

*This forecast is for Southern California only

CONSENSUS FORECASTS

WESTERN BLUE CHIP ECONOMIC FORECAST

Methodology

The consensus forecasting approach used in the *Western Blue Chip* was inspired by Robert J. Eggert of Sedona, Arizona. Eggert popularized consensus forecasting with the introduction of his widely cited newsletter on the national economy, Blue Chip Economic Indicators. This approach has been consistently shown to be more accurate than projections from an individual forecaster.

Consensus panelists for the *Western Blue Chip* are drawn from leading firms, universities and state agencies across the West. Panelists are contacted during the first week of the month and forecast data are compiled by telephone, fax, e-mail and online submission until the third week of the month. These data are then published during the first week of the subsequent month. Thus, the data are current for the month of publication. The consensus for each state is the mean of all forecasts shown in the table. Data are expressed as annual percentage changes relative to the annual average value for each indicator during the previous year. Since not all panelists revise their forecasts each month, changes in the consensus may result from revisions by an individual contributor.

ARIZONA

	2008 Annual Percent Change, 2008 from 2007					2009 Annual Percent Change, 2009 from 2008				
Source:	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits
Arizona Department of Commerce	5.5	5.1	2.8	2.8	-8.0	5.5	5.5	3.2	2.9	10.0
Arizona Public Service	6.2	5.5	2.3	2.6	-20.0	7.1	6.5	3.7	3.2	4.0
ASU - Economic Outlook Center	4.5	2.0	2.5	2.7	-18.0	4.7	3.0	2.8	2.5	0.0
Davidson Fixed Income Management	6.5	5.6	2.9			7.9	6.6	3.9		
ECON-LINC	6.4	4.2	2.5	2.7	-15.0	6.6	5.8	2.5	3.0	-5.0
EconLit LLC	6.2	2.2	1.5	2.8	-20.0	6.5	3.0	1.8	2.8	5.0
Elliott D. Pollack & Co.	5.5	1.0	1.0	2.5	-20.0	6.0	2.5	2.0	2.5	0.0
Grand Canyon University	5.6	4.0	1.2	3.0	0.0	3.9	1.3	0.7	2.8	5.0
H. C. Reardon Economics	5.6	5.0	3.0	2.8	-15.0	6.5	5.2	3.0	2.8	0.0
Joint Legislative Budget Committee	6.5	5.0	2.8	3.0	-10.0	6.2	5.0	2.7	2.8	-5.0
The Maguire Company	6.4	5.0	2.2	3.0	-15.0	6.2	5.4	2.8	3.0	-5.0
NAU - BBER	6.7	1.6	3.0	2.4	-5.0	7.5	2.7	4.0	2.3	2.3
Salt River Project	5.5	3.1	1.9	2.8	-15.0	6.2	4.5	2.4	2.6	12.0
Stellar Capital Management	6.5	5.5	3.0	2.6	-10.0	7.9	6.9	3.9	2.7	10.0
UA - Eller College	3.4	0.7	-0.4	2.7	-22.5	3.5	3.0	0.0	2.2	19.3
Wells Fargo & Co.	6.4	5.3	2.7	2.8	-10.3	6.1	5.0	2.5	2.8	-6.4
Consensus Forecast — This Month	**5.8**	**3.8**	**2.2**	**2.7**	**-13.6**	**6.1**	**4.5**	**2.6**	**2.7**	**3.1**
— Last Month	**6.3**	**4.4**	**2.5**	**2.8**	**-8.0**					

CALIFORNIA

	2008 Annual Percent Change, 2008 from 2007					2009 Annual Percent Change, 2009 from 2008				
Source:	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits
Anonymous	4.8	3.4	0.7	1.2	-21.3	5.2	4.6	1.0	1.2	21.0
California State University, Long Beach *	5.9	6.5	1.8	1.7	-0.5					
Chapman University	3.1	2.6	0.1	1.1	-11.0	4.8	4.4	1.2	1.2	4.6
L.A. County Economic Development Corp.	4.9	-1.2	0.5	1.1	-26.4	5.2	1.6	1.0	1.1	3.0
Legislative Analyst's Office	4.9	3.8	1.0	1.2	3.3	5.3	4.7	1.3	1.3	19.2
UCLA - Business Forecasting Project	3.5	3.2	0.5	1.1	-8.8	4.6	4.0	0.9	1.0	18.2
University of the Pacific	4.7	4.1	0.8	1.0	-3.5					
Wells Fargo Company	4.0	3.1	0.5	1.0	-20.0	5.3	2.9	1.3	1.0	-3.0
Consensus Forecast — This Month	**4.3**	**2.7**	**0.6**	**1.1**	**-12.5**	**5.1**	**3.7**	**1.1**	**1.1**	**10.5**
— Last Month	**5.0**	**4.1**	**1.1**	**1.1**	**-1.0**					

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CONSENSUS FORECASTS

WESTERN BLUE CHIP ECONOMIC FORECAST

Methodology

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ARIZONA

	2008 Annual Percent Change, 2008 from 2007					2009 Annual Percent Change, 2009 from 2008				
Source:	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Popu-lation Growth	Single-family Housing Permits	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Popu-lation Growth	Single-family Housing Permits
Arizona Department of Commerce	4.6	1.4	0.3	2.6	-20.0	5.0	3.6	1.4	2.7	4.0
Arizona Public Service	6.2	5.5	2.3	2.6	-20.0	7.1	6.5	3.7	3.2	4.0
ASU - Economic Outlook Center	4.5	1.2	1.5	2.7	-18.0	4.7	2.5	2.5	2.5	0.0
Davidson Fixed Income Management	6.1	4.7	2.2			7.9	6.6	3.9		
ECON-LINC	5.6	2.1	1.8	2.5	-20.0	6.4	4.6	2.2	2.4	-5.0
EconLit LLC	5.9	2.2	1.5	2.8	-20.0	6.0	3.0	1.8	2.8	5.0
Elliott D. Pollack & Co.	5.0	-1.0	-2.0	2.0	-25.0	5.5	2.5	1.0	2.5	0.0
Grand Canyon University	5.6	4.0	1.2	3.0	0.0	3.9	1.3	0.7	2.8	5.0
H. C. Reardon Economics	4.5	1.0	0.0	2.8	-20.0	4.8	3.0	2.0	2.8	0.0
Joint Legislative Budget Committee	5.5	2.5	1.3	2.8	-12.0	5.7	3.5	2.5	2.8	0.0
The Maguire Company	6.4	5.0	2.2	3.0	-15.0	6.2	5.4	2.8	3.0	-5.0
NAU - BBER	5.7	0.8	2.0	2.4	-10.0	7.5	2.2	3.0	2.1	2.3
Salt River Project	5.2	2.2	0.8	2.7	-22.0	5.9	4.3	2.2	2.5	10.0
Stellar Capital Management	6.1	4.5	2.2	2.5	-18.0	7.2	6.5	3.5	2.7	10.0
UA - Eller College	3.4	0.7	-0.4	2.7	-22.5	3.5	3.0	0.0	2.2	19.3
Wells Fargo & Co.	5.9	4.5	0.2	2.8	-13.0	5.7	4.4	0.7	2.8	-9.0
Consensus Forecast — This Month	**5.4**	**2.6**	**1.1**	**2.7**	**-17.0**	**5.8**	**3.9**	**2.1**	**2.7**	**2.7**
— Last Month	**6.0**	**4.0**	**2.2**	**2.7**	**-12.7**	**6.3**	**4.7**	**2.7**	**2.7**	**3.1**

CALIFORNIA

	2008 Annual Percent Change, 2008 from 2007					2009 Annual Percent Change, 2009 from 2008				
Source:	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Popu-lation Growth	Single-family Housing Permits	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Popu-lation Growth	Single-family Housing Permits
Anonymous	4.8	3.4	0.7	1.2	-21.3	5.2	4.6	1.0	1.2	21.0
California State University, Long Beach *	5.9	6.5	1.8	1.7	-0.5					
Chapman University	2.5	1.9	-0.5	1.1	-14.9	4.5	4.3	1.2	1.1	3.5
L.A. County Economic Development Corp.	4.9	-1.6	0.7	1.1	-26.0	5.2	1.5	1.0	1.1	3.0
Legislative Analyst's Office	4.7	3.6	0.6	1.1	-18.2	5.1	3.8	0.9	1.1	5.6
UCLA - Business Forecasting Project	3.0	2.2	-0.1	1.1	-41.6	4.1	3.5	0.7	1.1	5.3
University of the Pacific	5.3	1.1	0.9	0.8	-10.1	5.4	3.5	1.4	0.8	20.2
Wells Fargo Company	3.7	2.7	0.2	1.0	-24.0	5.0	2.9	1.0	1.0	-5.0
Consensus Forecast — This Month	**4.1**	**1.9**	**0.4**	**1.1**	**-22.3**	**4.9**	**3.4**	**1.0**	**1.1**	**7.7**
— Last Month	**4.3**	**2.2**	**0.5**	**1.1**	**-17.0**	**5.1**	**3.6**	**1.1**	**1.1**	**9.8**

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CONSENSUS FORECASTS

WESTERN BLUE CHIP ECONOMIC FORECAST

Methodology

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ARIZONA

	2008 Annual Percent Change, 2008 from 2007					2009 Annual Percent Change, 2009 from 2008				
Source:	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Popu-lation Growth	Single-family Housing Permits	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Popu-lation Growth	Single-family Housing Permits
Arizona Department of Commerce	4.6	1.4	0.3	2.6	-20.0	5.3	3.6	1.4	2.2	4.0
Arizona Public Service	3.2	1.1	-1.3	1.5	-30.0	3.2	3.7	0.5	1.5	4.0
ASU - Economic Outlook Center	4.5	1.2	1.5	2.7	-18.0	4.7	2.5	2.5	2.5	0.0
Davidson Fixed Income Management	5.7	3.3	1.5			7.9	6.6	3.9		
ECON-LINC	5.8	2.1	1.2	2.5	-20.0	6.4	4.6	2.2	2.4	-5.0
EconLit LLC	5.5	2.2	1.5	2.8	-20.0	6.0	3.0	1.8	2.8	5.0
Elliott D. Pollack & Co.	4.0	-1.5	-2.0	2.0	-25.0	5.0	2.5	1.0	2.5	0.0
H. C. Reardon Economics	4.5	1.0	0.0	2.8	-20.0	4.8	3.0	2.0	2.8	0.0
Joint Legislative Budget Committee	5.5	1.5	1.0	2.7	-15.0	5.7	3.5	2.2	2.8	1.0
The Maguire Company	6.4	5.0	2.2	3.0	-15.0	6.2	5.4	2.8	3.0	-5.0
NAU - BBER	5.7	-0.1	1.5	2.2	-21.0	7.5	2.4	2.7	2.1	2.3
Salt River Project	4.8	1.8	0.4	2.6	-22.0	5.9	4.3	2.2	2.5	10.0
Stellar Capital Management	6.1	4.5	2.2	2.5	-18.0	6.9	6.5	3.5	2.7	7.5
UA - Eller College	3.4	0.7	-0.4	2.7	-22.5	3.5	3.0	0.0	2.2	19.3
VisionEcon/Governing Star Group	5.6	4.0	1.2	3.0	0.0	3.9	1.3	0.7	2.8	5.0
Wells Fargo & Co.	5.7	2.6	0.2	2.8	-17.0	5.5	2.7	0.6	2.8	-10.0
Consensus Forecast — This Month	**5.1**	**1.9**	**0.7**	**2.6**	**-18.9**	**5.5**	**3.7**	**1.9**	**2.5**	**2.5**
— Last Month	**5.4**	**2.6**	**1.1**	**2.7**	**-17.0**	**5.8**	**3.9**	**2.1**	**2.7**	**2.7**

CALIFORNIA

	2008 Annual Percent Change, 2008 from 2007					2009 Annual Percent Change, 2009 from 2008				
Source:	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Popu-lation Growth	Single-family Housing Permits	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Popu-lation Growth	Single-family Housing Permits
Anonymous	4.8	3.4	0.7	1.2	-21.3	5.2	4.6	1.0	1.2	21.0
California State University, Long Beach *	5.9	6.5	1.8	1.7	-0.5					
Chapman University	2.5	1.9	-0.5	1.1	-14.9	4.5	4.3	1.2	1.1	3.5
L.A. County Economic Development Corp.	4.9	-1.6	0.7	1.1	-26.4	5.2	1.7	1.0	1.1	3.0
Legislative Analyst's Office	4.7	3.6	0.6	1.1	-18.2	5.1	3.8	0.9	1.1	5.6
UCLA - Business Forecasting Project	3.0	2.2	-0.1	1.1	-41.6	4.1	3.5	0.7	1.1	5.3
University of the Pacific	4.0	1.9	0.1	0.8	-26.4	5.4	4.2	1.4	0.9	37.1
Wells Fargo Company	3.6	2.6	0.1	1.0	-24.5	4.9	2.8	0.9	1.0	-5.4
Consensus Forecast — This Month	**3.9**	**2.0**	**0.2**	**1.1**	**-24.8**	**4.9**	**3.6**	**1.0**	**1.1**	**10.0**
— Last Month	**4.1**	**1.9**	**0.4**	**1.1**	**-22.3**	**4.9**	**3.4**	**1.0**	**1.1**	**7.7**

*This forecast is for Southern California only

BLUE CHIP ECONOMIC FORECAST

WESTERN

Arizona

Forecast for December 2008

2008 Forecast					
	Annual Percent Change 2008 from 2007				
	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits
Arizona Department of Commerce	3.2	-5.0	-1.3	1.5	-35.0
Arizona Public Service	2.3	-6.8	-1.5	1.5	-50.0
ASU - Economic Outlook Center	4.0	-5.0	-1.5	2.2	-45.0
Davidson Fixed Income Management	3.3	-2.9	-1.8		
ECON-LINC	2.9	-4.8	-1.8	1.1	-45.0
EconLit LLC	3.9	0.0	-1.0	2.3	-30.0
Elliott D. Pollack & Co.	3.0	-5.0	-2.0	2.0	-50.0
Joint Legislative Budget Committee	4.0	-3.0	-1.5	2.2	-30.0
The Maguire Company	3.3	-6.0	-1.4	2.0	-40.0
NAU - BBER	4.3	-3.5	-1.5	1.7	-30.0
Salt River Project	3.6	-1.8	-1.2	1.2	-35.0
Southwest Growth Partners	2.6	-5.2	-1.6	2.2	-46.0
Stellar Capital Management	3.7	-2.0	-0.5	2.1	-35.0
UA - Eller College	3.8	-0.5	-0.3	2.3	-46.9
VisionEcon/Governing Star Group	4.5	0.5	0.3	2.5	-25.0
Wells Fargo & Co.	5.7	2.6	0.2	2.8	-17.0
Consensus - This Month	**3.6**	**-3.0**	**-1.2**	**2.0**	**-37.3**
Consensus - Last Month	3.8	-1.8	-1.0	2.1	-31.3

2009 Forecast					
	Annual Percent Change 2009 from 2008				
	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits
Arizona Department of Commerce	3.7	1.9	-0.5	2.1	2.5
Arizona Public Service	0.5	-5.0	-2.5	1.0	-15.0
ASU - Economic Outlook Center	3.0	-3.0	-1.0	2.0	5.0
Davidson Fixed Income Management	1.1	1.5	-1.3		
ECON-LINC	2.8	1.0	-0.5	1.4	-10.0
EconLit LLC	4.5	1.8	1.0	2.5	2.5
Elliott D. Pollack & Co.	2.5	0.0	-1.0	2.0	0.0
Joint Legislative Budget Committee	4.1	2.0	1.0	2.2	5.0
The Maguire Company	2.6	1.0	-1.0	1.8	0.0
NAU - BBER	7.5	1.0	3.5	1.5	10.0
Salt River Project	4.2	2.4	1.1	2.0	5.0
Southwest Growth Partners	3.2	1.2	0.5	2.4	-15.0
Stellar Capital Management	3.8	2.1	1.0	2.2	2.0
UA - Eller College	1.5	1.2	-1.5	2.0	-14.6
VisionEcon/Governing Star Group	5.3	4.4	1.3	2.4	2.0
Wells Fargo & Co.	5.5	2.7	0.6	2.8	10.0
Consensus - This Month	**3.5**	**1.0**	**0.0**	**2.0**	**-0.1**
Consensus - Last Month	4.0	2.0	0.8	2.2	1.5

Arizona

Forecast for January 2009

2009 Forecast

	Annual Percent Change 2009 from 2008				
	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits
Arizona Department of Commerce	0.6	-3.0	-2.4	1.0	-10.0
Arizona Public Service	0.5	-5.0	-2.5	1.0	-15.0
ASU - Economic Outlook Center	3.0	-3.0	-1.0	2.0	5.0
Davidson Fixed Income Management	1.1	1.5	-1.3		
ECON-LINC	1.8	-2.6	-1.1	1.4	-7.0
EconLit LLC	2.4	0.0	-1.0	2.5	0.0
Elliott D. Pollack & Co.	2.0	0.0	-1.0	1.8	-15.0
Joint Legislative Budget Committee	4.1	2.0	1.0	2.2	5.0
The Maguire Company	2.6	1.0	-1.0	1.8	0.0
NAU - BBER	4.0	1.0	1.2	1.5	1.0
Salt River Project	2.2	2.2	-1.3	1.3	2.5
Southwest Growth Partners	3.2	-1.5	-0.5	1.9	-12.0
Stellar Capital Management	3.2	1.9	-0.5	2.1	+5.0
UA - Eller College	1.5	1.2	-1.5	2.0	-14.6
VisionEcon/Governing Star Group	5.3	4.4	1.3	2.4	2.0
Wells Fargo & Co.	5.5	2.7	0.6	2.8	-10.0
Consensus - This Month	**2.7**	**0.2**	**-0.7**	**1.8**	**-2.9**
Consensus - Last Month	3.5	1.0	0.0	2.0	-0.1

2010 Forecast

	Annual Percent Change 2010 from 2009				
	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits
Arizona Department of Commerce	2.9	5.0	3.0	2.9	10.0
Arizona Public Service	4.0	3.5	0.0	1.0	0.0
ASU - Economic Outlook Center	4.8	10.0	2.0	2.5	40.0
Davidson Fixed Income Management	3.0	2.5	1.5		
ECON-LINC	3.7	2.8	2.2	2.0	18.0
EconLit LLC	3.3	1.9	2.2	2.3	2.5
Elliott D. Pollack & Co.	4.5	5.0	2.5	2.2	20.0
Joint Legislative Budget Committee					
The Maguire Company					
NAU - BBER	5.0	2.0	3.0	1.5	3.0
Salt River Project	4.6	3.2	1.1	2.1	20.0
Southwest Growth Partners	5.8	1.5	1.2	2.2	10.0
Stellar Capital Management	4.5	4.5	2.2	2.0	15.0
UA - Eller College					
VisionEcon/Governing Star Group					
Wells Fargo & Co.					
Consensus - This Month	**4.0**	**3.8**	**1.9**	**2.1**	**13.9**

Arizona Update and Outlook

Arizona's unemployment rate rose to 6.3 percent in November, below the November national figure of 6.7 percent, but up from 6.1 percent in October.

The Grand Canyon State lost 83,100 jobs in November compared to 2007, a decrease of 3.1 percent. The Arizona Department of Commerce notes that this is the greatest year-over-year percentage decline since the spring of 1975 (link: http://www.workforce.az.gov/admin/uploadedPublications/PrDec08.pdf).

Construction in the Grand Canyon State is still shrinking, with another 2,800 jobs lost in November. Construction employment in November was down 16.5 percent from 2007. Retail weakened by more with double-digit year-over-year job losses in November in furniture stores (-12.2 percent), department stores (-12.1 percent) and clothing stores (-12.1 percent).

But in the midst of troubling indicator reports, Arizona economy-watchers were pleasantly surprised by recent population growth estimates released by the U.S. Census Bureau. The Grand Canyon State ranked second (behind Utah) in the rate of population growth (2.3 percent) for

Arizona

Forecast for January 2010

2009 Forecast

	Annual Percent Change 2009 from 2008				
	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits
Arizona Department of Commerce	-3.0	-13.4	-6.8	0.8	-26.6
Arizona Public Service	-3.9	-12.0	-6.5	1.0	-27.0
ASU - Economic Outlook Center	-2.5	-10.0	-7.0	1.5	-40.0
Davidson Fixed Income Management	-2.5	-6.0	-5.8	0.9	-40.0
ECON-LINC	-3.5	-8.3	-6.5	0.5	-38.0
EconLit LLC	-0.5	-6.0	-4.1	1.3	-30.0
Elliott D. Pollack & Co.	-2.0	-9.0	-7.0	0.8	-40.0
Joint Legislative Budget Committee	-2.0	-11.0	-6.0	1.0	-35.0
The Maguire Company	-2.0	-10.0	-6.5	0.9	-35.0
NAU - BBER	-1.5	-9.0	-4.5	0.8	-30.0
Salt River Project	-2.2	-9.6	-6.4	1.1	-33.0
Southwest Growth Partners	-3.5	-4.9	-5.2	0.7	-32.0
Stellar Capital Management	-0.8	-7.0	-4.8	0.9	-30.0
UA - Eller College	-2.6	-8.8	-7.1	1.1	-33.4
VisionEcon/Governing Star Group	1.6	0.1	0.0	1.4	-1.4
Wells Fargo & Company - MN	-1.3	-10.5	-7.2	1.5	-34.0
Consensus - This Month	**-2.0**	**-8.5**	**-5.6**	**1.0**	**-31.6**
Consensus - Last Month	-1.6	-8.9	-5.7	1.2	-32.6

2010 Forecast

	Annual Percent Change 2010 from 2009				
	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits
Arizona Department of Commerce	-2.5	-12.9	-0.7	0.8	-1.5
Arizona Public Service	4.4	5.0	1.5	1.0	0.0
ASU - Economic Outlook Center	2.0	5.0	-1.0	1.8	50.0
Davidson Fixed Income Management	2.8	2.5	0.9	1.1	15.0
ECON-LINC	2.2	3.2	0.4	0.8	12.0
EconLit LLC	2.2	3.0	0.5	1.6	15.0
Elliott D. Pollack & Co.	1.0	5.0	-1.0	1.4	20.0
Joint Legislative Budget Committee	2.0	4.0	1.0	1.5	20.0
The Maguire Company	2.0	5.0	-1.0	1.5	15.0
NAU - BBER	1.5	1.5	1.0	1.0	20.0
Salt River Project	2.1	4.4	0.8	1.2	25.0
Southwest Growth Partners	1.5	2.0	0.8	0.9	6.0
Stellar Capital Management	2.5	3.5	1.5	1.2	15.0
UA - Eller College	0.4	4.7	-2.7	1.0	38.8
VisionEcon/Governing Star Group	4.5	5.5	1.9	2.2	16.4
Wells Fargo & Company - MN	1.7	2.0	-0.1	1.7	7.1
Consensus - This Month	**1.9**	**2.7**	**0.2**	**1.3**	**17.1**
Consensus - Last Month	2.2	3.5	0.3	1.3	18.5

Arizona Update and Outlook

With some luck, the U.S. economy will pull Arizona along. It will be a long slog for real estate of any kind.

ECON-LINC

Total nonfarm employment gained 12,800 jobs in November (+0.5 percent). This is a good turnaround from November 2008 when total nonfarm employment lost 19,000 (-0.7 percent). The Private Sector accounted for 11,100 of the 12,800 job gains. Nine of the 11 sectors posted job gains, and two showed losses. Most of the gains were in Trade, Transportation, and Utilities; Professional and Business Services; and Leisure and Hospitality. Over-the-year, total nonfarm employment continued to show losses with employment levels 143,800 (-5.6 percent) lower than November 2008. Continuing a trend, November indicated a slowdown in the rate of over-the-year job losses. Construction continued to be the

Arizona

Forecast for January 2011

2010 Forecast

	Annual Percent Change 2010 from 2009				
	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits
Arizona Department of Commerce	2.3	-2.0	-1.1	0.5	-13.5
Arizona Public Service	2.7	1.0	1.0	1.0	-10.0
ASU - Economic Outlook Center	2.0	1.0	-1.5	1.4	-5.0
Davidson Fixed Income Management	1.7	2.5	-1.0	0.6	-5.0
ECON-LINC	2.2	1.5	-0.3	1.0	10.0
EconLit LLC	2.0	2.4	0.0	1.1	-5.0
Elliott D. Pollack & Co.	2.5	0.0	-1.0	1.0	0.0
Joint Legislative Budget Committee	2.5	-1.1	-0.9	1.1	-13.0
The Maguire Company	2.2	1.0	-1.0	1.0	5.0
NAU - BBER	2.1	1.6	-0.1	0.7	8.0
Salt River Project	1.8	4.3	0.2	1.3	20.0
Southwest Growth Partners	2.1	1.7	-0.6	1.1	-8.0
Stellar Capital Management	2.5	3.3	0.7	1.0	-10.0
UA - Eller College	2.4	0.7	-1.2	1.2	-9.5
VisionEcon/Governing Star Group	2.3	1.9	0.4	1.1	-5.0
Wells Fargo & Company - MN	2.1	2.8	-1.4	1.4	14.0
Consensus - This Month	**2.2**	**1.3**	**-0.6**	**1.0**	**-1.1**
Consensus - Last Month	2.2	1.5	-0.5	1.1	1.1

2011 Forecast

	Annual Percent Change 2011 from 2010				
	Current $ Personal Income	Retail Sales	Wage & Salary Empl.	Population Growth	Single-family Housing Permits
Arizona Department of Commerce	2.8	2.9	0.7	0.7	13.5
Arizona Public Service	5.0	6.0	1.5	1.1	30.0
ASU - Economic Outlook Center	3.5	6.0	2.0	1.8	25.0
Davidson Fixed Income Management	2.5	4.0	0.9	0.9	10.0
ECON-LINC	3.3	6.2	2.2	1.2	25.0
EconLit LLC	3.5	7.0	2.0	1.6	30.0
Elliott D. Pollack & Co.	4.0	8.0	2.0	2.0	20.0
Joint Legislative Budget Committee	3.5	5.0	1.6	1.5	27.0
The Maguire Company	3.0	7.0	2.0	1.5	20.0
NAU - BBER	2.9	4.5	1.5	1.0	25.0
Salt River Project	3.6	5.5	2.1	1.9	25.0
Southwest Growth Partners	2.8	6.0	1.5	1.5	18.0
Stellar Capital Management	3.8	5.5	1.7	1.2	25.0
UA - Eller College	3.8	7.0	1.7	1.9	76.2
VisionEcon/Governing Star Group	3.7	4.4	1.2	2.2	35.0
Wells Fargo & Company - MN	3.5	4.3	1.3	1.7	20.0
Consensus - This Month	**3.4**	**5.6**	**1.6**	**1.5**	**26.5**
Consensus - Last Month	3.3	5.5	1.6	1.4	26.0

Arizona Update and Outlook

For the fourth month in a row, Arizona has gained jobs over the year. Arizona's 1.0 percent over-the-year gain is relatively higher than the U. S. gain of 0.6 percent. The 1.0 percent gain translates into 24,900 jobs that were added since November last year. The Private Sector had a net gain of 30,800 jobs while Government lost 5,900 over the year. Trade, Transportation and Utilities had the most over-the-year job gains (+13,600) followed closely by Professional and Business Services (+12,100) and Educational and Health Services (+12,000).

Arizona Department of Commerce
http://www.workforce.az.gov

BLUE CHIP ECONOMIC FORECAST

WESTERN

ASU W.P. CAREY SCHOOL OF BUSINESS ARIZONA STATE UNIVERSITY

ARIZONA PANELISTS

Scott Anderson
Wells Fargo & Company - MN

Scott Anderson has more than 15 years of experience in the field of Macroeconomics. At Wells Fargo he is responsible for the analysis and forecasting of international, national and regional economic trends. Mr. Anderson joined Wells Fargo as senior economist in 2001, before that he held positions at Moody's Economy.com in Philadelphia, and the International Monetary Fund in Washington DC.

Mr. Anderson provides daily analyses of U.S. economic news, and produces the Wells Fargo Economics macroeconomic forecasts. He authors the Wells Fargo "California Outlook" report, the monthly "Economic Indicators" report, and the monthly Wells Fargo "Fixed Income" report, and co-authors Wells Fargo's weekly" Financial Market Strategies" report. In addition, he covers the United Kingdom, China, South Korea, Japan, Hong Kong, and Singapore as part of our bi-monthly international report.

Mr. Anderson's research is widely read by the financial and business community and he has appeared in numerous media including: CNN, Bloomberg, MSNBC, CBS MarketWatch, BBC, NPR, *Wall Street Journal, New York Times, Financial Times, Washington Post, Los Angeles Times, Chicago Tribune, USA Today, San Francisco Chronicle.*

Brian Cary
Salt River Project

Dwight Duncan
EconLit LLC

Pete Ewen
Arizona Public Service

Dennis Foster

NAU - BBER

Neal Helm
Davidson Fixed Income Management

Neal Helm has served as a portfolio manager for governments in Arizona since 2003. Mr. Helm also served as Arizona Deputy State Treasurer for investments for 20 years. In that position, he was directly responsible for the management, strategy, and trading decisions for the $8 billion portfolio. The portfolio included high-grade corporate bonds, mortgage-backed bonds, asset-backed bonds and money market products. Mr. Helm was responsible for suggesting and implementing policies and procedures affecting the investment portfolio and ensuring that the investments complied with the adopted policy. Prior to joining the Treasurer's staff, Mr. Helm was employed as an analyst for the State Senate Finance Committee. Mr. Helm holds a B.S. degree in Economics from Arizona State University. Mr. Helm is a member of the Arizona and Western Blue Chip Economic Forecasting Panel and the Arizona Department of Transportation's Regional Economic Forecasting Group. He is an Assistant Scoutmaster for the Boy Scouts, and is a veteran.

John Lucking
ECON-LINC

Alan Maguire
The Maguire Company

Alan Maguire is the President and Principal Economist of The Maguire Company, an independent, economic forecasting and public policy consulting firm. Prior to forming The Maguire Company, Alan was a senior investment banker with a regional securities firm. During his tenure, he was the leading financial advisor in the State of Arizona and served as either senior manager or senior financial advisor on over $1 billion in tax-exempt financing.

From 1983 to 1987, Alan was the Chief Deputy in the Office of the State Treasurer where he had overall management responsibility for an annual cash flow of $6 billion and an internally managed, fixed income investment portfolio of more than $2 billion.

He previously served as the Economic Advisor to the Arizona State Senate, in which he was involved in all legislation with either a direct or indirect impact on the municipal fiscal structure of state and local government in Arizona.

Alan has served as an advisor to four Arizona Governors, four Arizona Senate Presidents, and two Arizona House Speakers. His community organizations including serving as President of the Arizona Economic Forum and as a member of the Arizona Economic Estimates Commission, the Arizona Property Tax Oversight Commission, the Phoenix Economic Club, and the Arizona Economic Roundtable. He is past Chairman of the Arizona Town Hall, past Chairman of the Arizona State Retirement System Board and past President of the Maricopa County Industrial Development Authority. He is an original member of the Arizona, Western States, and Metro-Phoenix Blue Chip Economic Forecast Panels.

Lee McPheters
ASU - Economic Outlook Center

Lee McPheters is Research Professor of Economics in the W. P. Carey School of Business at Arizona State University and Director of the school's JPMorgan Chase Economic Outlook Center. The Center specializes in economic forecasts for Arizona and the Western states. Dr. McPheters is editor of the *Arizona Blue Chip Economic Forecast* and the *Western Blue Chip Economic Forecast* newsletters, published monthly by the Center.

His writings on the Western region have been quoted in the *Wall Street Journal*, *USA Today*, *The Economist*, *BusinessWeek*, *The New York Times*, and *Newsweek* as well as major metropolitan area newspapers throughout the nation. He has appeared nationally on Good Morning America and CNN news, commenting on the economy of the Western states. Dr. McPheters has published numerous articles in books and professional journals including the Review of Economics and Statistics, Land Economics, the National Tax Journal, and Journal of Long Range Planning. His recent research has emphasized transportation issues in economic development, with support from the U. S. Department of Transportation, the Arizona Department of Transportation, Phoenix Sky Harbor International Airport, Boeing, and other public and corporate sources.

He has been named a Distinguished Faculty Researcher in the School of Business, and received the Faculty Service Award in 2008, presented annually to one recipient for innovative and effective service. Dr. McPheters was recognized for the best research article in *Economic Inquiry* with an award from the Western Economic Association. He is a member of the National Association of Business Economists, the American Economic Association, the Western Economic Association, the Western Regional Science Association, and is past president of the Arizona Economic Roundtable. Dr. McPheters completed his undergraduate studies at San Francisco State University and received his Ph.D. from Virginia Tech. He has been at ASU since 1976.

JLBC

Hans Olofsson
Joint Legislative Budget Committee

The Joint Legislative Budget Committee (JLBC) was established in 1966, pursuant to Laws 1966, Chapter 96. The primary powers and duties of the JLBC relate to ascertaining facts and making recommendations to the Legislature regarding all facets of the state budget, state revenues and expenditures, future fiscal needs, and the organization and functions of state government.

David Petrenka
Davidson Fixed Income Management

Elliot Pollack
Elliott D. Pollack & Co.

Elliott D. Pollack is Chief Executive Officer of Elliott D. Pollack and Company in Scottsdale, Arizona, an economic and real estate consulting firm established in 1987, which provides a broad range of services, specializing in Arizona economics and real estate.

The firm maintains the most comprehensive economic database in Arizona, allowing it to accurately conduct economic forecasting, develop economic impact studies and prepare demographic analyses and forecasts.

Elliott D. Pollack and Company currently serves as the economics department for Maricopa County. As well, the firm serves a broad client base of both public and private sector entities that range from law firms and real estate developers to school districts and utility companies.

Mr. Pollack has syndicated and master planned numerous properties in Arizona through affiliated companies. He is recognized for his expertise in discerning the relationship between real estate trends and land value, usage and timing for improvements and development.

He constantly monitors construction, sales and leasing activity in the Phoenix metropolitan area, to determine absorption rates and anticipated time frames for market recovery. Mr. Pollack conducts marketability and supply demand studies on retail, industrial and residential properties. He also is an expert in the valuation of fractionalized interests in limited partnerships.

Mr. Pollack is widely sought after as a *member, consultant* and speaker for numerous economic and real estate boards and organizations. He also is respected by local, state and national news media as an expert source for economic and real estate matters.

During his career in the Phoenix metropolitan area, Mr. Pollack has undertaken extensive economic studies that examine real estate projects from a myriad of perspectives. Under contract to the Arizona State Land Department as a Land Disposition Consultant, Mr. Pollack provided services in the areas of land valuation, marketability studies, feasibility analysis, infrastructure cost analysis and commercial lease analysis.

He has developed models of real estate value appreciation for the Phoenix area that are devoted to analyzing alternative land use strategies for property and economic feasibility. Mr. Pollack served as Chief Economist of Valley National Bank in Arizona for 14 years, prior to establishing his consulting firm. His responsibilities included developing and maintaining the institution's asset/liability model and state and national econometric model; providing local, state and national economic forecasting to the Board of Directors, customers, businesses, industry and analysts; and serving as editor for Valley National Bank's monthly economic publication *Arizona Progress* and the annual *Arizona Statistical Review*.

Mr. Pollack earned a Bachelor of Science in Accounting from Boston University in 1967 and a Masters in Business Administration from University of Southern California in 1968.

Steve Pritulsky
Southwest Growth Partners

Steve Pritulsky is the Founder and Principal of Southwest Growth Partners, an integrated advisory services, land development and investment company based in Phoenix, Arizona. Mr. Pritulsky has more than 24 years of real estate economics consulting, property portfolio due diligence and land development experience that spans the metropolitan Phoenix area, Arizona, Las Vegas, Southern California and other markets throughout the Southwestern U.S. Steve most recently served as Senior Vice President of Operations for Newland Communities' Phoenix Division and, prior to founding SGP in 2006, was Vice President of Planning and Development for Pulte Homes/Del Webb.

Mr. Pritulsky has delivered industry insights to the *Pacific Coast Builders Conference (PCBC) and the Arizona Economic Outlook*. Steve has also served as a guest lecturer in Regional & Urban Economic at Northern Arizona University. He has been involved for the past two decades in the Arizona Economic Roundtable, a forecaster for the *Western, Arizona and Metro Phoenix Blue Chip Real Estate and Economic Forecast Panels*, and has served in various capacities the Urban Land Institute, National Golf Foundation, the Home Builders Association of Central Arizona, the Maricopa Association of Governments and Valley Partnership.

Debra Roubik
VisionEcon/Governing Star Group

Debra J. Roubik began her career as an economist at Chicago's Harris Trust and Savings Bank where she was also solely responsible for the bank's macroeconomic model. During her tenure, the bank was rated number one for the most accurate interest rate forecast and she also provided research and editing for the book, "Taking the Voodoo Out of Economics." Later in her career, she held the positions of vice-president of Stotler Economics, Manager of Revenue Forecasting for Atchison Topeka & Santa Fe Railway and Economist for DES, Research Administration. Currently, Debra has been the Chief Economist and Founder of VisionEcon, a consulting firm that specializes in analyzing legislative, governmental and economic development impacts on local economies. She has been quoted by *Barron's, New York Times Service, USA Today, The Chicago Tribune, The Daily Herald, The Arizona Republic, The Business Journal, Tucson Citizen, The Arizona Daily Star* and *Today's Arizona Woman*. She has been published in *Chicago's Commerce Magazine, Phoenix Magazine, The Arizona Republic* and U of A's *Arizona's Economy*. She also has been heard on television and radio programs such as KAET, KUAT, Channel 12's KPNX TV and KFNX 1100 AM radio. Debra possesses a Bachelor of Science in Economics and Probability and Statistics, and is completing an MBA in Finance.

Stephen Taddie
Stellar Capital Management

Mr. Taddie is a Co-Founder and Managing Member of Stellar Capital Management, a Phoenix-based investment advisory firm specializing in custom-tailored portfolio management. He has over 20 years of professional experience in the investment field, spending seven years in the brokerage business with Merrill Lynch and Prudential Securities, prior to embarking on a career in portfolio management and ultimately forming his own firm and co-founding Stellar Capital Management. During that time he has worked with a select group of clients ranging from publicly traded corporations, government entities, and Native American Indian Tribes, to high net worth individuals and families across the country. He has been a frequent speaker on economic and investment management trends, has authored numerous articles and has often been quoted on the same subjects.

He is a member of the National Association for Business Economists, past President and member of the Arizona Economic Round Table, member and past board member of the Central Arizona Estate Planning Conference, a member of the CFA Institute, the Phoenix CFA Society, and is an Arbitrator with the Financial Industry Regulatory Authority (FINRA). He has been a member of the Economic Club of Phoenix, the Western Pension & Benefits Conference, Arizona Town Hall, and the Madison School District Financial Oversight Committee. He serves on the Finance Committee for the Desert Botanical Gardens, and has served on the Executive Board of Directors for the Foundation for Burns & Trauma, the Foothills Foundation, and on the Board of the Phoenix Camelback Rotary Club, and has also volunteered with Junior Achievement and coached youth sports teams.

Mr. Taddie holds a Bachelor of Science degree in Business and Economics from Lehigh University, and a Master of Business Administration from the University of Phoenix.

Marshall Vest
UA - Eller College

Marshall J. Vest is director of the Economic and Business Research Center (EBR) at the University of Arizona's Eller College of Management. EBR was founded in 1949 with the purpose of practical investigation and study of business and economic issues that pertain to Arizona. The Center researches and disseminates economic information that businesses and government units use to intelligently deal with current developments as well as to plan for the future.

Vest is an authority on Arizona's economy and is a consultant to a number of Arizona's largest companies, Arizona's Governor and Legislature, as well as a number of local governments. With 30 years heading the College's Forecasting Project, Marshall has

authored over 175 articles on the economy. These forecasts are recognized as among the most accurate in the western states, and he is frequently quoted in both the local and national business press. He also authors the Arizona Business Leaders Confidence Index (BLCI), produced in partnership with Compass Bank, which surveys Arizona business leaders to ascertain their expectations for the immediate future.

Vest is past-president of the Association for University Economic and Business Research, whose membership includes university-based applied research centers from across the country. He also is a member of the National Association for Business Economics (NABE) and is past president of the Arizona Chapter of NABE.

Jack York
Arizona Department of Commerce

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, Chairman
BOB STUMP
PAUL NEWMAN
SANDRA D. KENNEDY
BRENDA. BURNS

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS AGUA FRIA WATER, HAVASU WATER AND MOHAVE WATER DISTRICTS	DOCKET NO. W-01303A-10-0448

REJOINDER TESTIMONY
OF
PAUL G. TOWNSLEY
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
AUGUST 9, 2011

REJOINDER TESTIMONY
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EXECUTIVE SUMMARY

Paul G. Townsley testifies that:

Arizona American acted prudently in the design, construction, and operation of the White Tanks Surface Water Treatment Plant, and recommends the Commission find that the White Tanks Plant is used and useful and that it should be included in rate base for the purpose of setting new rates for Arizona-American's Agua Fria Water District.

An Infrastructure System Replacement Surcharge (ISRS) will provide for the systematic replacement of aged infrastructure in a manner that does not lead to the amount of perceived rate shock that would be encountered under traditional ratemaking procedures, and recommends the Commission adopt it in this case for the Mohave and Havasu Water Districts.

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Paul G. Townsley. My business address is 2355 North Pinnacle Peak Road, Suite 300, Phoenix, AZ 85027.

Q. ARE YOU THE SAME PAUL G. TOWNSLEY WHO PROVIDED DIRECT TESTIMONY AND REBUTTAL TESTIMONY IN THIS CASE?

A. Yes I am.

II PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. Please see the executive summary of my Rejoinder Testimony.

III WHITE TANKS REGIONAL WATER TREATMENT PLANT

Q. CERTAIN PARTIES TO THIS CASE CONTINUE TO ALLEGE THAT THE COMPANY WAS NOT PRUDENT IN CONSTRUCTING THE WHITE TANKS WATER TREATMENT PLANT. HOW DO YOU RESPOND?

A. I strongly disagree with them. As I describe in some detail in my Rebuttal Testimony, the White Tanks Plant's history dates back to at least 2001 when the WESTCAP report was released. The White Tanks Plant was identified to address a need for Arizona-American to utilize its full allowance of CAP water and reduce groundwater consumption. During subsequent Commission proceedings, the White Tanks Plant was also identified to satisfy future growth needs in the Agua Fria Water District.

During the period subsequent to the release of the WESTCAP report, and continuing through the completion of the project, the Company acted prudently based on the facts known at the time. Although it is convenient for other parties in this case to argue now –

years after the fact and based on hindsight – that the Company made imprudent decisions based on today's knowledge, prudence is not determined based on hindsight.

When the Commission approved Arizona-American's White Tanks Plant financing request in Decision No. 69914 dated September 27, 2007, it was hoped that the facility could be financed by new customer hook-up fees. Unfortunately, subsequent history proved that this was not to be the case. However, none of us had the luxury of that foresight during the time that decisions were being made on the White Tanks Plant.

What is undeniable today is that the White Tanks Regional Water Treatment Plant is fully utilized in treating Arizona-American's allowance of CAP surface water and allows the Company to avoiding pumping three billion gallons of groundwater annually. No party to this case has suggested that the White Tanks Plant is uneconomical in its design, construction or operation. It was built on time and on budget and it accomplishes the purpose for which it was constructed.

Q. DID ARIZONA-AMERICAN HAVE A FORMAL PLANNING PROCESS TO REVIEW AND APPROVE ITS ANNUAL CAPITAL AND FINANCIAL PLANS?

A. Yes. Like other large utilities in the state, Arizona-American undertook a regular business planning process in order to forecast its financial plans every year. The business planning process looked out five years beginning with the next year. During the business plan development, review, and approval, many items were looked at including revenue forecasts, customer growth forecasts, changes in labor, anticipated capital projects, and changes in many operating expense line items. Typically the process was begun during the summer and ended in the fall of each year for the subsequent five-year period. This formal process allowed Arizona-American to update its outlook for the next five-year period, and it also allowed Arizona-American's parent, American Water, to better rationalize its resources among the many states competing for capital and other needs.

Arizona-American undertook this annual planning process in parallel with all of American Water's other regulated subsidiaries, and the process culminated with presentations made by Arizona-American personnel to senior American Water management in Voorhees in the fall of each year. Once Arizona-American Water board approval and American Water board approval were obtained in December, the business plan was set for the following year. It was this formalized business planning process which took into account all of the different inputs and variables for particular business units which were known at the time, to make decisions for the subsequent period.

Q. WAS THE WHITE TANKS WATER TREATMENT PLANT APPROVED AS PART OF THIS PROCESS?

A. Yes it was.

Q. DID ARIZONA-AMERICAN'S BUSINESS PLANNING PROCESS IDENTIFY THE SLOW-DOWN IN PROJECTED CUSTOMER GROWTH IN ITS AGUA FRIA WATER DISTRICT?

A. Yes eventually it did. Customer growth forecasts are very difficult to get right because there are so many factors which can influence growth rates. Nevertheless, our forecasted customer growth rates for Agua Fria Water District made each year for the subsequent five-year period are shown below:

Agua Fria Customer Growth Projections
Annual Business Plans (ABP)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
2007 - 2011 ABP	3,468	3,492	3,383	3,326	2,841				
2008 - 2012 ABP		2,270	3,492	3,383	3,326	2841			
2009 - 2013 ABP			790	1,773	2,255	2,526	2,555		
2010 - 2014 ABP				464	627	844	907	1,026	
2011 - 2015 ABP					626	698	811	1,284	1,605

It was during the development of the 2009-2013 business plan that Arizona-American significantly reduced the forecasted growth rates in its Agua Fria Water District. This revision was based on our own revised outlook for growth in this district, and coincided with reductions in a number of mainstream economic forecasts for Arizona at about the same time. Tom Broderick details in his Rejoinder Testimony, some of these changes in economic outlook for the State, but for many of us who tried to predict the economy during that period, it was not until about mid 2008 that the consensus about the degree of the housing market turn-down really became evident. Even then, many were predicting a much shorter and shallower housing turndown, and our 2009-2013 business plan anticipated returning to higher levels of customer growth in 2011.

Q. WAS THERE ANYTHING MORE THAT ARIZONA-AMERICAN COULD HAVE DONE RATHER THAN BUILD THE WHITE TANKS PLANT WHEN IT DID?

A. No. In our judgment and based on the information we had at the time, the White Tanks Plant was the only viable option available to us. We needed to place our CAP allocation into service and reduce groundwater pumping in the West Valley. We had an obligation to reliably serve potable water in our Agua Fria Water District service area and reasonable expectations, including ours, was that customer growth would continue. We had undertaken a number of short-term steps to maximize our existing water supply infrastructure including eliminating distribution system bottlenecks, entering into a short-term water lease with the Maricopa Water District, and constructing additional storage, but we felt we had reached the endpoint on available short-term fixes. We were facing a situation in which "do nothing" was not an option, and the White Tanks Water Treatment Plant appeared to be the most economic and viable solution. We acted prudently and carefully throughout the whole process and we have today a reliable renewable surface

water treatment plant which is fully utilized and providing potable water to our current Agua Fria Water District customers.

Q. WHAT IS YOUR RECOMMENDATION TO THE COMMISSION REGARDING THE WHITE TANKS WATER TREATMENT PLANT?

A. Arizona-American recommends that the Commission find that the White Tanks Plant is used and useful and that the associated plant costs be included in rate base for the purpose of setting new rates for Arizona-American's Agua Fria Water District.

IV <u>INFRASTRUCTURE SYSTEM REPLACEMENT SURCHARGE</u>

Q. SOME PARTICIPANTS IN THIS CASE CONTINUE TO OPPOSE THE COMPANY'S INFRASTRUCTURE SYSTEM REPLACEMENT SURCHARGE (ISRS). HOW DO YOU RESPOND?

A. As I stated in my Rebuttal Testimony, an Infrastructure System Replacement Surcharge (ISRS) program facilitates necessary capital investment in older service areas such as Mohave and Havasu, which would help ensure that that needed reinvestment is not deferred and that facilities are continuing to work properly. Over time, this program will improve service quality and reliability for customers, reduce Unaccounted For Water, and help prevent some of the types of infrastructure crises that are being experienced in older water and wastewater systems in other parts of the United States.

In addition, because of the gradual nature of rate increases using ISRS, Arizona-American can make regular investments in replacing aged infrastructure in the Mohave and Havasu water systems without approaching the level of perceived "rate shock" which can cause our customers, this Commission, and our Company so much angst.

Q. IT HAS BEEN ARGUED THAT ISRS COULD CREATE THE POTENTIAL FOR THE COMPANY TO OVER-EARN BASED ON THE PERIODIC AND GRADUAL NATURE OF THE ISRS REVENUE INCREASES WITHOUT CAPTURING POTENTIAL COST SAVINGS. HOW DO YOU RESPOND?

A. This should not be an issue. The concern could be adequately addressed by requiring an "earnings test" for the particular district for which the ISRS filing is being made. The earnings test could be a part of Arizona-American's required filing for increasing the ISRS amount in customer bills, and would prevent the Company from receiving an ISRS increase if it results in Arizona-American earning more than its authorized rate of return in that district.

Q. WHAT IS YOUR RECOMMENDATION TO THE COMMISSION REGARDING ISRS?

A. I encourage the Commission to adopt it in this case. ISRS will provide for the systematic replacement of aged infrastructure in a manner that does not lead to the amount of perceived rate shock that would be encountered under traditional ratemaking procedures. ISRS. It makes tremendous sense for our Mohave Water District and Havasu Water District.

Q. DOES YOUR SILENCE ON ANY OTHER ISSUES RAISED BY OTHER PARTIES TO THIS CASE CONSTITUTE YOUR ACCEPTANCE OF THEIR POSITIONS?

A. No, it does not.

Q. DOES THIS CONCLUDE YOUR REJOINDER TESTIMONY IN THIS CASE?

A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, Chairman
BOB STUMP
PAUL NEWMAN
SANDRA D. KENNEDY
BRENDA. BURNS

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS AGUA FRIA WATER, HAVASU WATER AND MOHAVE WATER DISTRICTS	DOCKET NO. W-01303A-10-0448

REJOINDER TESTIMONY
OF
JOSEPH E. GROSS
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
AUGUST 9, 2011

REJOINDER TESTIMONY
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JOSEPH E. GROSS
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EXECUTIVE SUMMARY

Joseph E. Gross addresses comments made by Staff member Ms. Hains in her surrebuttal testimony and comments made by RUCO witness Dr. Fish concerning the Lake Mohave Highlands Tank project.

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE NUMBER.

A. My name is Joseph E. Gross. My business address is 2355 West Pinnacle Peak Road, Suite 300, Phoenix, Arizona 85027; and my telephone number is 623-445-2401.

Q. ARE YOU THE SAME JOSEPH E. GROSS WHO PREVIOUSLY SUBMITTED TESTIMONY IN THIS CASE?

A. Yes.

II PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. I would like to address certain comments made by Ms. Hains and Dr. Fish in their surrebuttal testimonies.

III RESPONSE TO STAFF

Q. DO YOU AGREE WITH MS. HAINS' RECOMMENDATION TO DISALLOW THE COST OF THE INTAKE STRUCTURE AT THE WHITE TANKS PLANT?

A. No, I do not. I do agree with Ms. Hains that the intake structure is sized to accommodate 40 million gallons per day (mgd) of surface water from the Beardsley Canal, while the total treatment capacity of this initial phase of the White Tanks Plant is 20 mgd. However, as I attempted to clarify in my rebuttal testimony, MWD, the owner of the intake structure, designed this component at 40 mgd and required that it be that size in order to avoid an extended canal closure during future plant expansions and to avoid the significant costs involved with a future piecemeal expansion of the intake structure. The Company concurred with this engineering judgment, which is just one example of the

many project management decisions made throughout the design and construction phases of large projects such as the White Tanks Regional Water Treatment Plant.

Q. DO YOU AGREE WITH MS. HAINS' STATEMENT THAT THERE ARE ADDITIONAL ANNUAL OPERATIONS AND MAINTENANCE COSTS ASSOCIATED WITH THIS 40 MGD INTAKE STRUCTURE?

A. No, I do not. Only the major structural items for the additional intake capacity were constructed at this time in order to avoid future disruptions to canal and plant operations. Operating aspects of the enlarged intake structure; such as the mechanical bar screen, automated intake gate, flow meter, motors, and controls were not installed. Therefore, her statement that "[t]here is also additional annual Operations and Maintenance ("O&M") costs for the larger intake structure" is incorrect.

Q. DO YOU AGREE WITH STAFF'S RECOMMENDED ADJUSTMENT OF $298,399 FOR EXCESS CAPACITY OF THE INTAKE STRUCTURE?

A. No, I do not. However, should the Commission not accept my arguments concerning prudent project management costs and choose to disallow a portion of those costs, Ms. Hains' direct testimony Exhibit DMH-1, page 14, recommends an adjustment of $159,775 for excess capacity of the intake structure. That figure should be used, rather than the $298,399 referenced in Ms. Hains' surrebuttal testimony.

Q. CONCERNING THE FLUORIDE INJECTION SYSTEM, DO YOU AGREE WITH MS. HAINS' COMMENTS REGARDING US ENVIRONMENTAL PROTECTION AGENCY (USEPA) LEVELS FOR FLUORIDE IN DRINKING WATER?

A. No, I do not. Ms. Hains missed the point of my rebuttal testimony on this subject. She is correct that the maximum contaminant level for fluoride in drinking water is specified by USEPA at 4 milligrams per liter (mgl). That standard has nothing to do with the much lower fluoride level recommended by the US Department of Health and Human Services (USHHS) for dental health, which is between 0.7 and 1.1 mgl. Since our customers had previously been receiving groundwater with naturally occurring fluoride levels within that range, a prudent engineering decision was made to provide the capability to increase the fluoride level found in CAP water (currently 0.3 mgl) during treatment to the range recommended by USHHS for improved dental health.

IV RESPONSE TO RUCO

Q. DO YOU HAVE A RESPONSE TO DR. FISH'S RECOMMENDATION TO EXCLUDE THE LAKE MOHAVE HIGHLANDS TANK AS A POST-TEST YEAR PROJECT?

A. Yes. Utilizing the criteria normally used by the Commission for post test-year additions to rate base, I will illustrate why inclusion of this tank in rate base as a post test-year project is appropriate.

1. The $575,000 project represents a significant portion of the Company's total capital investment program of $3.3 million.
2. This project was initiated on an urgent basis in response to a Notice of Opportunity to Correct Deficiencies from the Arizona Department of Environmental Quality, dated August 20, 2009.

3. This project was completed ahead of schedule in order to provide safe and reliable service; not delayed beyond the test year.

4. Replacement of water storage tanks, at significant cost, is not a normal, on-going activity for water utilities.

5. This project is revenue neutral.

6. This project was inspected by Commission Staff and determined to be prudent, used and useful, and necessary for provision of services.

7. This project reflects appropriate, effective, and timely decision making on the part of the Company.

Therefore, I recommend that the Commission include the Mohave Highlands storage tank in rate base in this proceeding.

Q. DOES YOUR SILENCE ON ANY ISSUE RAISED BY ANY PARTY IN SURREBUTTAL TESTIMONY INDICATE YOUR ACCEPTANCE OF THEIR POSITION?

A. No.

Q. DOES THAT CONCLUDE YOUR REJOINDER TESTIMONY?

A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, Chairman
BOB STUMP
PAUL NEWMAN
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BRENDA. BURNS

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REJOINDER TESTIMONY
OF
IAN C. CROOKS
ON BEHALF OF
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EXECUTIVE SUMMARY

Ian C. Crooks testifies that:

RUCO witnesses Dr. Fish and Mr. Duffett continue to use misleading calculations to support their disallowance of fifty percent of the White Tanks Plant.

A tank maintenance program for the Agua Fria, Mohave and Havasu districts will permit the Company to conduct the same annual tank maintenance program in its Agua Fria Water District, its Mohave Water District, and its Havasu Water District that it has begun in its Sun City Water District.

White Tanks Plant water is only delivered through transmission mains to Agua Fria water plants 4, 5, 8, and 9, and only well water is delivered to Agua Fria water plants 1, 2, and 3.

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE NUMBER.

A. My name is Ian C. Crooks. My business address is 15626 N. Del Webb Blvd., Sun City, AZ 85351; and my telephone number is 623-445-2404.

Q. ARE YOU THE SAME IAN C. CROOKS WHO PREVIOUSLY SUBMITTED TESTIMONY IN THIS CASE?

A. Yes.

II PURPOSE OF REJOINDER TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY IN THIS CASE?

A. The purpose of my testimony is to respond to portions of the surrebuttal testimonies of RUCO witnesses Thomas H. Fish and Royce A. Duffet, Sun City Grand witness Michael L. Arndt, and intervener Kenneth Hewitt.

III RESPONSE TO RUCO WITNESSES THOMAS A. FISH AND ROYCE A. DUFFETT

A WHITE TANKS REGIONAL SURFACE WATER TREATMENT PLANT

Q. DR. FISH AND MR. DUFFETT REFERENCE 22,418 ACRE FEET PER YEAR (AFY) AS THE PROCESS CAPACITY OF WHITE TANKS AND USE THIS FIGURE IN AN ATTEMPT TO DETERMINE A PERCENTAGE OF THE WHITE TANK PLANT THAT IS USED AND USEFUL. HOW IS THIS NUMBER DERIVED AND IS THIS ACCURATE?

A. Their number is not accurate as it is comparing apples to oranges. In their surrebuttal testimony, Dr. Fish and Mr. Duffett again state, incorrectly, that the White Tanks Plant has the capacity to process 22,418 AFY of surface water. This 22,418 AFY figure is obtained by dividing 365 days per year and converting to this to MGD which would yield 20 MGD process capacity. In this way, they reach an annual CAP water allocation based on the plant producing 20 MGD on a continuous 24/7/365 basis. This 22,418 AFY figure is simply misleading.

Let me use an automotive highway analogy here to explain why this approach is inappropriate. If you were to tally up the total number of cars in a year that drive on a particular Phoenix freeway (I-17 for example) and then divide that number by the number of hours in a year (8,760) you would arrive at a average cars-per-hour loading of the freeway. If you were then to design and construct this freeway based on the average cars-per-hour you would undoubtedly have many fewer traffic lanes installed, automotive gridlock during work-hours, and still relatively light traffic in the middle of the night. It is not the right way to design a freeway and it is not the right way to design a water treatment plant.

As I stated in my rebuttal testimony:

> …it is critical to understand the difference between the permitted firm capacity of 13.4 MGD and total capacity of 20 MGD at the White Tanks Plant. The plant has peaked at 20 MGD to meet high system demands during the summer months but cannot operate constantly and reliably at 20 MGD. This can be seen on the chart provided earlier in my testimony, and is why water treatment plants such as the White Tanks Plant have a permitted firm capacity rating. This is the reliable and continuous rating for the plant. The White Tanks Plant is designed to operate reliably at its firm capacity of 13.4 MGD, not 20 MGD.

As other Company witnesses have also stated in testimony, the White Tanks Plant total capacity is 20 MGD and its firm capacity is 13.4 MGD. The White Tanks Plant can operate at its total capacity of 20 MGD for short periods of time but not on a continuous 24/7/365 basis due to maintenance, equipment failure, and operational activities (backwashing, cleaning, etc.). The White Tanks Plant is designed and permitted to operate reliably at its firm capacity of 13.4 MGD on a continuous 24/7/365 basis. The difference between total capacity and firm capacity is fundamental to the design and operation of utility plants. Utility plants are not designed or intended to operate at total capacity on a continuous 24/7/365 basis, any more than a passenger car's engine is designed to operate at a total output of 7,000 RPM for a continuous basis. Neither will be able to operate reliably for very long at that output. Dr. Fish's and Mr. Duffett's comparison of 22,481 AFY to 20 MGD capacity and 11,093 AFY to 9.9 MGD capacity is misleading and not applicable in determining the White Tanks Plant used and useful capacity.

Q. DR. FISH (PAGE 21) STATES THAT I AM "ATTEMPTING TO DISENGAGE THE AGUA FRIA CAP ALLOCATION AND THE WHITE TANKS PROCESSING CAPACITY." IS THIS STATEMENT CORRECT?

A. No. My intent is the exact opposite. I am attempting to "disengage" the misleading numbers presented in Dr. Fish's and Mr. Duffett's testimony. In their testimonies, they mathematically convert annual CAP allocations and White Tank Plant capacities to different units but do not consider the applicability of such conversion. They are not comparing apples to apples. Dr. Fish and Mr. Duffett continue to use White Tanks Plant total capacity of 20 MGD and 365 days a year to convert and compare plant capacity to Agua Fria's CAP allocation. This comparison is not correct or applicable. As I stated in my rebuttal testimony, the White Tanks Plant reliable firm capacity of 13.4 MGD should

be used and less than 365 days should be used because surface water delivery is stopped during the winter months for canal maintenance for 60-90 days. Canal shutdown over the past two winter seasons was 75 and 72 days, respectively. Using 75 days of shutdown or 290 days of operation, the accurate conversion of plant capacity to an annualized CAP allocation is calculated as 13.4 MGD / 0.326 MG/AF * 290 days/year = 11,920 AFY, slightly more than our Agua Fria CAP allocation of 11,093. This is far more appropriate representation of White Tank Plant Capacity than the misleading and overinflated value of 22,418 AFY used by Dr. Fish and Mr. Duffett. The White Tanks Plant capacity is a perfect match for the current Agua Fria annual CAP water allocation.

Q. IN RESPONSE (PAGE 6) TO COMPANY WITNESS MR. TOWNSLEY, DR. FISH STATES THAT HE DID NOT MAKE INCORRECT ASSUMPTIONS IN REGARDS TO PLANT CAPACITY. IS THIS ACCURATE?

A. No. Dr. Fish's assumptions were incorrect and he continues to make the same incorrect assumptions throughout his testimony, as I described above. Dr. Fish comments on page 6, lines 6-9 that:

> "..its [White Tanks] daily output exceeded 20 MGD on several occasions so the 13.4 MGD value does not seem to be a limit on the surface water the plant can process. These values were provided the Company, not assumed by me. "

Dr. Fish is correct that he did not assume the numbers, but he incorrectly uses those values to calculate misleading numbers. Again, Dr Fish simply assumes the White Tanks Plant can run at its total capacity of 20 MGD on a continuous 24/7/365 basis because it "exceed 20 MGD on several occasions" and proceeds to derive the White Tanks Plant annual surface processing capacity at 22,418 AFY (20 MGD converted to AFY). As I stated previously, this assumption is preposterous and without merit. The White Tanks Plant can peak at total capacity of 20 MGD, but cannot run at that rate over extended

periods for various operational and mechanical reasons. It can run reliability at its firm capacity of 13.4 MGD.

Q. MR. DUFFETT STATES (PAGE 6) THAT THE INTERNAL REDUNDANCY AT WHITE TANKS IS NEGATED BECAUSE OF STAGNANT GROWTH AND THE CAPACITY OF THE EXISTING WELL FIELDS. IS THIS ASSUMPTION CORRECT?

A. No. Mr. Duffett quotes an excerpt from MCESD that provides guidance on the timing of when to begin the planning for a plant expansion. This excerpt from MCESD has nothing whatsoever to do with building a new plant at a specific permitted firm capacity. The quote that he relies upon relates to plant expansion. Without the internal redundancy as proposed by Mr. Duffett, MCESD would only permit the White Tanks Plant for a firm capacity of 6.7 MGD, not 13.4 MGD as rated today, and at 6.7 MGD firm capacity, the Agua Fria CAP allocation could not be fully utilized on annual basis the White Tanks Plant.

IV <u>RESPONSE TO SUN CITY GRAND WITNESS MICHAEL L. ARNDT</u>

A <u>TANK MAINTENANCE EXPENSES</u>

Q. MR. ARNDT ARGUES AGAINST THE EXPENSE ADJUSTMENTS FOR THE COMPANY'S PROPOSED TANK MAINTENANCE PROGRAM BECAUSE THE COMPANY DID NOT SPEND ANY MONEY ON TANK MAINTENANCE IN THE RECENT PAST. DO YOU AGREE WITH MR. ARNDT'S CONCLUSION?

A. No. The Company has not spent money on a regular tank maintenance program in the Company's Districts because there is no regulatory mechanism to recover the cost associated with an annual tank maintenance program. The Commission recently approved effective January 1, 2011, the Company's Sun City Water District tank

maintenance program with an annual expense adjustment of $362,000. Prior to this approval, the Company's Sun City Water District did not spend money on annual tank maintenance either. Today, the Company's Sun City District has a vendor under contract to complete the first year of tank maintenance in the Fall 2011 at an expense equal to the $362,000 authorized. The approval of the tank maintenance program in this rate case will permit the Company to conduct the same annual tank maintenance program in its Agua Fria Water District, its Mohave Water District, and its Havasu Water District.

V RESPONSE TO INTERVENER KENNETH HEWITT

A WATER SOURCE AT WATER PLANTS 1, 2, AND 3

Q. MR. HEWITT STATES (PAGE 10) THAT BASED ON COMMENT MADE BY YOU THAT WHITE TANKS WATER REPLACED WELL WATER IN AREAS SERVED BY WATER PLANTS 1, 2, AND 3. WHAT COMMENTS IS MR. HEWITT REFERRING TO AND IS IT CORRECT?

A. I am not sure of the comments referred to by the Mr. Hewitt, as no reference is given. Regardless, the statement is incorrect. White Tanks Plant water is only delivered through transmission mains to Agua Fria water plants 4, 5, 8, and 9, and only well water is delivered to Agua Fria water plants 1, 2, and 3.

Q. DOES YOUR SILENCE ON ANY ISSUE RAISED BY ANY PARTY IN SURREBUTTAL TESTIMONY INDICATE YOUR ACCEPTANCE OF THEIR POSITION?

A. No.

Q. DOES THAT CONCLUDE YOUR REJOINDER TESTIMONY?

A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, Chairman
BOB STUMP
PAUL NEWMAN
SANDRA D. KENNEDY
BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS AGUA FRIA, HAVASU, MOHAVE AND PARADISE VALLEY WATER DISTRICTS	DOCKET NO. W-01303A-10-0448

REJOINDER TESTIMONY

OF

TROY DAY

ON BEHALF OF

ARIZONA-AMERICAN WATER COMPANY

AUGUST 9, 2011

REJOINDER TESTIMONY
OF
TROY DAY
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
AUGUST 9, 2011

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EXECUTIVE SUMMARY

Mr. Day responds to the surrebuttal testimony of Staff witness Dorothy Hains regarding water loss in the Mohave and Havasu Water Districts.

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, ADDRESS, AND TELEPHONE NUMBER.

A. My name is Troy Day. My business address is 2355 West Pinnacle Peak Road, Suite 300, Phoenix, Arizona 85027, and my telephone number is 623-445-2422.

Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY?

A. Please see my executive summary.

II RESPONSE TO COMMISSION STAFF

Q. IN HER SURREBUTTAL TESTIMONY, MS. HAINS AGAIN STATES THAT THERE IS AN ISSUE WITH WATER LOSS IN THE MOHAVE AND HAVASU DISTRICTS. WHAT IS YOUR RESPONSE?

A. The Company also recognizes that there are issues to address in these districts. That is why we have chosen to comply with Decision No. 71410 by implementing actions to mitigate water loss in these districts. That decision required us to submit a plan to reduce our water loss to less that 10% or submit a report containing analysis of why water loss reduction to below 10% is not feasible or cost effective. Rather than submit a report as to why water loss below 10% is not feasible or cost effective, the Company chose to continue to expand its efforts, which it believes is a more responsible route to take. As Ms. Hains notes in her surrebuttal testimony, however, water loss reduction is a very expensive undertaking in districts such as these.

Q. IN HER SURREBUTTAL TESTIMONY, MS. HAINS INCLUDES 2009 AND 2010 WATER LOSS FIGURES. DO YOU HAVE UPDATED INFORMATION THAT SHOWS IMPROVEMENTS IN THESE DISTRICTS?

A. Yes, below is the table that Staff submitted with its surrebuttal testimony updated to include year to date information for 2011:

District	System	Year	Gallons (pumped or purchased)	Gallons (sold)	Gallons (authorized unbillable consumption)	Water Loss %
Havasu	Lake Havasu	2009	260,059,000	216,250,000	15,665,000	10.82
		2010	268,618,000	216,500,000	180,800	19.33
		rolling through July 2011	271,957,000	219,841,000	1,930,000	18.59
Mohave	Mohave	2009	2,017,309,000	1,725,776,000	46,399,000	12.21
		2010	1,956,452,000	1,695,834,000	11,303,000	12.74
		rolling through July 2011	1,915,955,000	1,658,987,000	18,954,000	12.55
Mohave	Camp Mohave	2009	19,880,000	19,250,000	514,000	0.58
		2010	20,522,000	19,140,000	33,000	6.57
		rolling through July 2011	18,142,000	15,479,000	1,174,000	8.78
Mohave	Arizona Gateway	2009	10,440,000	8,516,000	1,533,000	3.75
		2010	8,680,000	6,580,000	0	24.19
		rolling through July 2011	8,898,000	7,373,000	140,000	15.81
Mohave	Lake Mohave	2009	28,492,000	24,683,000	14,000	13.32
		2010	27,249,000	23,716,000	0	12.97
		rolling through July 2011	25,408,000	23,461,000	223,000	6.85
Mohave	Desert Foothills	2009	282,811,000	241,844,000	2,022,000	13.77
		2010	343,981,000	244,798,000	568,000	28.67
		rolling through July 2011	341,517,000	253,058,000	956,000	25.69
Mohave	Rio Vista	2009	14,943,000	14,943,000	0	0.00
		2010	15,995,000	15,995,000	0	0.00
		rolling through July 2011	14,346,000	14,346,000	0	0.00

Q. CAN YOU EXPLAIN SOME OF THE LARGE INCREASES IN WATER LOSS BETWEEN 2009 AND 2010?

A. Yes. Between 2009 and 2010, the Company instituted methodology changes based on guidance from Commission Staff. In 2009, the Company estimated water loss from repaired main breaks and accounted for those amounts as "authorized unbilled" water rather than lost water. Starting in 2010, based on guidance from Commission Staff, the Company began to account for water lost from repaired main breaks as lost water. This explains much of the large increase in water loss percentages from 2009 to 2010. It also demonstrates that the figures from 2010 are a more appropriate baseline against which to measure the Company's efforts to reduce non revenue water.

Q. DO YOU BELIEVE THE EFFORTS ON THE NON REVENUE WATER REDUCTION PLANS ARE WORKING?

A. Yes, there have been measurable improvements in at least two of these sub-districts: Lake Mohave and Gateway. With time and continued effort and resources applied, the Company expects to see more improvements in all districts.

Q. ARE THERE EXTENUATING CIRCUMSTANCES THAT HAVE MADE WATER LOSS REDUCTION IN THESE DISTRICTS MORE DIFFICULT THAN NORMAL?

A. Yes. These districts have older facilities and pipelines and are often situated in sandy riverbed soils that allow water to percolate down instead of surfacing, which would allow for a more timely detection of leaks. Also, these districts have a higher than normal amount of service lines constructed with a defective polyethylene pipe. Since 2010, the Company has replaced over 1,628 of these polyethylene service lines, which we believe is beginning to show results on water loss reduction. There are still more than 2100 of these service lines still in use.

Q. IS THE COMPANY CONVINCED IT IS TAKING THE RIGHT APPROACH TO REDUCING WATER LOSS?

A. Yes, we believe so. Total water loss in a system is comprised of many different factors and these factors are not the same in all systems. Water loss is not only comprised of leaks in distribution systems. Some systems have older meters which turn slower and do not account for all water used by customers. Some systems require more distribution flushing or have higher "in plant" water use that is not water sold. Other systems have older infrastructure or higher pressures and are prone to more leaks.

Arizona-American has taken a systematic approach to determine what the water loss factors are for each system and has worked to address each system's issues. In Lake Mohave, we had older meters, so we replaced most of the meters in that system and have reduced water loss from 12.9% to 6.85%. In Gateway, we believed we had water theft issues, so we locked off fire hydrants and have seen a significant drop in water loss in a very short time. The Mohave and Bullhead systems are larger and have more factors involved in water loss. While many of the factors mentioned above apply to these two systems, they also have an older distribution system and have many polyethylene service lines that are bursting after only 6 - 10 years of use.

We continue to systematically address all the issues in our systems in a way that fully utilizes our staff and resources and does not cause any undo expenses that would be passed on to our customers.

Q. DOES YOUR SILENCE ON ANY ISSUE RAISED BY ANY PARTY IN SURREBUTTAL TESTIMONY INDICATE YOUR ACCEPTANCE OF THEIR POSITION?

A. No.

Q. DOES THIS CONCLUDE YOUR REJOINDER TESTIMONY?

A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, Chairman
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BRENDA BURNS

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REJOINDER TESTIMONY
OF
MILES H. KIGER
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
AUGUST 9, 2011

REJOINDER TESTIMONY
OF
MILES H. KIGER
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
AUGUST 9, 2011

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EXECUTIVE SUMMARY

Miles H. Kiger testifies as follows:

Declining Usage Adjustment

Arizona-American Water Company ("Arizona-American" or "the Company") is pleased that Staff has embraced its residential declining usage adjustment based on the known and measureable post-test year usage results. The Company is prepared to satisfy reasonable annual compliance reporting obligations related to the declining usage adjustment. Because the declining residential usage trend has been as persistent as it has over the last 5 ½ years the Company expects the declining usage will continue and that an adjustment will be a feature of its future rate filings.

Proposed Rate Increase Request

Arizona-American's rejoinder proposed rate increase request is:

District	Agua Fria Water	Havasu Water	Mohave Water	Total
Proposed Rate Increase Req.	$17,764,746	$744,250	$2,292,753	$20,801,749

Adjusted Operating Income

Arizona-American's rejoinder position for Adjusted Operating Income is:

District	Agua Fria Water	Havasu Water	Mohave Water
Adjusted TY Operating Income	$420,976	$(148,829)	$(425,405)

Adjusted Operating Expense

Arizona-American's rejoinder position for Adjusted Operating Expense is:

District	Agua Fria Water	Havasu Water	Mohave Water
Adjusted TY Operating Expense	$23,670,627	$1,414,896	$5,329,997

Sponsored Rejoinder Schedules

Mr. Kiger sponsors the following rejoinder schedules for each district in the case:

- Schedule C-1 Rejoinder – Arizona-American Adjusted Test Year Income Statement
- Schedule C-2 Rejoinder – Arizona-American Income Stmt Pro Forma Adjustments
- Schedule C-3 Rejoinder – Arizona-American Gross Revenue Conversion Factor

Operating Income Adjustments

Mr. Kiger sponsors the following necessary rejoinder adjustments to operating income in all districts, except where noted:

- Adjustment MHK-1RJ – Correct Test Year Revenues (Mohave)
- Adjustment MHK-2RJ – Chemicals Expense Annualization (Havasu)
- Adjustment MHK-3RJ – Property Taxes

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE NUMBER.

A. My name is Miles H. Kiger and my business address is 2355 W. Pinnacle Peak Rd., Phoenix, AZ 85027. My office phone number is 623-445-2492.

Q. ARE YOU THE SAME MILES H. KIGER THAT SUBMITTED DIRECT AND REBUTTAL TESTIMONY ON BEHALF OF THE COMPANY IN THIS CASE?

A. Yes.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY IN THIS CASE?

A. The purpose of my rejoinder testimony is set forth in my Executive Summary.

Q. HOW IS YOUR REJOINDER TESTIMONY ORGANIZED?

A. First, I list the rejoinder schedules I am sponsoring (C-1 thru C-3) and then I briefly discuss the declining usage adjustment, Staff's embrace of it, and other parties' positions. Next, I describe three of the Company's rejoinder Operating Income Adjustments (MHK-1RJ thru MHK-3RJ) in response to the positions recommended by Staff and RUCO in their August 2, 2011 Surrebuttal testimonies, respectively, regarding those Operating Income Adjustments.

III. REJOINDER SCHEDULES AND EXHIBITS (ALL DISTRICTS)

Q. PLEASE IDENTIFY THE REJOINDER SCHEDULES YOU ARE SPONSORING.

A. I am sponsoring the following rejoinder schedules for each of the three water districts:

- Schedule C-1 Rejoinder – Arizona-American Adjusted Test Year Income Stmt

- Schedule C-2 Rejoinder – Arizona-American Income Stmt Pro Forma Adj.'s
- Schedule C-3 Rejoinder – Arizona-American Gross Revenue Conversion Factor

IV. DECLINING USAGE ADJUSTMENT (ALL DISTRICTS)

Q. WHAT IS THE COMPANY'S RESPONSE TO STAFF'S EMBRACE OF THE DECLINING USAGE ADJUSTMENT?

A. The Company is pleased that Staff has chosen to adopt the declining usage adjustment in light of the known and measureable post-test year usage results.

Q. IS THE COMPANY WILLING TO COMPLY WITH REPORTING REQUIREMENTS REGARDING THE DECLINING USAGE ADJUSTMENT?

A. Absolutely. The Company will satisfy any reasonable compliance reporting obligations related to the declining usage adjustment.

Q. DOES THE COMPANY EXPECT THE DECLINING USAGE ADJUSTMENT TO BE A FEATURE OF FUTURE COMPANY RATE FILINGS?

A. Yes. Based on the Company's experience with the persistence of declining residential usage trends over the last 5 ½ years the Company expects that the declining usage will continue and thus an adjustment will be part of future Company rate filings.

Q. HAS THE COMPANY REVIEWED THE POSITIONS OF OTHER PARTIES REGARDING THE DECLINING USAGE ADJUSTMENT?

A. Yes. Based on the Surrebuttal testimony of Mr. Moore (page 27), it appears RUCO is open to adopting the declining usage adjustment if known and measureable post-test year data supports it. The Company did provide post-test year data to that effect (see Table 1, page 3, of the rebuttal testimony of Company witness Miles H. Kiger), but RUCO did not recognize this in its Surrebuttal filing. The Company also reviewed the Surrebuttal

testimonies of Sun City Grand witness Mr. Arndt, and Verrado Community Association (VCA) witness Mr. Simer, in regards to the declining usage adjustment but does not alter its position on account of any of their claims.

V. PROPOSED RATE INCREASE REQUEST (ALL DISTRICTS)

Q. WHAT IS ARIZONA-AMERICAN'S MOST UPDATED RATE INCREASE REQUEST BY DISTRICT IN THIS PROCEEDING?

A. The table below summarizes Arizona-American's revised rate increase request for the districts in this case:

District	Agua Fria Water	Havasu Water	Mohave Water	Total
Proposed Rate Increase Req.	$17,764,746	$744,250	$2,292,753	$20,801,749

VI. ADJUSTED OPERATING INCOME (ALL DISTRICTS)

Q. WHAT IS ARIZONA-AMERICAN'S UPDATED ADJUSTED OPERATING INCOME BY DISTRICT IN THIS PROCEEDING?

A. The table below summarizes Arizona-American's revised Adjusted Operating Income for the districts in this case:

District	Agua Fria Water	Havasu Water	Mohave Water
Adjusted TY Operating Income	$420,976	$(148,829)	$(425,405)

A OPERATING REVENUES

Q. WHAT ARE ARIZONA-AMERICAN'S TOTAL OPERATING REVENUES BY DISTRICT?

A. Revised adjusted test year operating revenues for each district are:

District	Agua Fria Water	Havasu Water	Mohave Water
Adjusted TY Operating Revenues	$24,091,603	$1,266,066	$4,904,592

Q. HAS THE COMPANY MADE AN ADJUSTMENT TO MOHAVE TEST YEAR REVENUES TO CORRECT A COMPUTATIONAL ERROR DISCOVERED BY RUCO WITNESS MR. MOORE?

A. Yes, the Company has adjusted test year revenues for the Mohave Water district to correct an error, which has the effect of increasing test year revenues by $332. Company Adjustment MHK-1RJ Correct Test Year Revenue (Mohave) shows this calculation.

B OPERATING EXPENSES

Q. WHAT ARE ARIZONA-AMERICAN'S UPDATED REQUESTED TOTAL OPERATING EXPENSES BY DISTRICT?

A. Revised adjusted test year operating expenses for each district are:

District	Agua Fria Water	Havasu Water	Mohave Water
Adjusted TY Operating Expense	$23,670,627	$1,414,896	$5,329,997

FUEL & POWER (AGUA FRIA ONLY)

Q. DOES THE COMPANY CONTINUE TO OPPOSE THE FUEL & POWER EXPENSE ADJUSTMENT FOR THE AGUA FRIA DISTRICT PROPOSED BY STAFF?

A. Yes. Arizona-American continues to oppose Staff's proposed fuel & power expense adjustment for the Agua Fria district. Arizona-American still believes that most recent actual results are more reflective of ongoing fuel & power expenses, rather than the hypothetical estimate provided by Staff.

Q. HAS THE COMPANY PROVIDED ADDITIONAL EVIDENCE SUBSEQUENT TO THE TEST YEAR TO SUPPORT ITS FUEL & POWER EXPENSE?

A. Yes. Contrary to the assertion of Mr. Becker on page 5 of his Surrebuttal testimony, actual power expenses incurred through May 31, 2011 absolutely constitute additional evidence supporting the Company's power expenses. This additional empirical evidence led the Company to revise its fuel & power expense pro forma downward by $260,783 for Agua Fria.

Q. WHY DO YOU BELIEVE THAT STAFF'S POWER EXPENSE ESTIMATION METHODOLOGY IS FLAWED AND ITS RESULTING POWER EXPENSE CALCULATION THEREFORE UNREPRESENTATIVE?

A. Staff's estimation methodology is flawed in at least two ways. Primarily, it is flawed because Staff determines that White Tanks ought to be producing at least 60% of Agua Fria's demands at all times, and then uses this normative goal as the basis for its power expense estimate. The 60% normative goal guides Staff into selecting only those five months from the post-test year period in which White Tanks was actually supplying at least 60% of the district's demands. Generally speaking, the selection of only a five

month window from which to project any annual expenses is a limited basis that would tend to produce unrepresentative projections of an entire year. Specifically, however, the five month window Staff selected is unrepresentative because it does not include any summer months, when not only is district demand highest but electricity pricing highest. This is instructive for two reasons: when district demand is highest (in the summer) White Tanks' proportion of total supply will necessarily be lower, because even though the facility is producing the largest monthly volumes relative to its own annual production, summer demand is significant enough that the facility will not be supplying 60% of the district's monthly demand; and, summer electricity pricing is highest, and non-linearly so (similar to increasing block water rates), such that peak water demands correspond to pricey peak electricity demand (kilowatt) and usage (kilowatt hours) combinations. Choosing only October, November, March, April, and May from which to form an annual projection is generally, and specifically, limited and weak for the reasons mentioned.

Q. WHAT KIND OF RESULTS DOES THE LIMITED SELECTION PRODUCE?

A. The selected five months produce five of the six lowest monthly cost per kgals estimates in the post-test year period, and the average estimate used by Staff is fourth lowest. Staff's hypothetical estimate is downwardly biased.

Q. DOES RUCO AGREE WITH THE COMPANY'S REBUTTAL POSITION ON FUEL & POWER?

A. Yes. RUCO agrees with the Company's rebuttal position on fuel & power.

Q HAVE ANY OTHER PARTIES TAKEN ISSUE WITH THE COMPANY'S REBUTTAL POSITION ON FUEL & POWER?

A. Yes. VCA witness Mr. Kent Simer believes the Company should remove a pro forma adjustment that captures the proposed average bill increase included in APS's most recent rate filing, docketed June 1, 2011.

Q. WHY IS IT REASONABLE TO INCLUDE SUCH AN ADJUSTMENT BASED ON APS'S RECENT RATE FILING?

A. In APS's prior general rate case, APS filed the application in March 2008 and the Commission granted an interim rate request in December 2008, nine months later. Furthermore, the case concluded with a settlement, which also reduced the time between initial filing and a decision. Thus, it is reasonable to presume that rate treatment stemming from the new APS case will be well-sequenced with an ultimate decision in this case.

CHEMICALS (HAVASU ONLY)

Q. IS THE COMPANY REVISING ITS HAVASU CHEMICALS EXPENSE BASED ON ITS DISCUSSIONS WITH STAFF?

A. Yes. The Company has revised its Havasu chemicals expense based on discussions with Staff that led to Staff's surrebuttal adjustment. Company adjustment MHK-2RJ Chemicals Expense Annualization shows this calculation.

PROPERTY TAXES (ALL DISTRICTS)

Q. HAS THE COMPANY MADE CONFORMING ADJUSTMENTS TO ITS PROPERTY TAXES ASSOCIATED WITH PROPOSED REVENUES CONSISTENT WITH ITS REJOINDER POSITIONS?

A. Yes. Company Adjustment MHK-3RJ Property Taxes adjusts prospective district property tax levels associated with proposed revenues.

Q. DOES YOUR SILENCE ON ANY ISSUE RAISED BY ANY PARTY IN SURREBUTTAL TESTIMONY INDICATE YOUR ACCEPTANCE OF THEIR POSITION?

A. No.

Q. DOES THIS CONCLUDE YOUR REJOINDER TESTIMONY?

A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, Chairman
BOB STUMP
PAUL NEWMAN
SANDRA D. KENNEDY
BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF ARIZONA -AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS AGUA FRIA WATER DISTRICT, HAVASU WATER DISTRICT AND MOHAVE WATER DISTRICT	DOCKET NO. W-01303A-10-0448

REJOINDER TESTIMONY
OF
SANDRA L. MURREY
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
DATED AUGUST 9, 2011

REJOINDER TESTIMONY
OF
SANDRA L. MURREY
ON BEHALF OF
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EXECUTIVE SUMMARY

Sandra L. Murrey responds to Staff and RUCO surrebuttal testimony concerning certain rate base issues.

Rate Base – Cash Working Capital

All Districts – The Company accepts Staff's recommendation of 18.16 lag days for the Management Fees category.

Agua Fria Water District

The Company adjusts $100,000 for a typo on a mutually agreed upon adjustment.

The Company opposes RUCO's surrebuttal adjustment of fifty percent disallowance of deferred debits associated with the RUCO's proposed fifty percent disallowance of the White Tanks Plant.

Mohave Water District

The Company adjusts the project cost for Lake Mohave Highland Storage Tank.

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Sandra L. Murrey. My business address is 2355 W. Pinnacle Peak Road, Suite 300, Phoenix, AZ 85027.

Q. ARE YOU THE SAME SANDRA L. MURREY WHO PREVIOUSLY SUBMITTED DIRECT AND REBUTTAL TESTIMONY IN THIS DOCKET?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY?

A. Please see my Executive Summary.

II RATE BASE ISSUES

Q. STAFF RECOMMENDS THE USE OF 18.16 LAG DAYS FOR THE MANAGEMENT FEES CATEGORY IN THE CALCULATION OF CASH WORKING CAPITAL. DOES THE COMPANY AGREE?

A. Yes, the Company has reviewed Staff's proxy and is in agreement with using 18.16 lag days for Management Fees for all districts in this case. This revision is reflected on Schedule B-6 for each of the districts.

Q. THE COMPANY NOTICED THAT A RATE BASE REBUTTAL ADJUSTMENT CONTAINED A TYPO. IS THIS BEING ADDRESSING IN REJOINDER?

A. Yes. In the Agua Fria Water District, Staff and RUCO agreed to adjust ($592,423) for the White Tank Foothills Phase 1, Parcels 3 and 9 Improvements. The Company's Rebuttal adjustment, ADJ SLM-4R, was listed at ($492,423). Please see rejoinder adjustment ADJ SLM-2RJ for ($100,000) which corrects this typographical error.

Q. IN HIS SURREBUTTAL TESTIMONY, RUCO WITNESS RODNEY MOORE NOW PROPOSES A FIFTY PERCENT DISALLOWANCE OF THE DEFERRED DEBITS ASSOCIATED WITH RUCO'S PROPOSED FIFTY PERCENT DISALLOWANCE OF THE WHITE TANKS PLANT. DOES THE COMPANY AGREE?

A. No, the Company does not agree with either of these adjustments. Please refer to the testimonies of Mr. Townsley, Mr. Gross and Mr. Crook for the operational and engineering aspects of the White Tanks Plant. Also, please see the testimony of Mr. Barber as to the financial impact of these proposed adjustments.

Q. THE COMPANY'S ORIGINAL FILING LISTED THE PROJECTED COSTS FOR THE LAKE MOHAVE HIGHLANDS STORAGE TANK AT $660,172. ARE MORE CURRENT AMOUNTS AVAILABLE?

A. Yes. The updated project cost is $574,723. Please see rate base adjustment ADJ SLM – 2RJ on Schedule B-2 Rejoinder which decreases plant by $85,449. The annual depreciation expense is adjusted accordingly by income statement adjustment SLM-3RJ on Schedule C-2 Rejoinder.

Q. DOES YOUR SILENCE ON ANY ISSUE RAISED BY ANY PARTY IN SURREBUTTAL TESTIMONY INDICATE YOUR ACCEPTANCE OF THEIR POSITION?

A. No.

Q. DOES THIS CONCLUDE YOUR REJOINDER TESTIMONY?

A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

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REJOINDER TESTIMONY
OF
JOHN F. GUASTELLA
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
AUGUST 9, 2011

REJOINDER TESTIMONY
OF
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EXECUTIVE SUMMARY

Mr. Guastella provides rejoinder to the surrebuttal testimony of Mr. Arndt and Mr. Simer relating to the Company's proposed depreciation rates.

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. John F. Guastella, Guastella Associates, LLC, 6 Beacon Street, Suite 200, Boston, MA 02108.

Q. HAVE YOU PREVIOUSLY PROVIDED DIRECT AND REBUTTAL TESTIMONY IN THIS PROCEEDING REGARDING THE COMPANY'S PROPOSED DEPRECIATION RATES AND EXPENSES?

A. Yes.

Q. DID YOU ALSO SUBMIT YOUR STATEMENT OF QUALIFICATIONS AND EXPERIENCE AS EXHIBIT JFG-1, A COMPANY-WIDE DEPRECIATION STUDY AS EXHIBIT JFG-2 AND SPECIFIC SCHEDULES IN SUPPORT OF THE COMPANY'S PROPOSED DEPRECIATION WITH RESPECT TO AQUA FRIA, HAVASU AND MOHAVE, AS EXHIBIT JFG-3?

A. Yes.

Q. HAVE YOU REVIEWED THE SURREBUTTAL TESTIMONY AND EXHIBITS SUBMITTED IN THIS CASE BY MR. MICHAEL L. ARNDT ON BEHALF OF THE SUN CITY GRAND COMMUNITY ASSOCIATION ON AUGUST 2, 2011 AND MR. KENT SIMER ON BEHALF OF VERRADO COMMUNITY ASSOCIATION, INC. ON AUGUST 2, 2011?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My rebuttal testimony addresses the testimonies of Messrs. Arndt and Simer with respect to their statements and recommendations as to depreciation.

II RESPONSE TO MR. ARNDT

Q. ON PAGE 51 OF HIS TESTIMONY, MR. ARNDT IS ASKED TO DESCRIBE THE DEPRECIATION EXPENSE ISSUE, AND HE RESPONDS ON PAGE 52. DO YOU AGREE WITH HIS RESPONSE?

A. No. Mr. Arndt's response simply refers to percentage changes in the existing and proposed composite depreciation rate and expense. The real issue is whether the depreciation rates and expense represent the best estimate of the recovery of the original cost of the depreciable assets, and take into account the most reasonable estimate of net salvage values, including cost of removal in order to best maintain intergenerational equity.

Q. HOW DOES MR. ARNDT RESPOND TO YOUR REBUTTAL TESTIMONY?

A. He doesn't. On page 53, lines 3 and 4, Mr. Arndt repeats his direct testimony that my negative net salvage values were not supported, which I rebutted on page 9 of my rebuttal testimony. On pages 53 and 54, Mr. Arndt then repeats Mr. Becker's direct testimony, which I rebutted on pages 3 to 9 of my rebuttal testimony. Mr. Arndt does not address my rebuttal testimony.

Q. WHAT IS THE RELEVANCE OF MR. ARNDT'S REFERENCE TO AND COMPARISON OF THE 2.33% COMPOSITE DEPRECIATION RATE IN A SETTLEMENT DECISION IN THE NEW JERSEY'S BOARD OF PUBLIC UTILITIES ("BPU") DOCKET NO. WR08010020 IN CONNECTION WITH NEW JERSEY AMERICAN WATER COMPANY AND THE 3.36% COMPOSITE RATE FOR THE AGUA FRIA WATER DISTRICT?

A. None. First, different composite depreciation rates are a function of variances in average service lives, net salvage values and the relative amounts of original costs in the various

plant accounts. Most of these components will likely differ; and even if the depreciation rates were exactly the same for each account, the different dollar amounts in each account would produce a difference in the composite depreciation rate. Second, the averaging method indicated in New Jersey for that particular settlement -- as opposed to a stated BPU policy was, as Mr. Arndt acknowledges, tried by Mr. Becker in this case and rejected because it produced incomplete and unreliable results.

Q. WHAT IS YOUR OVERALL CONCLUSION REGARDING MR. ARNDT'S SURREBUTTAL TESTIMONY?

A. As in his direct testimony, Mr. Arndt's surrebuttal testimony does not adequately address the issue. He provides no substantive discussion as to the principles and methodology stated in my study. He does not provide any analysis of the cost of removal schedules or sample calculations. He did not discuss my specific rebuttal of his direct testimony, or my rebuttal of Mr. Becker's direct testimony (to which Mr. Becker did not respond). Moreover, his recommendation not to change the existing depreciation rates is, in effect, a presumption that there is absolutely no cost of removal related to any retired assets -- an impossible conclusion.

III RESPONSE TO MR. SIMER

Q. DO YOU HAVE ANY COMMENTS WITH RESPECT TO MR. SIMER'S SURREBUTTAL TESTIMONY REGARDING DEPRECIATION RATES?

A. Mr. Simer does not address the issue of intergenerational equity as to the establishment of appropriate depreciation rates. He doesn't provide any discussion or analysis with respect to my depreciation study. A decision regarding individual revenue requirements, such as depreciation expense, should be made on the merits of issue, aside from any broader opinions as to overall rate impact. Mr. Simer's recommendation not to accept the

Company's proposed depreciation rates also reflects the unreasonable presumption that there is no cost of removal for any retired assets. Also, contrary to Mr. Simer's recommendations, the establishment of appropriate depreciation rates is best accomplished in the context of the current rate filings in order to better establish intergenerational equity.

Q. DOES YOUR SILENCE ON ANY ISSUE RAISED BY ANY PARTY IN SURREBUTTAL TESTIMONY INDICATE YOUR ACCEPTANCE OF THEIR POSITION?

A. No.

Q. DOES THIS CONCLUDE YOUR REJOINDER TESTIMONY IN THIS CASE?

A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, Chairman
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BRENDA. BURNS

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS AGUA FRIA WATER, HAVASU WATER AND MOHAVE WATER DISTRICTS	DOCKET NO. W-01303A-10-0448

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OF
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EXECUTIVE SUMMARY

Dr. Villadsen rebuts the cost of capital surrebuttal testimony provided by Staff witness, Juan Manrique, RUCO witness, William Rigsby, and Sun City Grand Community Association witness, Michael Arndt.

Dr. Villadsen also provides an update of previously submitted tables summarizing past decisions by the Arizona Corporation Commission.

I. INTRODUCTION AND SUMMARY

Q. ARE YOU THE SAME BENTE VILLADSEN WHO FILED DIRECT TESTIMONY IN NOVEMBER 2010 AND SURREBUTTAL TESTIMONY IN JULY 2011 ON BEHALF OF ARIZONA-AMERICAN WATER COMPANY IN NOVEMBER 2010?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. I have been asked by Arizona-American Water Company (Arizona-American Water or the Company) to review and comment on the surrebuttal testimonies filed by Mr. Juan C. Manrique on behalf of the Utilities Division of the Arizona Corporation Commission ("Manrique Surrebuttal"), Mr. Michael L. Arndt on behalf of Sun City Grand Community Association ("Arndt Surrebuttal") and Mr. William A. Rigsby on behalf of Residential Utility Consumer Office ("Rigsby Surrebuttal").

Q. HAVE YOU CHANGED YOUR RECOMMENDED ROE?

A. No.

Q. WHAT DO YOU ADDRESS IN YOUR REJOINDER?

A. First, I discuss why previously allowed RORs are appropriate benchmarks for Arizona-American Water's current ROR. Second, I discuss analysts' growth forecasts and include a comparison of Value Line's forecast and realized income for gas utilities. Third, I show that if an ROE of 9.5% is a reasonable return for the water utility industry, then an ROE of 11% is appropriate for Arizona-American Water at RUCO's proposed capital structure. Fourth, I explain why the geometric average measures past performance and is not an appropriate measure for the expected performance. Fifth, I provide references that rebut the Rigsby Surrebuttal that his non-standard DCF methodology adjusts for the effect of non-regulated activities.

II. RESPONSES TO SPECIC ISSUES IN SURREBUTTAL TESTIMONIES

A. COMPARING ROR

Q. THE MANRIQUE SURREBUTTAL ARGUES THAT RORS ALLOWED IN PAST DECISIONS ARE NOT ACCURATE INDICATORS OF AN APPROPRIATE ROR FOR ARIZONA-AMERICAN.[1] HOW DO YOU RESPOND?

A. I disagree. Investors are concerned about being compensated adequately for the risks they bear. The total return a utility is allowed to earn is split between equity and debt holders as is the risk of the investment. However, the leverage magnifies the risk equity investors' bear as explained in the Villadsen Direct.[2] Therefore, the total risk is reflected in the overall cost of capital. In a regulatory setting, the overall cost of capital is reflected in the allowed ROR and investors in a regulated entity would naturally look to the allowed ROR to gauge the magnitude of the return they can expect. Similarly, customers, whose rates include the allowed ROR, logically would care about the dollar amount being charged rather than the percentage return on equity. Therefore, I believe the historical ROR is a reasonable benchmark for Arizona-American Water's ROR.

Q. THE MANRIQUE SURREBUTTAL STATES THAT "ROR IS NOT AN APPROPRIATE METRIC OF COMPARISON OVER TIME . . ."[3] WHAT IS YOUR VIEW?

A. I agree that it may be difficult to compare rates of return over time. Therefore, and to ensure all recent decisions are reflected in my analysis, I added four additional decisions to the analysis. Table BV-RJ1 attached to this rejoinder testimony updates Table 2 and Table 3 of the Villadsen Rebuttal. In addition, I calculated the ROR for the 2010-2011 period to check that the analysis is not biased by the timing of the decisions. As can be seen from Table BV-RJ2, the ROR for all decisions remain at 8.1% and is slightly higher at 8.2% for 2010-2011 decisions. Even with the inclusion of additional decisions and a distinct look to recent decisions, the Commission's recent water decisions are consistent

[1] Manrique Surrebuttal p. 3-4.
[2] See the Villadsen Direct pp. 14-18 for an illustrative example.
[3] Manrique Surrebuttal p. 3.

with an ROR of approximately 8.1% - 8.2% and an ROE of 11.9% - 12.1% at the Company's proposed capital structure.[4] In other words, looking only to recent decisions does not change the magnitude of the comparable ROR.

Q. DO YOU HAVE ANY OTHER COMMENTS ON THE COMMENT THAT THE ROR IS "PUSHED DOWNWARD BY A HIGHER DEBT RATIO"?

A. Yes. Allowing a lower overall cost of capital, ROR, for companies with a higher debt ratio assumes that investors do not require compensation for additional leverage. Both equity and debt investors consider leverage and the higher the leverage the more risk equity investors face. They require compensation for that risk in the form of a higher return on equity. As discussed at length in the Villadsen Direct, the cost of equity increases as the percentage of debt increases. Therefore, the overall cost of capital, the dollar amount of capital costs, does not decline as more debt is used, but the allocation between debt and equity holders does change.

The fact that leverage matters is recognized by, for example, the Florida Public Service Commission ("FL PSC"), which in its recent, July 2011 decision on water utilities relied on the following formula to determine the ROE for the utilities:[5]

$$ROE = 7.13\% + 1.610 / \text{Equity Ratio} \quad (1)$$

The FL PSC put the ROE at 8.74% at 100% equity and imposed an upper bound of 11.16% for utilities with 40% equity. Applying the FL PSC formula to Arizona-American Water at 40% equity (or at 37.46% equity) would give rise to a return on equity of 11.16%.

[4] The ROR figure for all decisions is not visibly different from the figure shown in Table 2 of the Villadsen Rebuttal although the implied ROE is higher.

[5] Florida Public Service Commission, Docket No. 110006-WS, Order No. PSC-11-0287-PAA-WS, ("Florida Order") p. 2. The decision is attached to this rejoinder as Attachment A.

Notably, the Florida PSC recognizes the link between financial risk and the cost of equity and notes that a basic assumption is that "[t]he cost of equity is an exponential function of the equity ratio but a linear function of the debt to equity ratio over the relevant range."[6] Put differently, the cost of equity increases at an ever increasing rate as the equity percentage ratio declines, while the cost of equity is proportional to the debt to equity ratio.

B. ANALYSTS' GROWTH FORECASTS

Q. THE MANRIQUE SURREBUTTAL ARGUES THAT "OUTSIDE OF ECONOMIC BOOM YEARS, ANALYSTS' ESTIMATES ARE OVERLY-OPTIMISTIC."[7] DO YOU HAVE ANY COMMENTS?

A. Yes. It appears that the conclusions from research on this topic differ with McKinsey agreeing with the Manrique Surrebuttal and the article by Hovakimina and Saenyasire disagreeing.[8] However, utilities constitute only 3.4% of the S&P 500 index, which is the focus of the McKinsey study. The S&P 500 includes a large share of financials (15.1%) and information technology (17.8%) companies,[9] whose earnings have been very volatile in recent years. It is not clear that they provide a good insight into the reliability of growth forecasts for utilities, which is the real issue at hand. To gain insight into this issue, I compared Earnings per Share and Number of Shares Outstanding forecast from Value Line with realized figures for the gas LDC companies used in the Villadsen Direct. I did not undertake this study for the water utilities because (1) I have five-year forecasts for only three companies back in time and (2) I did not rely on the results from the DCF model for the water utilities as the industry. Looking at analysts' forecast from 2005-06 for 2008, 2009, and 2010, which are **not** boom years, I found **no evidence** that Value Line's earnings forecast for the gas distribution industry is "overly-optimistic." Instead, there forecasts that were optimistic and forecasts that were pessimistic, which more pessimistic than optimistic forecasts. The results are reported in Table BV-RJ3 attached

[6] Florida Order p. 3.
[7] Manrique Surrebuttal p. 6.
[8] A. Hovakimian and E. Saenyasiri, "Conflicts of Interest and Analyst Behavior: Evidence from Recent Changes in Regulation," *Financial Analysts Journal*, vol. 66, 2010. Cited in the Villadsen Rebuttal.
[9] Standard & Poor's, "S&P 500 Fact Sheet." Attached to this rejoinder as Attachment B.

to this rejoinder,[10] which finds 13 optimistic forecasts, 16 pessimistic forecasts and one exact forecast on gas LDCs income approximately 4 years out. Thus, the Value Line forecasts for gas LDCs do not appear to have been inflated in recent years.[11]

C. VALUE LINE'S 9.5% EXPECTED ROE FOR THE WATER INDUSTRY

Q. THE RIGSBY SURREBUTTAL USES A RECENT VALUE LINE SHEET TO ARGUE THAT AN ROE OF 9.5% IS "ATTRACTIVE TO INVESTORS."[12] HOW DO YOU RESPOND?

A. As noted by the Florida PSC and discussed at length in the Villadsen Direct, a company's cost of equity and its capital structure are linked. It is therefore vital to not only look at the 9.5% ROE that Value Line forecasts for the water utility industry, but to also look to the forecasted equity ratio of 48%.[13] Customers of Arizona-American Water are concerned about the cost of water services, in dollar terms, and investors are concerned about adequate compensation for the risk they take on. Therefore, it is important to understand how the 9.5% cited in the Rigsby Surrebuttal relates to the cost of capital that customers pay and investors earn on a rate base that is financed by varying proportions of debt and equity. In Table 1 below, I calculate the total return on a rate base of $148.9 million financed by 48% equity and 52% debt, which is Value Line's forecasted capital structure. I assume for illustrative purposes that the cost of debt is 4.21% and that the cost of equity is 9.5%. The total return (before tax gross up) then becomes approximately $10.05 million.

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[10] Table BV-RJ3 does not consider NiSource because I do not readily have access to historic forecast.

[11] I note that the growth forecasts relied upon were made during the so-called boom years, while the realizations were around the financial crisis.

[12] Rigsby Surrebuttal p. 7-8.

[13] *Value Line Investment Survey*, Water Utility Industry, July 22, 2011 (Attachment A to the Rigsby Surrebuttal).

	Value Line	Rigsby Capital Structure
Rate Base	$148,900	$148,900
ROE	9.5%	n/a
% Equity	48.0%	37.5%
Cost of Debt	4.21%	4.21%
% Debt	52.0%	62.5%
Tax Rate	38.6%	38.6%
Cost of Equity	$6,790	$6,130
Cost of Debt	$3,260	$3,920
Total Return	$10,050	$10,050
Implied ROE	n/a	10.99%

Table 1: Comparison of Value Line's and the Rigsby Rebuttal

In column 2, I set the total return (or the capital costs) equal to the figure the Value Line number proposed by the Rigsby Rebuttal gives rise to, $10.05 million, and determine the ROE that ensures that customers pay no more and no less than in the Value Line example. The ROE that is consistent with Value Line's suggested $10.05 million return on a rate base of $148.9 million is 10.99%. The example shows that if an ROE of 9.5% is reasonable for a company with 48% equity, then an ROE of 10.99% is reasonable for a company with 37.46% ROE.[14]

D. Explaining the Geometric Average

Q. PLEASE EXPLAIN THE ARITHMETIC AND GEOMETRIC AVERAGE OF RETURN.

A. The arithmetic mean of stock market returns (e.g., the S&P 500) over a historical time period, e.g., 1926 to 2010, is simply the average return experienced during the period. The geometric mean is the return that if compounded annually over 84 years would result in the same increase in the S&P 500 as indicated by the annual return.

[14] Rigsby Surrebuttal p. 3 recommends an equity ratio of 37.46% for Arizona-American Water.

Q. HOW WOULD YOU USE THE ARITHMETIC AND GEOMETRIC MEAN OF STOCK RETURNS?

A. If the purpose is to evaluate the past performance of a stock, the geometric mean is the most appropriate. In other words, the geometric mean tells us how a specific stock or portfolio performed in the past, but a simple example, which I adopt from Morningstar 2009 Valuation Yearbook, explains why it fails to provide a reasonable expected return.

Figure 1 below shows a simple probability tree. Suppose that, at time 0, we invest $100 in the stock market. Also assume that there are only two possible and equally likely outcomes for the market return: either the stock increases by 20% or it declines by 10%, so the resulting stock value is $120 or $90. The arithmetic mean growth rate is 5% (=50%×20% + 50%×(-10%)) whereas the geometric growth rate is $[(1+20\%) \times (1-10\%)]^{1/2} = 3.92\%$.

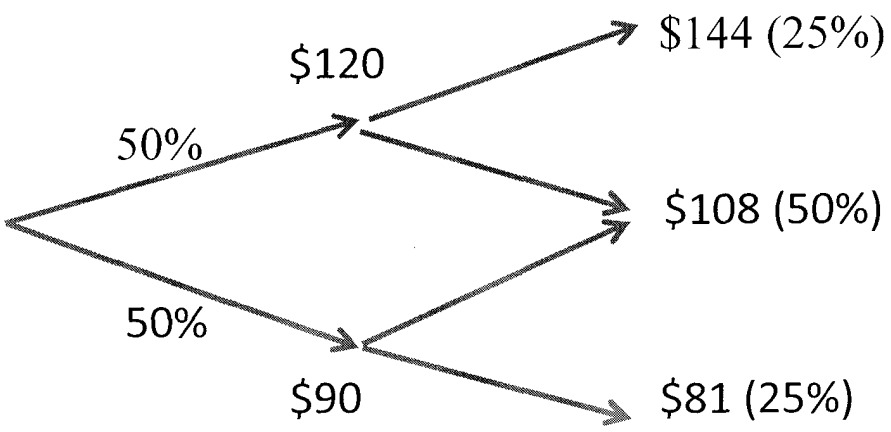

Figure 1: Probability Tree for Arithmetic and Geometric Averages

If the value after year one was $120, the total value will either increase to $144 (another 20% increase) or decrease to $108 in the second year. If the value after year one was $90, the total value will increase to $108 or decrease to $81 in the second year. Figure 1 also shows the probability or likelihood that these scenarios will occur.

To calculate the arithmetic mean after two years, I simply determine the expected value of the investment:

$$\text{Expected Value of Investment} = 25\% \times \$144 + 50\% \times \$105 + 25\% \times \$81 = \$110.25$$

Compare that value to the value I obtain if I assume the investment grows at the arithmetic growth rate for two years: $\$100 \times (1+5\%)^2 = \$110.25$

I also compare the figure to the value I obtain if the investment grows a the geometric mean for two years: $\$100 \times (1+3.92\%)^2 = \$108$

Put simply, if I rely on the arithmetic mean I obtain the correct expected value after two years. This is why I recommend using the arithmetic mean for the purpose of determining the market risk premium.

Q. DOES STAFF CURRENTLY RELY ON THE HISTORIC GEOMETRIC AVERAGE TO CALCULATE THE MRP?

No. The current staff testimony does not calculate a geometric average over the historically experienced returns in the stock market.[15] The testimony cited in the Rigsby Surrebuttal was put forth by Mr. Parcell, an independent consultant. Staff currently uses two market risk premiums: (1) the arithmetic average over historic market risk premia and (2) a current MRP that is determined so that the market risk premium that is consistent with current data on expected market returns using Value Line data. In other words, the staff testimony attempts to capture the expected market risk premium and not to obtain and estimate of past performance. Thus, staff's concept is consistent with the notion that investors care about expected returns.

[15] Neither did the Testimony of Juan A. Manrique in W-013003A-09-0343.

E. THE RIGSBY DIRECT'S RELIANCE ON NON-STANDARD DCF

Q. PLEASE COMMENT ON THE RIGSBY SURREBUTTAL THAT THE SAMPLE COMPANIES ARE NOT "PURE-PLAY" AND HIS NON-STANDARD DCF METHOD HELPS ELIMINATE THE IMPACT OF UNREGULATED SEGMENTS.

A. A pure-play company is an investment term referring to companies with operations only in one line of business. While many companies have several business segments, it is difficult to find an industry that is more concentrated in the target industry than the water companies included by Mr. Rigsby. As shown in the Villadsen Direct, Table No. BV-3, the average percent regulated activities for American States Water, Aqua America, California Water, and SJW Water is 95.8%, which is very close to being pure-play. Similarly, the gas LDCs included by Mr. Rigsby average over 88% regulated activities and my subsample is a little above 89%, so this sample is also close to being a pure-play in the gas distribution industry.[16] Therefore, there is no need to eliminate the impact of unregulated segments for the water sample and very little if any reason for the gas LDC sample.

Q. DO YOU HAVE ANY OTHER COMMENTS ON THE RIGSBY SURREBUTTAL'S SECTION ON WHY THE RIGSBY DIRECT RELIES ON A NON-STANDARD DCF?

A. Yes. The Rigsby Surrebuttal cites Willard T. Carleton and Roger A. Morin in this section of the surrebuttal. Dr. Morin does not rely on the non-standard DCF methodology relied upon by Mr. Rigsby. For example, Dr. Morin's text, "New Regulatory Finance,"[17] shows two versions of the sustainable growth model[18]

$$g = b \times r \quad \textbf{and} \quad g = b \times r + s\,v \qquad (2)$$

[16] See Tables No. BV-3 and BV-14, which summarizes the percentages of regulated assets in the samples.
[17] Roger A. Morin, "*New Regulatory Finance*," Public Utilities Report 2006, ("Morin (2006)"), p. 303-307. Attached to this rejoinder as Attachment C.
[18] Morin (2006) p. 303 and 306, respectively.

where g equals the growth rate, b is the retention ratio, r is the expected future return on book equity, s is the expected growth in shares and v is the profitability of equity investments. Further, Dr. Morin's text has an example of implementing the sustainable growth model that relies on the standard formula.[19] While I have been unable to find recent publications of Dr. Carleton that demonstrate his position, he published a study showing that analysts' forecast dominate historical trends for the purpose of implementing the DCF. In this study, Dr. Carleton clearly relied on the standard DCF formula.[20] Thus, not only did Dr. Carleton not rely on a non-standard DCF model, but he favored analysts growth forecasts over historical growth rates.

Q. DOES THE FACT THAT YOU DO NOT COMMENT ON SOME ASPECTS OF THE SUBMITTED TESTIMONIES MEAN THAT YOU AGREE?

A. No, it does not.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

[19] Morin (2006) p. 305.

[20] James H. Vander Weide and Willard T. Carleton, "Investor Growth Expectations: Analysts vs. History," *Journal of Portfolio Management*, Spring 1988, equation (2). The article is attached to this rejoinder as Attachment D.

SUPPORTING TABLES AND WORK PAPERS

Company	Decision [1]	Date [2]	Common Equity [3]	Allowed Rate of Return on Equity [4]
Bella Vista Water Company	65350	11/1/2002	68.1%	9.1%
Clearwater Utilities	66782	2/13/2004	100.0%	9.1%
Arizona Water Company	66849	3/19/2004	66.2%	9.2%
AZ-American Water Co. (Citizens)	67093	6/30/2004	39.9%	9.0%
Rio Rico Utilities	67279	10/5/2004	100.0%	8.7%
Las Quintas Serenas Water Co.	67455	1/4/2005	100.0%	8.1%
Forest Highlands	67983	7/18/2005	100.0%	8.1%
Pineview Water Co.	67989	7/18/2005	51.0%	8.9%
Chaparral City Water	68176	9/30/2005	58.8%	9.3%
Arizona Water Company	68302	11/14/2005	73.4%	9.1%
AZ-American Water Co. (PV)	68858	7/28/2006	36.7%	10.4%
Black Mountain Sewer	69164	12/5/2006	100.0%	9.6%
Far West Water & Sewer Co.	69335	2/20/2007	56.0%	9.3%
Goodman Water Co.	69404	4/16/2007	100.0%	9.3%
AZ-American Water Co. (Mohave)	69440	5/1/2007	40.0%	10.7%
Gold Canyon Sewer Company	69664	6/28/2007	100.0%	9.2%
Utility Source	70140	1/23/2008	100.0%	8.9%
Cordes Lakes Water Company	70710	2/27/2008	100.0%	10.0%
AZ -American (Sun City Wastewater)	70209	3/20/2008	38.5%	10.6%
AZ-American (Anthem)	70372	6/13/2008	39.2%	8.8%
Arizona Water Company	71845	8/24/2010	45.9%	9.5%
Global Water	71878	9/14/2010	55.5%	9.0%
Rio Rico Utilities	72059	1/6/2011	80.0%	9.5%
Coronado Utilities	*71956*	*5/5/2010*	*36.7%*	*9.0%*
Litchfield Park Service Company	*72026*	*12/10/2010*	*82.4%*	*8.0%*
Sahuarita Water Company	*72177*	*2/11/2011*	*82.2%*	*10.3%*
Bella Vista Water Company	*72251*	*4/7/2011*	*77.4%*	*9.5%*
Average			71.4%	9.3%
Average *			64.1%	9.2%

Companies in italic are in addition to those listed in the Villadsen Rebuttal.
* Excluding Companies with 100% of common equity and Arizona-American Water Co.

Table BV-RJ1: Allowed Return on Equity and Common Equity Percentages in Recent AZ Water Decisions

		Implied ROE at AZ-Am Equity %		
Company	Implied RoR	Villadsen / Company	Manrique / Staff	Rigsby / RUCO
Bella Vista Water Company	8.1%	12.0%	14.3%	15.3%
Clearwater Utilities	9.1%	15.9%	18.7%	20.0%
Arizona Water Company	9.0%	13.5%	16.0%	17.0%
AZ-American Water Co. (Citizens)	6.5%	7.6%	9.4%	10.0%
Rio Rico Utilities	8.7%	15.0%	17.7%	18.9%
Las Quintas Serenas Water Co.	8.1%	13.7%	16.2%	17.3%
Forest Highlands	8.1%	13.7%	16.2%	17.3%
Pineview Water Co.	7.2%	9.4%	11.4%	12.2%
Chaparral City Water	7.6%	10.7%	12.8%	13.7%
Arizona Water Company	8.9%	13.6%	16.1%	17.2%
AZ-American Water Co. (PV)	7.2%	8.9%	10.7%	11.5%
Black Mountain Sewer	9.6%	17.0%	19.9%	21.3%
Far West Water & Sewer Co.	7.8%	10.8%	12.9%	13.8%
Goodman Water Co.	9.3%	16.3%	19.2%	20.5%
AZ-American Water Co. (Mohave)	7.7%	9.9%	11.9%	12.7%
Gold Canyon Sewer Company	9.2%	16.1%	18.9%	20.2%
Utility Source	8.9%	15.4%	18.2%	19.4%
Cordes Lakes Water Company	10.0%	17.9%	20.9%	22.4%
AZ -American (Sun City Wastewater)	7.5%	9.4%	11.3%	12.1%
AZ-American (Anthem)	6.7%	7.9%	9.6%	10.3%
Arizona Water Company	7.7%	10.0%	12.0%	12.8%
Global Water	7.9%	10.7%	12.8%	13.7%
Rio Rico Utilities	8.7%	14.1%	16.7%	17.8%
Coronado Utilities	*7.2%*	*8.4%*	*10.3%*	*11.0%*
Litchfield Park Service Company	*7.7%*	*11.9%*	*14.2%*	*15.1%*
Sahuarita Water Company	*9.2%*	*15.5%*	*18.3%*	*19.5%*
Bella Vista Water Company	*8.8%*	*13.9%*	*16.5%*	*17.6%*
Average	8.2%	12.6%	14.9%	16.0%
Average without AZ-Am	8.5%	13.4%	15.9%	17.0%
Average without AZ-Am and Companies with 100% Equity	8.1%	11.9%	14.2%	15.1%
2010-11 Average	8.2%	12.1%	14.4%	15.4%

Companies in italic are in addition to those listed in the Villadsen Rebuttal.

Table BV-RJ2: Implied RoR and ROE

	Date of Forecast	Forecast for	ATG	ATO	LG	NJR*	GAS	NWG	PNY	SJI**	SWX	WGL
EPS												
Forecast	Mar-05	2008	$ 2.63	$ 2.15	$ 2.15	$ 2.00	$ 2.52	$ 2.42	$ 1.50	$ 1.90	$ 2.20	$ 2.42
Realized		2008	$ 2.71	$ 2.00	$ 2.64	$ 2.70	$ 2.63	$ 2.57	$ 1.49	$ 2.27	$ 1.39	$ 2.44
Forecast	Sep-05	2009	$ 2.80	$ 2.35	$ 2.25	$ 2.17	$ 2.70	$ 2.65	$ 1.75	$ 2.10	$ 2.40	$ 2.50
Realized		2009	$ 2.88	$ 1.97	$ 2.92	$ 2.40	$ 2.97	$ 2.83	$ 1.67	$ 2.38	$ 1.94	$ 2.53
Forecast	Mar-06	2010	$ 2.90	$ 2.50	$ 2.80	$ 2.20	$ 2.80	$ 2.85	$ 1.75	$ 2.30	$ 2.30	$ 2.40
Realized		2010	$ 3.00	$ 2.16	$ 2.43	$ 2.46	$ 3.03	$ 2.73	$ 1.55	$ 2.70	$ 2.27	$ 2.27
Shares												
Forecast	Mar-05	2008	77.7	93.3	21.5	38.5	44.4	28.3	74.0	29.5	39.0	48.7
Realized		2008	76.9	90.8	22.0	42.1	45.1	26.5	73.3	29.7	44.2	49.9
Forecast	Sep-05	2009	78.0	97.0	21.5	37.5	44.5	29.0	73.0	30.0	41.5	48.7
Realized		2009	77.5	92.6	22.2	41.6	45.3	26.5	73.3	29.8	45.1	50.1
Forecast	Mar-06	2010	78.0	100.0	24.0	39.0	44.6	28.0	75.0	31.0	45.0	48.8
Realized		2010	78.0	90.2	22.3	41.4	45.6	26.7	72.3	29.9	45.6	50.5
Earnings												
Forecast	Mar-05	2008	$ 204.5	$ 200.7	$ 46.2	$ 77.0	$ 111.7	$ 68.5	$ 111.0	$ 56.1	$ 85.8	$ 117.7
Realized		2008	$ 208.4	$ 181.6	$ 58.1	$ 113.6	$ 118.7	$ 68.1	$ 109.2	$ 67.5	$ 61.4	$ 121.8
Forecast minus Realized			$ (3.9)	$ 19.0	$ (11.8)	$ (36.6)	$ (7.0)	$ 0.4	$ 1.8	$ (11.4)	$ 24.4	$ (4.1)
Forecast	Sep-05	2009	$ 218.4	$ 228.0	$ 48.4	$ 81.3	$ 120.2	$ 76.9	$ 127.8	$ 63.0	$ 99.6	$ 121.8
Realized		2009	$ 223.3	$ 182.3	$ 64.7	$ 99.8	$ 134.4	$ 75.1	$ 122.4	$ 70.9	$ 87.5	$ 126.9
Forecast minus Realized			$ (4.9)	$ 45.6	$ (16.4)	$ (18.6)	$ (14.2)	$ 1.8	$ 5.4	$ (7.9)	$ 12.1	$ (5.1)
Forecast	Mar-06	2010	$ 226.2	$ 250.0	$ 67.2	$ 85.8	$ 124.9	$ 79.8	$ 131.3	$ 71.3	$ 103.5	$ 117.1
Realized		2010	$ 234.0	$ 194.7	$ 54.2	$ 101.7	$ 138.0	$ 72.8	$ 112.0	$ 80.6	$ 103.5	$ 114.7
Forecast minus Realized			$ (7.8)	$ 55.3	$ 13.0	$ (15.9)	$ (13.1)	$ 7.0	$ 19.2	$ (9.3)	$ (0.0)	$ 2.4

Sources and Notes:

* Adjusted for NJR's three for two stock split in January 2008

** Adjusted for SJI's two for one stock split in March 2005

[1], [7]: Value Line Sheets for natural gas utility, March 18, 2005.
The forecast is calculated as: Forecast 2006 + 2/3 x (Forecast 08-10 - Forecast 2006)

[2], [4], [6], [8], [10], [12]: Value Line Investment Survey, June 10, 2011

[3], [9]: Value Line Sheets for natural gas utilities, September 16, 2005

[5], [11]: Value Line sheets for natural gas utilities, March 17, 2006

[13]: [1] x [7]

[14]: [2] x [8]

[15]: [13] - [14]

[16]: [3] x [9]

[17]: [4] x [10]

[18]: [16] - [17]

[19]: [5] x [11]

[20]: [6] x [12]

[21]: [19] - [20]

Table BV-RJ3: Gas LDC Forecast and Realized EPS, Common Shares and Income per Value Line

ATTACHMENT A

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Water and wastewater industry annual reestablishment of authorized range of return on common equity for water and wastewater utilities pursuant to Section 367.081(4)(f), F.S.	DOCKET NO. 110006-WS ORDER NO. PSC-11-0287-PAA-WS ISSUED: July 5, 2011

The following Commissioners participated in the disposition of this matter:

ART GRAHAM, Chairman
LISA POLAK EDGAR
RONALD A. BRISÉ
EDUARDO E. BALBIS
JULIE I. BROWN

NOTICE OF PROPOSED AGENCY ACTION
ORDER ESTABLISHING AUTHORIZED RANGE OF RETURNS ON COMMON EQUITY FOR WATER AND WASTEWATER UTILITIES

BY THE COMMISSION:

NOTICE is hereby given by the Florida Public Service Commission that the action discussed herein is preliminary in nature and will become final unless a person whose interests are substantially affected files a petition for a formal proceeding, pursuant to Rule 25-22.029, Florida Administrative Code.

BACKGROUND

Section 367.081(4)(f), Florida Statutes (F.S.), authorizes this Commission to establish, not less than once each year, a leverage formula to calculate a reasonable range of returns on equity (ROE) for water and wastewater (WAW) utilities. The leverage formula methodology currently in use was established in Order No. PSC-01-2514-FOF-WS.[1] On October 23, 2008, this Commission held a formal hearing in Docket No. 080006-WS to allow interested parties to provide testimony regarding the validity of the leverage formula. Based on the record in that proceeding, we approved the 2008 leverage formula in Order No. PSC-08-0846-FOF-WS.[2] In

[1] See Order No. PSC-01-2514-FOF-WS, issued December 24, 2001, in Docket No. 010006-WS, In re: Water and wastewater industry annual reestablishment of authorized range of return on common equity for water and wastewater utilities pursuant to Section 367.081(4)(f), F.S.

[2] See Order No. PSC-08-0846-FOF-WS, issued December 31, 2008, in Docket No. 080006-WS, In re: Water and wastewater industry annual reestablishment of authorized range of return on common equity for water and wastewater utilities pursuant to Section 367.081(4)(f), F.S.

that order, we reaffirmed the methodology that was previously approved in Order No. PSC-01-2514-FOF-WS. In 2010, the Commission established the leverage formula currently in effect by Order No. PSC-10-0401-PAA-WS.[3]

This Order utilizes the current leverage formula methodology established in Order No. PSC-08-0846-FOF-WS. This methodology uses returns on equity (ROE) derived from financial models applied to an index of natural gas utilities. Based on the results of our annual review, there is an insufficient number of WAW utilities that meet the requisite criteria to assemble an appropriate proxy group. Therefore, since 2001, we have used natural gas utilities as the proxy companies for the leverage formula. There are many natural gas utilities that have actively traded stocks and forecasted financial data. We used natural gas utilities that derive at least 49 percent of their revenue from regulated rates. These utilities have market power and are influenced significantly by economic regulation. As explained in the body of this Order, the model results based on natural gas utilities are adjusted to reflect the risks faced by Florida WAW utilities.

Although subsection 367.081(4)(f), F.S., authorizes this Commission to establish a range of returns for setting the authorized ROE for WAW utilities, we retain the discretion to set an ROE for WAW utilities based on record evidence in any proceeding. If one or more parties file testimony in opposition to the use of the leverage formula, we will determine the appropriate ROE based on the evidentiary record in that proceeding. We have jurisdiction pursuant to Section 367.081, F.S.

DECISION

The current leverage formula methodology was applied using updated financial data, and is calculated as follows:

Return on Common Equity = 7.13% + 1.610/Equity Ratio

Where the Equity Ratio = Common Equity / (Common Equity + Preferred Equity + Long-Term and Short-Term Debt)

Range: 8.74% @ 100% equity to 11.16% @ 40% equity

Section 367.081(4)(f), F.S., authorizes us to establish a leverage formula to calculate a reasonable range of returns on equity for WAW utilities. We must establish this leverage formula not less than once a year.

We note that the leverage formula depends on four basic assumptions:

1) Business risk is similar for all WAW utilities;

[3] See Order No. PSC-10-0401-PAA-WS, issued June 18, 2010, in Docket No. 100006-WS, In re: Water and wastewater industry annual reestablishment of authorized range of return on common equity for water and wastewater utilities pursuant to Section 367.081(4)(f), F.S.

2) The cost of equity is an exponential function of the equity ratio but a linear function of the debt to equity ratio over the relevant range;

3) The marginal weighted average cost of investor capital is constant over the equity ratio range of 40 percent to 100 percent; and

4) The debt cost rate at an assumed Moody's Baa3 bond rating, plus a 50 basis point private placement premium and a 50 basis point small utility risk premium, represents the average marginal cost of debt to a Florida WAW utility over an equity ratio range of 40 percent to 100 percent.

For these reasons, the leverage formula is assumed to be appropriate for the average Florida WAW utility.

The leverage formula relies on two ROE models. We adjusted the results of these models to reflect differences in risk and debt cost between the index of companies used in the models and the average Florida WAW utility. Both models include a four percent adjustment for flotation costs. The models are as follows:

- A Discounted Cash Flow (DCF) model applied to an index of natural gas (NG) utilities that have publicly traded stock and are followed by the Value Line Investment Survey (Value Line). This DCF model is an annual model and uses prospective growth rates. The index consists of 9 companies that derive at least 49 percent of their total revenue from gas distribution service. These companies have a median Standard and Poor's bond rating of A.

- A Capital Asset Pricing Model (CAPM) using a market return for companies followed by Value Line, the average yield on the Treasury's long-term bonds projected by the Blue Chip Financial Forecasts, and the average beta for the index of NG utilities. The market return for the 2011 leverage formula was calculated using a quarterly DCF model.

We averaged the indicated returns of the above models and adjusted the result as follows:

- A bond yield differential of 57 basis points is added to reflect the difference in yields between an A/A2 rated bond, which is the median bond rating for the NG utility index, and a BBB-/Baa3 rated bond. Florida WAW utilities are assumed to be comparable to companies with the lowest investment grade bond rating, which is Baa3. This adjustment compensates for the difference between the credit quality of "A" rated debt and the credit quality of the minimum investment grade rating.

- A private placement premium of 50 basis points is added to reflect the difference in yields on publicly traded debt and privately placed debt, which is illiquid. Investors require a premium for the lack of liquidity of privately placed debt.

- A small utility risk premium of 50 basis points is added because the average Florida WAW utility is too small to qualify for privately placed debt.

After the above adjustments, the resulting cost of equity estimate is included in the average capital structure for the NG utilities. The derivation of the recommended leverage formula using the current methodology with updated financial data is presented in Attachment 1.

For administrative efficiency, the leverage formula is used to determine the appropriate return for an average Florida WAW utility. Traditionally, the Commission has applied the same leverage formula to all WAW utilities. As is the case with other regulated companies under the our jurisdiction, we have discretion in the determination of the appropriate ROE based on the evidentiary record in any proceeding. If one or more parties file testimony in opposition to the use of the leverage formula, we will determine the appropriate ROE based on the evidentiary record in that proceeding.

Based on the foregoing, we find it appropriate to cap returns on common equity at 11.16 percent for all WAW utilities with equity ratios less than 40 percent. We believe that this will discourage imprudent financial risk. This cap is consistent with the methodology in Order No. PSC-08-0846-FOF-WS.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that the leverage formula methodology, summarized herein and in Attachment 1, is hereby approved. It is further

ORDERED that Attachment 1 is incorporated herein by reference. It is further

ORDERED that returns on common equity are hereby capped at 11.16 percent for all water and wastewater utilities with equity ratios of less than 40 percent in order to discourage imprudent financial risk. It is further

ORDERED that the provisions of this Order, issued as proposed agency action, shall become final and effective upon the issuance of a Consummating Order unless an appropriate petition, in the form provided by Rule 28-106.201, Florida Administrative Code, is received by the Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on the date set forth in the "Notice of Further Proceedings" attached hereto. It is further

ORDERED that in the event this Order becomes final, this docket shall remain open to allow our staff to monitor changes in capital market conditions and to readdress the reasonableness of the leverage formula as conditions warrant.

By ORDER of the Florida Public Service Commission this 5th day of July, 2011.

HONG WANG
Chief Deputy Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399
(850) 413-6770
www.floridapsc.com

CERTIFICATE OF SERVICE

In accordance with Section 28-106.110, Florida Administrative Code, documents are electronically served on each party or each party's counsel or representative at the last e-mail address of record. Where there is no e-mail address, documents are electronically served via the last facsimile number of record and, if unavailable, documents are served via U.S. Mail at the last address of record.

(SEAL)

CMK

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing that is available under Section 120.57, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing will be granted or result in the relief sought.

Mediation may be available on a case-by-case basis. If mediation is conducted, it does not affect a substantially interested person's right to a hearing.

The action proposed herein is preliminary in nature. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, in the form provided by Rule 28-106.201, Florida Administrative Code. This petition must be received by the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on July 26, 2011.

In the absence of such a petition, this order shall become final and effective upon the issuance of a Consummating Order.

Any objection or protest filed in this/these docket(s) before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

SUMMARY OF RESULTS

Leverage Formula Update

	Updated Results	Currently in Effect
(A) DCF ROE for Natural Gas Index	8.25%	8.92%
(B) CAPM ROE for Natural Gas Index	9.40%	8.58%
AVERAGE	8.83%	8.75%
Bond Yield Differential	0.57%	0.53%
Private Placement Premium	0.50%	0.50%
Small-Utility Risk Premium	0.50%	0.50%
Adjustment to Reflect Required Equity Return at a 40% Equity Ratio	0.76%	0.57%
Cost of Equity for Average Florida WAW Utility at a 40% Equity Ratio	11.16%	10.85%

2010 Leverage Formula (Currently in Effect)

Return on Common Equity	=	7.46% + 1.356/ER
Range of Returns on Equity	=	8.82% - 10.85%

2011 Leverage Formula

Return on Common Equity	=	7.13% + 1.610/ER
Range of Returns on Equity	=	8.74% - 11.16%

Marginal Cost of Investor Capital
Average Water and Wastewater Utility

Capital Component	Ratio	Marginal Cost Rate	Weighted Marginal Cost Rate
Common Equity	49.30%	10.40%	5.13%
Total Debt	50.70%	7.13% *	3.61%
	100.00%		8.74%

A 40% equity ratio is the floor for calculating the required return on common equity. The return on equity at a 40% equity ratio is 7.13% + 1.610/.40 = 11.16%

Marginal Cost of Investor Capital
Average Water & Wastewater Utility at 40% Equity Ratio

Capital Component	Ratio	Marginal Cost Rate	Weighted Marginal Cost Rate
Common Equity	40.00%	11.16%	4.46%
Total Debt	60.00%	7.13% *	4.28%
	100.00%		8.74%

Where: ER = Equity Ratio = Common Equity/(Common Equity + Preferred Equity + Long-Term Debt + Short-Term Debt)

* Assumed Baa3 rate for March 2011 plus a 50 basis point private placement premium and a 50 basis point small utility risk premium.

Sources: Moody's Credit Perspectives and Value Line Selection and Opinion

ANNUAL DISCOUNTED CASH FLOW MODEL

INDEX NATURAL GAS INDEX

VALUE LINE ISSUE: March 11, 2011

COMPANY	DIV0	DIV1	DIV2	DIV3	DIV4	EPS4	ROE4	GR1-4	GR4+	APRIL HI-PR	APRIL LO-PR	APRIL AVER-PR
AGL RESOURCES INC.	1.80	1.84	1.88	1.92	1.96	3.75	12.50	1.0213	1.0597	41.61	38.58	40.095
ATMOS ENERGY CORPORATION	1.36	1.38	1.40	1.43	1.45	2.70	9.00	1.0166	1.0417	34.94	32.76	33.850
LACLEDE GROUP, INC.	1.61	1.65	1.70	1.75	1.80	3.15	10.00	1.0294	1.0429	38.98	36.30	37.640
NICOR INC.	1.86	1.86	1.86	1.86	1.86	2.80	10.00	1.0000	1.0336	55.50	52.22	53.860
NORTHWEST NATURAL GAS CO.	1.72	1.76	1.77	1.79	1.80	3.20	10.00	1.0075	1.0438	46.37	44.08	45.225
PIEDMONT NATURAL GAS CO., INC.	1.15	1.19	1.23	1.27	1.31	1.90	12.50	1.0325	1.0388	32.00	29.00	30.500
SOUTH JERSEY INDUSTRIES, INC.	1.48	1.60	1.72	1.86	2.00	4.10	17.50	1.0772	1.0896	58.03	54.05	56.040
SOUTHWEST GAS CORPORATION	1.05	1.10	1.15	1.20	1.25	2.00	9.00	1.0435	1.0338	39.89	36.97	38.430
WGL HOLDINGS, INC.	1.53	1.57	1.61	1.64	1.68	2.70	10.00	1.0228	1.0378	39.68	36.93	38.305
AVERAGE				1.7575								

S&P STOCK GUIDE: MAY 2011 with APRIL Stock Prices

Stock Price w/four Percent Flotation Costs		$39.89		Annual	8.25%	ROE
Cash Flows	1.4019	1.3315	1.2628	1.1982	1.1428	33.5503
Present Value of Cash Flows	39.8875					

NOTE: The cash flows for this multi-stage DCF Model are derived using the average forecasted dividends and the near term and long term growth rates. The discount rate, 8.25%, equates the cash flows with the average stock price less flotation cost.
$39.89 = April 2011 average stock price with a 4% flotation cost.
8.25% = Cost of equity required to match the current stock price with the expected cash flows.
Sources:
1. Stock Prices - S&P Stock Guide, May 2011 Edition.
2. DPS, EPS, ROE - Value Line Issue: March 11, 2011.

Capital Asset Pricing Model Cost of Equity for
Water and Wastewater Industry

CAPM analysis formula

K	=	RF + Beta(MR - RF)
K	=	Investor's required rate of return
RF	=	Risk-free rate (Blue Chip forecast for Long-term Treasury bond, May 1, 2011)
Beta	=	Measure of industry-specific risk (Average for water utilities followed by Value Line)
MR	=	Market return (Value Line Investment Survey For Windows, May 2011)
9.40%	=	4.94% + 0.67(11.28% - 4.94%) + 0.20%

Note: We calculated the market return using a quarterly DCF model for a large number of dividend paying stocks followed by Value Line. For May 2011, the result was 11.28%. We also added 20 basis points to the CAPM result to allow for a four-percent flotation cost.

BOND YIELD DIFFERENTIALS									
Public Utility Long Term Bond Yield Averages									
120 Month Average Spread		0.1424		0.1424		0.1424		0.1424	
MONTH/YEAR	A2	SPREAD	A3	SPREAD	Baa1	SPREAD	Baa2	SPREAD	Baa3
Mar-11	5.54	0.15	5.69	0.15	5.84	0.15	5.99	0.15	6.14
Sources: Moody's Credit Perspectives and Value Line Selection and Opinion									

INDEX STATISTICS AND FACTS

Natural Gas Distribution Proxy Group	S & P Bond Rating	% of Gas Revenue	V/L Market Capital ($ millions)	Equity Ratio	Value Line Beta
AGL Resources Inc.	A-	63%	$ 3,247.10	40.12%	0.75
Atmos Energy Corporation	BBB+	65%	$ 3,102.80	48.58%	0.65
Laclede Group, Inc.	A	51%	$ 862.82	54.30%	0.60
NICOR Inc.	AA	81%	$ 2,541.71	54.45%	0.75
Northwest Natural Gas Co.	A+	94%	$ 1,217.71	44.65%	0.60
Piedmont Natural Gas Co., Inc.	A	100%	$ 2,280.01	49.77%	0.65
South Jersey Industries, Inc.	A	51%	$ 1,702.11	44.81%	0.65
Southwest Gas Corporation	BBB	83%	$ 1,784.55	47.49%	0.75
WGL Holdings, Inc.	AA-	49%	$ 1,985.64	59.55%	0.65
Average:				49.30%	0.67
Sources:					

Value Line Investment Survey for Windows, May 2011
S.E.C. Forms 10Q and 10K for Companies
AUS Utility Report, May 2011

ATTACHMENT B

S&P 500

Equity Indices

S&P INDICES

BLOOMBERG℠ Homepage:
SPXU <GO>

For more information visit:
www.standardandpoors.com/indices/us

For comprehensive index data visit Standard & Poor's Index Data Platform (IDP): www.sp-indexdata.com

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Tokyo	+813.4550.8463
Beijing	+86.10.6569.2950
Sydney	+61.2.9255.9870
Mumbai	+91.22.26598359
Dubai	+971.4.3727100

About the Index

Widely regarded as the best single gauge of the U.S. equities market, this world-renowned index includes 500 leading companies in leading industries of the U.S. economy. Although the S&P 500® focuses on the large cap segment of the market, with approximately 75% coverage of U.S. equities, it is also an ideal proxy for the total market. S&P 500 is part of a series of S&P U.S. indices that can be used as building blocks for portfolio construction.

S&P 500 is maintained by the S&P Index Committee, a team of Standard & Poor's economists and index analysts, who meet on a regular basis. The goal of the Index Committee is to ensure that the S&P 500 remains a leading indicator of U.S. equities, reflecting the risk and return characteristics of the broader large cap universe on an on-going basis. The Index Committee also monitors constituent liquidity to ensure efficient portfolio trading while keeping index turnover to a minimum.

Index Methodology

The S&P Index Committee follows a set of published guidelines for maintaining the index. Complete details of these guidelines, including the criteria for index additions and removals, policy statements, and research papers are available on the Web site at www.indices.standardandpoors.com. These guidelines provide the transparency required and fairness needed to enable investors to replicate the index and achieve the same performance as the S&P 500.

Criteria for Index Additions

- *U.S. Company.* Determining factors include location of the company's assets & revenues, its corporate structure, its SEC filing type, and its exchange listings.
- *Market Capitalization.* Companies with market cap in excess of US$ 4 billion. This minimum is reviewed from time to time to ensure consistency with market conditions.
- *Public Float.* There must be public float of at least 50%.
- *Financial Viability.* Companies should have four consecutive quarters of positive as-reported earnings, where as-reported earnings are defined as GAAP Net Income excluding discontinued operations and extraordinary items.
- *Adequate Liquidity and Reasonable Price.* The ratio of annual dollar value traded to float adjusted market capitalization for the company should be 1.0 or greater. Very low stock prices can affect a stock's liquidity.
- *Sector Representation.* Companies' industry classifications contribute to the maintenance of a sector balance that is in line with the sector composition of the universe of eligible companies within the defined market cap range.
- *Company Type.* All U.S. common equities listed on the NYSE (including NYSE Arca and NYSE Amex) and the NASDAQ stock market. REITs (excluding mortgage REITs) and business development companies (BDCs) are also eligible for inclusion. Closed end funds, ETF's, ADR's, ADS's and certain other types of securities are ineligible for inclusion. See methodology for details.

Continued index membership is not necessarily subject to these guidelines. The Index Committee strives to minimize unnecessary turnover in index membership and each removal is determined on a case-by-case basis.

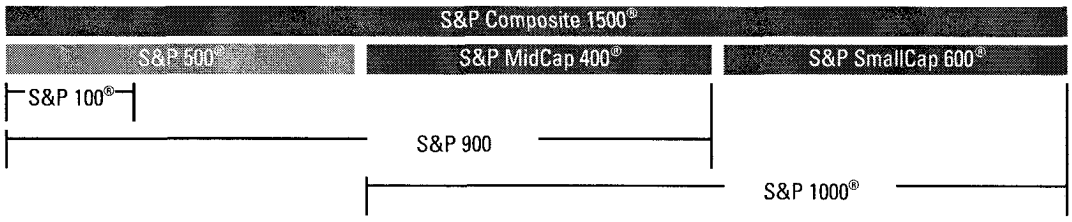
Criteria for Index Removals

- Companies that substantially violate one or more of the criteria for index inclusion.
- Companies involved in merger, acquisition, or significant restructuring such that they no longer meet the inclusion criteria.

S&P 500

June 30, 2011

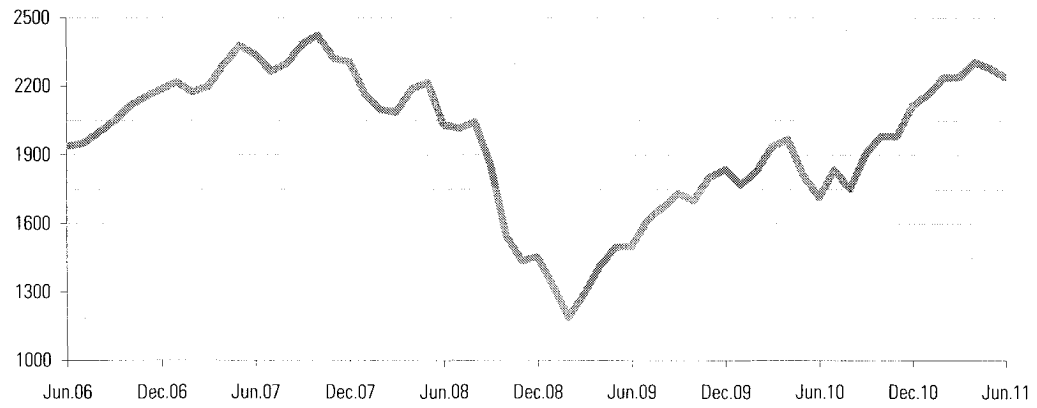
The large cap segment of the U.S. equities market, covering approximately 75% of the U.S. equities market.



Index Performance

Returns	1 Month	-1.67%
	3 Month	0.10%
	YTD	6.02%
Annualized	1 Year	30.69%
Returns	3 Years	3.34%
	5 Years	2.94%
	7 Years	4.22%
Annualized	3 Years Std Dev	21.21%
Risk	5 Years Std Dev	17.88%
Sharpe Ratio	3 Years	0.0713
	5 Years	0.0442

5 Year Historical Performance



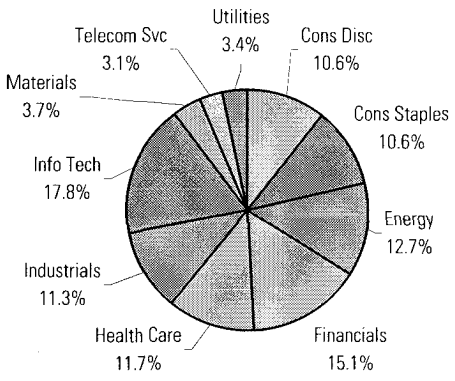
Top 10 Companies By Weight

Country	Company	Float Adjusted Market Cap ($ Million)	Index Weight	Sector Weight	Investable Weight Factor	GICS® Sector
United States	Exxon Mobil Corp	400,884.9	3.34%	26.31%	1.00	Energy
United States	Apple Inc.	310,412.5	2.58%	14.52%	1.00	Information Technology
United States	Intl Business Machines Corp	207,781.4	1.73%	9.72%	1.00	Information Technology
United States	Chevron Corp	206,736.2	1.72%	13.57%	1.00	Energy
United States	General Electric Co	200,018.7	1.66%	14.78%	1.00	Industrials
United States	Microsoft Corp	192,941.7	1.61%	9.02%	0.88	Information Technology
United States	AT&T Inc	186,010.0	1.55%	50.04%	1.00	Telecommunication Services
United States	Johnson & Johnson	182,340.8	1.52%	12.95%	1.00	Health Care
United States	Procter & Gamble	177,442.6	1.48%	13.87%	1.00	Consumer Staples
United States	Pfizer Inc	162,763.3	1.35%	11.56%	1.00	Health Care

Tickers

S&P 500	
BLOOMBERG℠	SPX
Reuters	.SPX
Total Return	
BLOOMBERG℠	SPTR
Reuters	.SPXTR

Sector Breakdown



Index Portfolio Characteristics

Number of Companies	500
Adjusted Market Cap ($ Billion)	12,017.49
Company Size By Market Cap (Adjusted $ Billion):	
Average	24.03
Largest	400.88
Smallest	1.65
Median	11.43
% Weight Largest Company	3.34%
Top 10 Holdings (% Market Cap Share)	18.53%

Source: Standard & Poor's. Data as of June 30, 2011. Charts and graphs are provided for illustrative purposes. Past performance is not a guarantee of future results.

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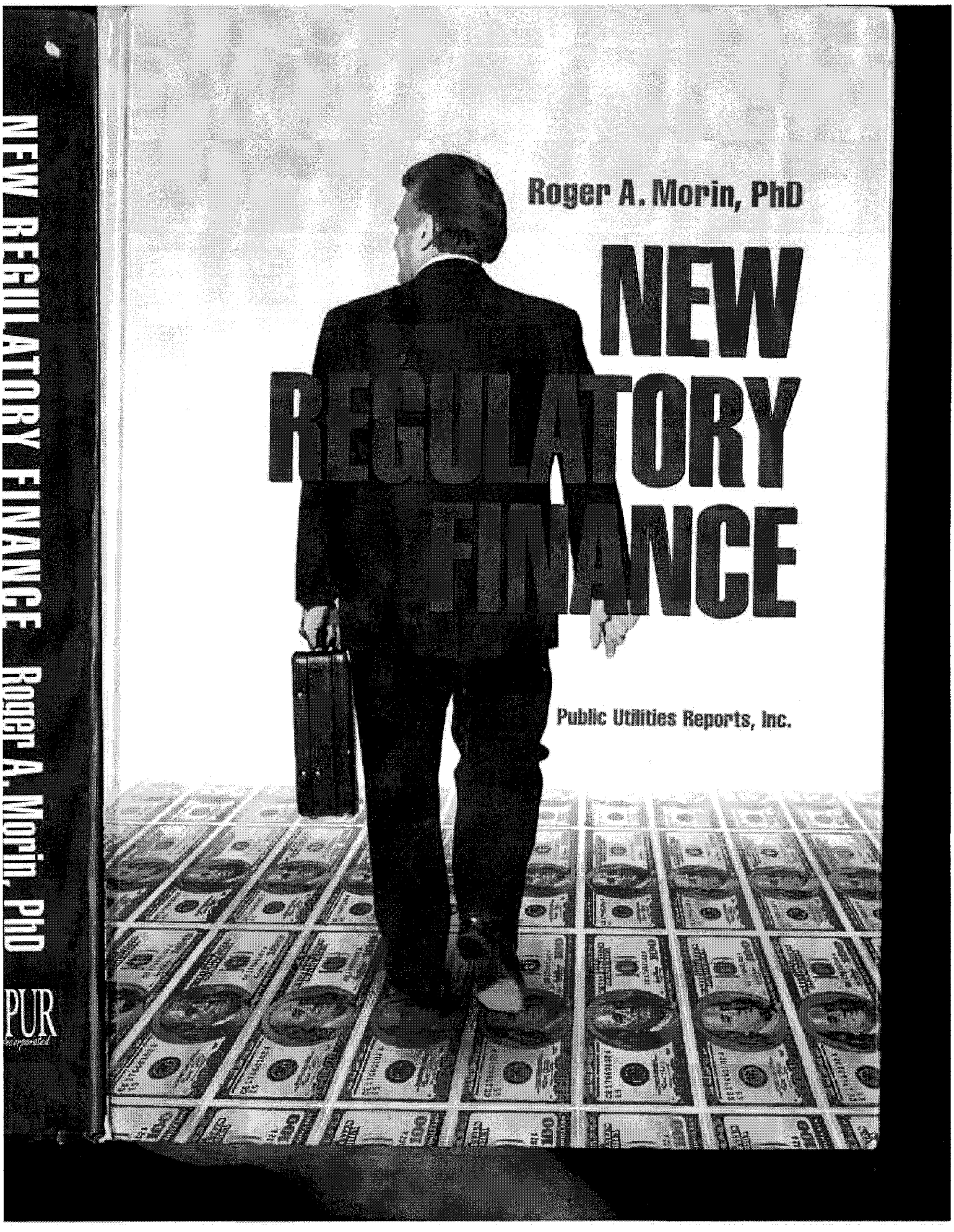
ATTACHMENT C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expectations. The sheer volume of earnings forecasts available from the investment community relative to the scarcity of dividend forecasts attests to their importance. The fact that these investment information providers focus on growth in earnings rather than growth in dividends indicates that the investment community regards earnings growth as a superior indicator of future long-term growth. Surveys of analytical techniques actually used by analysts reveal the dominance of earnings and conclude that earnings are considered far more important than dividends. Finally, Value Line's principal investment rating assigned to individual stocks, Timeliness Rank, is based primarily on earnings, accounting for 65% of the ranking.

Historical Growth Rates Versus Analysts' Forecasts

Obviously, historical growth rates as well as analysts' forecasts provide relevant information to the investor with regard to growth expectations. Each proxy for expected growth brings information to the judgment process from a different light. Neither proxy is without blemish; each has advantages and shortcomings. Historical growth rates are available and easily verifiable, but may no longer be applicable if structural shifts have occurred. Analysts' growth forecasts may be more relevant since they encompass both history and current changes, but are nevertheless imperfect proxies.

9.5 Growth Estimates: Sustainable Growth Method

The third method of estimating the growth component in the DCF model, alternately referred to as the "sustainable growth" or "retention ratio" method, can be used by investment analysts to predict future growth in earnings and dividends. In this method, the fraction of earnings expected to be retained by the company, b, is multiplied by the expected return on book equity, r, to produce the growth forecast. That is,

$$g = b \times r$$

The conceptual premise of the method, enunciated in Chapter 8, Section 8.4, is that future growth in dividends for existing equity can only occur if a portion of the overall return to investors is reinvested into the firm instead of being distributed as dividends.

For example, if a company earns 12% on equity, and pays all the earnings out in dividends, the retention factor, b, is zero and earnings per share will not grow for the simple reason that there are no increments to the asset base (rate base). Conversely, if the company retains all its earnings and pays no dividends, it would grow at an annual rate of 12%. Or again, if the company earns 12% on equity and pays out 60% of the earnings in dividends, the

retention factor is 40%, and earnings growth will be 40% × 12% = 4.8% per year.

In implementing the method, both 'b' and 'r' should be the rate that the market expects to prevail in the future. If no explicit forecast of 'b' is available, it is reasonable to assume that the utility's future retention ratio will, on average, remain unchanged from its present level. Or, it can be estimated by taking a weighted average of past retention ratios as a proxy for the future on the grounds that utilities' target retention ratios are usually, although not always, stable.[14]

Both historical and forecast values of 'r' can be used to estimate g, although forecast values are superior. The use of historical realized book returns on equity rather than the expected return on equity is questionable since reliance on achieved results involves circular reasoning. Realized returns are the results of the regulatory process itself, and are also subject to tests of fairness and reasonableness. As a gauge of the expected return on book equity, either direct published analysts' forecasts of the long-run expected return on equity, or authorized rates of return in recent regulatory cases can be used as a guide. As a floor estimate, it seems reasonable for investors to expect allowed equity returns by state regulatory commissions to be in excess of the current cost of debt to the utility in question.

Another way of obtaining the expected 'r' is to examine its fundamental determinants. Since earnings per share, E, can be stated as dividends per share, D, divided by the payout ratio (1 − b), the earnings per share capitalized by investors can be inferred by dividing the current dividend by an expected payout ratio. Provided that a utility company follows a fairly stable dividend policy, the possibility of error is less when estimating the payout than when estimating the expected return on equity or the expected growth rate. Using this approach, and denoting book value per share by B, the expected return on equity is:

$$r = E/B = (D/(1 - b)) / B \qquad (9\text{-}9)$$

Estimates of the expected payout ratio can be inferred from historical 10-year average payout ratio data for utilities, assuming a stable dividend policy has been pursued. Since individual averages frequently tend to regress toward the grand mean, the historical payout ratio needs to be adjusted for this tendency, using statistical techniques for predicting future values based on this tendency of individual values to regress toward the grand mean over time.

An application of the sustainable growth method is shown in example 9-1.

[14] Statistically superior predictions of future averages are made by weighting individual past averages with the grand mean, with the variance within the individual averages and the variance across individual averages serving as weights.

EXAMPLE 9-1

Southeastern Electric's sustainable growth rate is required for upcoming rate case testimony. As a gauge of the expected return on equity, authorized rates of return in recent decisions for eastern U.S. electric utilities as reported by Value Line for 2005 and 2006 averaged 11%, with a standard deviation of 1%. In other words, the majority of utilities were authorized to earn 11%, with the allowed return on equity ranging from 10% to 12%. As a gauge of the expected retention ratio, the average 2006 payout ratio of 34 eastern electric utilities as compiled by Value Line was 60%, which indicates an average retention ratio of 40%, with a standard deviation of 5%. This was consistent with the long-run target retention ratio indicated by the management of Southeastern Electric. It is therefore reasonable to postulate that investors expect a retention ratio ranging from 35% to 45% for the company with a likely value of 40%. In Table 9-4 below, expected retention ratios of 35% to 45% and assumed returns on equity from 10% to 12% are multiplied to produce sustainable growth rates ranging from 3.8% to 5.4% with a likely value of 4.6%.

TABLE 9-4
SUSTAINABLE GROWTH METHOD ILLUSTRATION

Expected Retention Ratio (b)	Expected Return on Book Equity (r)		
	10%	11%	12%
35%	3.5%	3.9%	4.2%
40%	4.0%	4.4%	4.8%
45%	4.5%	5.0%	5.4%

It should be pointed out that published forecasts of the expected return on equity by analysts such as Value Line are sometimes based on end-of-period book equity rather than on average book equity. The following formula[15]

[15] The return on year-end common equity, r, is defined as $r = E/B_t$, where E is earnings per share, and B_t is the year-end book value per share. The return on average common equity, r_a, is defined as: $r_a = E/B_a$ where B_a = average book value per share. The latter is by definition: $B_a = (B_t + B_{t-1})/2$ where B_t is the year-end book equity per share and B_{t-1} is the beginning-of-year book equity per share. Dividing r by r_a and substituting:

$$\frac{r}{r_a} = \frac{E/B_t}{E/B_a} = \frac{B_a}{B_t} + \frac{B_t + B_{t-1}}{2B_t}$$

Solving for r_a, a formula for translating the return on year-end equity into the return on average equity is obtained, using reported beginning-of-the year and end-of-year common equity figures:

$$r_a = r\frac{2B_t}{B_t + B_{t-1}}$$

adjusts the reported end-of-year values so that they are based on average common equity, which is the common regulatory practice:

$$r_a = r_t \frac{2B_t}{B_t + B_{t-1}} \tag{9-10}$$

The sustainable growth method can also be extended to include external financing. From Chapter 8, the expanded growth estimate is given by:

$$g = br + sv$$

where b and r are defined as previously, s is the expected percent growth in number of shares to finance investment, and v is the profitability of the equity investment. The variable s measures the long-run expected stock financing that the utility will undertake. If the utility's investments are growing at a stable rate and if the earnings retention rate is also stable, then s will grow at a stable rate. The variable s can be estimated by taking a weighted average of past percentage increases in the number of shares. This measurement is difficult, however, owing to the sporadic and episodic nature of stock financing, and smoothing techniques must be employed. The variable v is the profitability of the equity investment and can be measured as the difference of market price and book value per share divided by the latter, as discussed in Chapter 8.

There are three problems in the practical application of the sustainable growth method. The first is that it may be even more difficult to estimate what b, r, s, and v investors have in mind than it is to estimate what g they envisage. It would appear far more economical and expeditious to use available growth forecasts and obtain g directly instead of relying on four individual forecasts of the determinants of such growth. It seems only logical that the measurement and forecasting errors inherent in using four different variables to predict growth far exceed the forecasting error inherent in a direct forecast of growth itself.

Second, there is a potential element of circularity in estimating g by a forecast of b and ROE for the utility being regulated, since ROE is determined in large part by regulation. To estimate what ROE resides in the minds of investors is equivalent to estimating the market's assessment of the outcome of regulatory hearings. Expected ROE is exactly what regulatory commissions set in determining an allowed rate of return. In other words, the method requires an estimate of return on equity before it can even be implemented. Common sense would dictate the inconsistency of a return on equity recom-

mendation that is different than the expected ROE that the method assumes the utility will earn forever. For example, using an expected return on equity of 11% to determine the growth rate and using the growth rate to recommend a return on equity of 9% is inconsistent. It is not reasonable to assume that this regulated utility company is expected to earn 11% forever, but recommend a 9% return on equity. The only way this utility can earn 11% is that rates be set by the regulator so that the utility will in fact earn 11%. One is assuming, in effect, that the company will earn a return rate exceeding the recommended cost of equity forever, but then one is recommending that a different rate be granted by the regulator. In essence, using an ROE in the sustainable growth formula that differs from the final estimated cost of equity is asking the regulator to adopt two different returns.

The circularity problem is somewhat dampened by the self-correcting nature of the DCF model. If a high equity return is granted, the stock price will increase in response to the unanticipated favorable return allowance, lowering the dividend yield component of market return in compensation for the high g induced by the high allowed return. At the next regulatory hearing, more conservative forecasts of r would prevail. The impact on the dual components of the DCF formula, yield and growth, are at least partially offsetting.

Third, the empirical finance literature discussed earlier demonstrates that the sustainable growth method of determining growth is not as significantly correlated to measures of value, such as stock price and price/earnings ratios, as other historical growth measures or analysts' growth forecasts. Other proxies for growth, such as historical growth rates and analysts' growth forecasts, outperform retention growth estimates. See for example Timme and Eiseman (1989).

In summary, there are three proxies for the expected growth component of the DCF model: historical growth rates, analysts' forecasts, and the sustainable growth method. Criteria in choosing among the three proxies should include ease of use, ease of understanding, theoretical and mathematical correctness, and empirical validation. The latter two are crucial. The method should be logically valid and consistent, and should possess an adequate track record in predicting and explaining security value. The retention growth method is the weakest of the three proxies on both conceptual and empirical grounds. The research in this area has shown that the first two growth proxies do a better job of explaining variations in market valuation (M/B and P/E ratios) and are more highly correlated to measures of value than is the retention growth proxy.

ATTACHMENT D

The Journal of Portfolio Management

Investor growth expectations: Analysts vs. history

Analysts' growth forecasts dominate past trends in predicting stock prices.

James H. Vander Weide and Willard T. Carleton

For the purposes of implementing the Discounted Cash Flow (DCF) cost of equity model, the analyst must know which growth estimate is embodied in the firm's stock price. A study by Cragg and Malkiel (1982) suggests that the stock valuation process embodies analysts' forecasts rather than historically based growth figures such as the ten-year historical growth in dividends per share or the five-year growth in book value per share. The Cragg and Malkiel study is based on data for the 1960s, however, a decade that was considerably more stable than the recent past.

As the issue of which growth rate to use in implementing the DCF model is so important to applications of the model, we decided to investigate whether the Cragg and Malkiel conclusions continue to hold in more recent periods. This paper describes the results of our study.

STATISTICAL MODEL

The DCF model suggests that the firm's stock price is equal to the present value of the stream of dividends that investors expect to receive from owning the firm's shares. Under the assumption that investors expect dividends to grow at a constant rate, g, in perpetuity, the stock price is given by the following simple expression:

$$P_s = \frac{D(1+g)}{k-g} \qquad (1)$$

where:

P_s = current price per share of the firm's stock;

D = current annual dividend per share;

g = expected constant dividend growth rate; and

k = required return on the firm's stock.

Dividing both sides of Equation (1) by the firm's current earnings, E, we obtain:

$$\frac{P_s}{E} = \frac{D}{E} \cdot \frac{(1+g)}{k-g} \qquad (2)$$

Thus, the firm's price/earnings (P/E) ratio is a nonlinear function of the firm's dividend payout ratio (D/E), the expected growth in dividends (g), and the required rate of return.

To investigate what growth expectation is embodied in the firm's current stock price, it is more convenient to work with a linear approximation to Equation (2). Thus, we will assume that:

$$P/E = a_0(D/E) + a_1 g + a_2 k. \qquad (3)$$

(Cragg and Malkiel found this assumption to be reasonable throughout their investigation.)

Furthermore, we will assume that the required

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rate of return, k, in Equation (3) depends on the values of the risk variables B, Cov, Rsq, and Sa, where B is the firm's Value Line beta; Cov is the firm's pretax interest coverage ratio; Rsq is a measure of the stability of the firm's five-year historical EPS; and Sa is the standard deviation of the consensus analysts' five-year EPS growth forecast for the firm. Finally, as the linear form of the P/E equation is only an approximation to the true P/E equation, and B, Cov, Rsq, and Sa are only proxies for k, we will add an error term, e, that represents the degree of approximation to the true relationship.

With these assumptions, the final form of our P/E equation is as follows:

$$P/E = a_0(D/E) + a_1 g + a_2 B + a_3 Cov + a_4 Rsq + a_5 Sa + e. \quad (4)$$

The purpose of our study is to use more recent data to determine which of the popular approaches for estimating future growth in the Discounted Cash Flow model is embodied in the market price of the firm's shares.

We estimated Equation (4) to determine which estimate of future growth, g, when combined with the payout ratio, D/E, and risk variables B, Cov, Rsq, and Sa, provides the best predictor of the firm's P/E ratio. To paraphrase Cragg and Malkiel, we would expect that growth estimates found in the best-fitting equation more closely approximate the expectation used by investors than those found in poorer-fitting equations.

DESCRIPTION OF DATA

Our data sets include both historically based measures of future growth and the consensus analysts' forecasts of five-year earnings growth supplied by the Institutional Brokers Estimate System of Lynch, Jones & Ryan (IBES). The data also include the firm's dividend payout ratio and various measures of the firm's risk. We include the latter items in the regression, along with earnings growth, to account for other variables that may affect the firm's stock price.

The data include:

Earnings Per Share. Because our goal is to determine which earnings variable is embodied in the firm's market price, we need to define this variable with care. Financial analysts who study a firm's financial results in detail generally prefer to "normalize" the firm's reported earnings for the effect of extraordinary items, such as write-offs of discontinued operations, mergers and acquisitions. They also attempt, to the extent possible, to state earnings for different firms using a common set of accounting conventions.

We have defined "earnings" as the consensus analyst estimate (as reported by IBES) of the firm's earnings for the forthcoming year.[1] This definition approximates the normalized earnings that investors most likely have in mind when they make stock purchase and sell decisions. It implicitly incorporates the analysts' adjustments for differences in accounting treatment among firms and the effects of the business cycle on each firm's results of operations. Although we thought at first that this earnings estimate might be highly correlated with the analysts' five-year earnings growth forecasts, that was not the case. Thus, we avoided a potential spurious correlation problem.

Price/Earnings Ratio. Corresponding to our definition of "earnings," the price/earnings ratio (P/E) is calculated as the closing stock price for the year divided by the consensus analyst earnings forecast for the forthcoming fiscal year.

Dividends. Dividends per share represent the common dividends declared per share during the calendar year, after adjustment for all stock splits and stock dividends). The firm's dividend payout ratio is then defined as common dividends per share divided by the consensus analyst estimate of the earnings per share for the forthcoming calendar year (D/E). Although this definition has the deficiency that it is obviously biased downward — it divides this year's dividend by next year's earnings — it has the advantage that it implicitly uses a "normalized" figure for earnings. We believe that this advantage outweighs the deficiency, especially when one considers the flaws of the apparent alternatives. Furthermore, we have verified that the results are insensitive to reasonable alternative definitions (see footnote 1).

Growth. In comparing historically based and consensus analysts' forecasts, we calculated forty-one different historical growth measures. These included the following: 1) the past growth rate in EPS as determined by a log-linear least squares regression for the latest year,[2] two years, three years, . . ., and ten years; 2) the past growth rate in DPS for the latest year, two years, three years, . . ., and ten years; 3) the past growth rate in book value per share (computed as the ratio of common equity to the outstanding common equity shares) for the latest year, two years, three years, . . ., and ten years; 4) the past growth rate in cash flow per share (computed as the ratio of pretax income, depreciation, and deferred taxes to the outstanding common equity shares) for the latest year, two years, three years, . . ., and ten years; and 5) plowback growth (computed as the firm's retention ratio for the current year times the firm's latest annual return on common equity).

We also used the five-year forecast of earnings

per share growth compiled by IBES and reported in mid-January of each year. This number represents the consensus (i.e., mean) forecast produced by analysts from the research departments of leading Wall Street and regional brokerage firms over the preceding three months. IBES selects the contributing brokers "because of the superior quality of their research, professional reputation, and client demand" (IBES *Monthly Summary Book*).

Risk Variables. Although many risk factors could potentially affect the firm's stock price, most of these factors are highly correlated with one another. As shown above in Equation (4), we decided to restrict our attention to four risk measures that have intuitive appeal and are followed by many financial analysts: 1) B, the firm's beta as published by Value Line; 2) Cov, the firm's pretax interest coverage ratio (obtained from Standard & Poor's Compustat); 3) Rsq, the stability of the firm's five-year historical EPS (measured by the R^2 from a log-linear least squares regression); and 4) Sa, the standard deviation of the consensus analysts' five-year EPS growth forecast (mean forecast) as computed by IBES.

After careful analysis of the data used in our study, we felt that we could obtain more meaningful results by imposing six restrictions on the companies included in our study:

1. Because of the need to calculate ten-year historical growth rates, and because we studied three different time periods, 1981, 1982, and 1983, our study requires data for the thirteen-year period 1971-1983. We included only companies with at least a thirteen-year operating history in our study.
2. As our historical growth rate calculations were based on log-linear regressions, and the logarithm of a negative number is not defined, we excluded all companies that experienced negative EPS during any of the years 1971-1983.
3. For similar reasons, we also eliminated companies that did not pay a dividend during any one of the years 1971-1983.
4. To insure comparability of time periods covered by each consensus earnings figure in the P/E ratios, we eliminated all companies that did not have a December 31 fiscal year-end.
5. To eliminate distortions caused by highly unusual events that distort current earnings but not expected future earnings, and thus the firm's price/earnings ratio, we eliminated any firm with a price/earnings ratio greater than 50.
6. As the evaluation of analysts' forecasts is a major part of this study, we eliminated all firms that IBES did not follow.

Our final sample consisted of approximately sixty-five utility firms.[3]

RESULTS

To keep the number of calculations in our study to a reasonable level, we performed the study in two stages. In Stage 1, all forty-one historically oriented approaches for estimating future growth were correlated with each firm's P/E ratio. In Stage 2, the historical growth rate with the highest correlation to the P/E ratio was compared to the consensus analyst growth rate in the multiple regression model described by Equation (4) above. We performed our regressions for each of three recent time periods, because we felt the results of our study might vary over time.

First-Stage Correlation Study

Table 1 gives the results of our first-stage correlation study for each group of companies in each of the years 1981, 1982, and 1983. The values in this table measure the correlation between the historically oriented growth rates for the various time periods and the firm's end-of-year P/E ratio.

The four variables for which historical growth rates were calculated are shown in the left-hand column: EPS indicates historical earnings per share growth, DPS indicates historical dividend per share growth, BVPS indicates historical book value per share growth, and CFPS indicates historical cash flow per share growth. The term "plowback" refers to the product of the firm's retention ratio in the currennt year and its return on book equity for that year. In all, we calculated forty-one historically oriented growth rates for each group of firms in each study period.

The goal of the first-stage correlation analysis was to determine which historically oriented growth rate is most highly correlated with each group's year-end P/E ratio. Eight-year growth in CFPS has the highest correlation with P/E in 1981 and 1982, and ten-year growth in CFPS has the highest correlation with year-end P/E in 1983. In all cases, the plowback estimate of future growth performed poorly, indicating that — contrary to generally held views — plowback is not a factor in investor expectations of future growth.

Second-Stage Regression Study

In the second stage of our regression study, we ran the regression in Equation (4) using two different measures of future growth, g: 1) the best historically oriented growth rate (g_h) from the first-stage correlation study, and 2) the consensus analysts' forecast (g_a) of five-year EPS growth. The regression results, which are shown in Table 2, support at least

TABLE 1

Correlation Coefficients of All Historically Based Growth Estimates by Group and by Year with P/E

Historical Growth Rate Period in Years

Current Year	1	2	3	4	5	6	7	8	9	10
1981										
EPS	−0.02	0.07	0.03	0.01	0.03	0.12	0.08	0.09	0.09	0.09
DPS	0.05	0.18	0.14	0.15	0.14	0.15	0.19	0.23	0.23	0.23
BVPS	0.01	0.11	0.13	0.13	0.16	0.18	0.15	0.15	0.15	0.15
CFPS	−0.05	0.04	0.13	0.22	0.28	0.31	0.30	0.31	−0.57	−0.54
Plowback	0.19									
1982										
EPS	−0.10	−0.13	−0.06	−0.02	−0.02	−0.01	−0.03	−0.03	0.00	0.00
DPS	−0.19	−0.10	0.03	0.05	0.07	0.08	0.09	0.11	0.13	0.13
BVPS	0.07	0.08	0.11	0.11	0.09	0.10	0.11	0.11	0.09	0.09
CFPS	−0.02	−0.08	0.00	0.10	0.16	0.19	0.23	0.25	0.24	0.07
Plowback	0.04									
1983										
EPS	−0.06	−0.25	−0.25	−0.24	−0.16	−0.11	−0.05	0.00	0.02	0.02
DPS	0.03	−0.10	−0.03	0.08	0.15	0.21	0.21	0.21	0.22	0.24
BVPS	0.03	0.10	0.04	0.09	0.15	0.16	0.19	0.21	0.22	0.21
CFPS	−0.08	0.01	0.02	0.08	0.20	0.29	0.35	0.38	0.40	0.42
Plowback	−0.08									

two general conclusions regarding the pricing of equity securities.

First, we found overwhelming evidence that the consensus analysts' forecast of future growth is superior to historically oriented growth measures in predicting the firm's stock price. In every case, the R^2 of the regression containing the consensus analysts' forecast is higher than the R^2 in the regression containing the historical growth measure. The regression coefficients in the equation containing the consensus analysts' forecast also are considerably more significant than they are in the alternative regression. These results are consistent with those found by Cragg and Malkiel for data covering the period 1961-1968. Our results also are consistent with the hypothesis that investors use analysts' forecasts, rather than historically oriented growth calculations, in making stock buy–and–sell decisions.

TABLE 2

Regression Results
Model I

Part A: *Historical*

$P/E = a_0 + a_1 D/E + a_2 g_h + a_3 B + a_4 Cov + a_5 Rsq + a_6 Sa$

Year	$\hat{a}_0$	$\hat{a}_1$	$\hat{a}_2$	$\hat{a}_3$	$\hat{a}_4$	$\hat{a}_5$	$\hat{a}_6$	R^2	F Ratio
1981	−6.42*	10.31*	7.67*	3.24	0.54*	1.42*	57.43	0.83	46.49
	(5.50)	(14.79)	(2.20)	(2.86)	(2.50)	(2.85)	(4.07)		
1982	−2.90*	9.32*	8.49*	2.85	0.45*	−0.42	3.63	0.86	65.53
	(2.75)	(18.52)	(4.18)	(2.83)	(2.60)	(0.05)	(0.26)		
1983	−5.96*	10.20*	19.78*	4.85	0.44*	0.33	32.49	0.82	45.26
	(3.70)	(12.20)	(4.83)	(2.95)	(1.89)	(0.50)	(1.29)		

Part B: *Analysis*

$P/E = a_0 + a_1 D/E + a_2 g_a + a_3 B + a_4 Cov + a_5 Rsq + a_6 Sa$

Year	$\hat{a}_0$	$\hat{a}_1$	$\hat{a}_2$	$\hat{a}_3$	$\hat{a}_4$	$\hat{a}_5$	$\hat{a}_6$	R^2	F Ratio
1981	−4.97*	10.62*	54.85*	−0.61	0.33*	0.63*	4.34	0.91	103.10
	(6.23)	(21.57)	(8.56)	(0.68)	(2.28)	(1.74)	(0.37)		
1982	−2.16*	9.47*	50.71*	−1.07	0.36*	−0.31	119.05*	0.90	97.62
	(2.59)	(22.46)	(9.31)	(1.14)	(2.53)	(1.09)	(1.60)		
3	−8.47*	11.96*	79.05*	2.16	0.56*	0.20	−34.43	0.87	69.81
	(7.07)	(16.48)	(7.84)	(1.55)	(3.08)	(0.38)	(1.44)		

Notes:

* Coefficient is significant at the 5% level (using a one-tailed test) and has the correct sign. T-statistic in parentheses.

Second, there is some evidence that investors tend to view risk in traditional terms. The interest coverage variable is statistically significant in all but one of our samples, and the stability of the operating income variable is statistically significant in six of the twelve samples we studied. On the other hand, the beta is never statistically significant, and the standard deviation of the analysts' five-year growth forecasts is statistically significant in only two of our twelve samples. This evidence is far from conclusive, however, because, as we demonstrate later, a significant degree of cross-correlation among our four risk variables makes any general inference about risk extremely hazardous.

Possible Misspecification of Risk

The stock valuation theory says nothing about which risk variables are most important to investors. Therefore, we need to consider the possibility that the risk variables of our study are only proxies for the "true" risk variables used by investors. The inclusion of proxy variables may increase the variance of the parameters of most concern, which in this case are the coefficients of the growth variables.[4]

To allow for the possibility that the use of risk proxies has caused us to draw incorrect conclusions concerning the relative importance of analysts' growth forecasts and historical growth extrapolations, we have also estimated Equation (4) with the risk variables excluded. The results of these regressions are shown in Table 3.

Again, there is overwhelming evidence that the consensus analysts' growth forecast is superior to the historically oriented growth measures in predicting the firm's stock price. The R^2 and t-statistics are higher in every case.

CONCLUSION

The relationship between growth expectations and share prices is important in several major areas of finance. The data base of analysts' growth forecasts collected by Lynch, Jones & Ryan provides a unique opportunity to test the hypothesis that investors rely more heavily on analysts' growth forecasts than on historical growth extrapolations in making security buy–and–sell decisions. With the help of this data base, our studies affirm the superiority of analysts' forecasts over simple historical growth extrapolations in the stock price formation process. Indirectly, this finding lends support to the use of valuation models whose input includes expected growth rates.

TABLE 3

Regression Results
Model II

Part A: *Historical*

$P/E = a_0 + a_1 D/E + a_2 g_h$

Year	$\hat{a}_0$	$\hat{a}_1$	$\hat{a}_2$	R^2	F Ratio
1981	−1.05	9.59	21.20	0.73	82.95
	(1.61)	(12.13)	(7.05)		
1982	0.54	8.92	12.18	0.83	167.97
	(1.38)	(17.73)	(6.95)		
1983	−0.75	8.92	12.18	0.77	107.82
	(1.13)	(12.38)	(7.94)		

Part B: *Analysis*

$P/E + a_0 + a_1 D/E + a_2 g_a$

Year	$\hat{a}_0$	$\hat{a}_1$	$\hat{a}_2$	R^2	F Ratio
1981	3.96	10.07	60.53	0.90	274.16
	(8.31)	(8.31)	(20.91)	(15.79)	
1982	−1.75	9.19	44.92	0.88	246.36
	(4.00)	(4.00)	(21.35)	(11.06)	
1983	−4.97	10.95	82.02	0.83	168.28
	(6.93)	(6.93)	(15.93)	(11.02)	

Notes:
* Coefficient is significant at the 5% level (using a one-tailed test) and has the correct sign. T-statistic in parentheses.

[1] We also tried several other definitions of "earnings," including the firm's most recent primary earnings per share prior to any extraordinary items or discontinued operations. [illegible] to reasonable alternative definitions of "earnings" we report only the results for the IBES consensus.

[2] For the latest year, we actually employed a point-to-point growth calculation because there were only two available observations.

[3] We use the word "approximately," because the set of available firms varied each year. In any case, the number varied only from zero to three firms on either side of the figures cited here.

[4] See Maddala (1977).

REFERENCES

Bower, R. S., and D. H. Bower. "Risk and the Valuation of Common Stock." *Journal of Political Economy*, May-June 1969, pp. 349-362.

Cragg, J. G., and Malkiel, B. G. "The Consensus and Accuracy of Some Predictions of the Growth of Corporate Earnings." *Journal of Finance*, March 1968, pp. 67-84.

Cragg, J. G., and Malkiel, B. G. *Expectations and the Structure of Share Prices*. Chicago: University of Chicago Press, 1982.

Elton, E. J., M. J. Gruber, and Mustava N. Gultekin. "Expectations and Share Prices." *Management Science*, September 1981, pp. 975-987.

Federal Communications Commission. *Notice of Proposed Rulemaking*. CC Docket No. 84-800, August 13, 1984.

IBES *Monthly Summary Book*. New York: Lynch, Jones & Ryan, various issues.

Maddala, G. E. *Econometrics*. New York: McGraw-Hill Book Company, 1977.

Malkiel, B. G. "The Valuation of Public Utility Equities." *Bell Journal of Economics and Management Science*, Spring 1970, pp. 143-160.

Peterson, D., and P. Peterson. "The Effect of Changing Expectations upon Stock Returns." *Journal of Financial and Quantitative Analysis*, September 1982, pp. 799-813.

Theil, H. *Principles of Econometrics*. New York: John Wiley & Sons, 1971.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, Chairman
BOB STUMP
PAUL NEWMAN
SANDRA D. KENNEDY
BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF ARIZONA -AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS AGUA FRIA WATER DISTRICT, HAVASU WATER DISTRICT AND MOHAVE WATER DISTRICT	DOCKET NO. W-01303A-10-0448

REJOINDER TESTIMONY
OF
GREGORY A. BARBER
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
DATED AUGUST 9, 2011

REJOINDER TESTIMONY
OF
GREGORY A. BARBER
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
AUGUST 9, 2011

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EXECUTIVE SUMMARY

Mr. Barber responds to the surrebuttal testimony of RUCO witness Rodney Moore and describes the financial impact of RUCO's proposed disallowance of fifty percent of the cost of the White Tanks Plant from rate base and fifty percent of the deferred debits associated with the proposed fifty percent disallowance.

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. Gregory A. Barber, 2355 West Pinnacle Peak Rd., Phoenix, AZ 85027.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I hold the position of Director, Finance for Arizona-American Water Company (the "Company").

Q. WHAT ARE YOUR RESPONSIBILITIES AS DIRECTOR, FINANCE?

A. In this position, I am responsible for leading the finance, accounting, budgeting and rate administration functions within the Company.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I graduated from the University of New Mexico in 1980 with a Bachelor of Business and Administration Degree in Accounting and Financial Management. I am a Certified Public Accountant (CPA).

Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE.

A. I have more than thirty years of accounting and financial management experience. I joined the Company in August 2010.

My utility experience began in 2008 when I joined Global Water Resources in Phoenix, AZ. While at Global Water Resources, I was a Senior Vice President and Chief Financial Officer.

I am a member of the American Institute of Certified Public Accountants and the Arizona Society of Certified Public Accountants.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. To respond to and explain the impact on the Company of Mr. Moore's proposed RUCO Surrebuttal Rate Base Adjustment No. 7 – White Tanks Regional Water Treatment Plant – Agua Fria ONLY disallowing rate base treatment of a portion of the White Tanks plant and RUCO Surrebuttal Rate Base Adjustment No. 9 – Deferred Debits for White Tanks Regional Water Treatment Plant – Agua Fria ONLY disallowing rate base treatment of a portion of the deferred debits associated with the White Tanks plant filed on behalf of the RUCO.

II RESPONSE TO RUCO

Q. HAVE YOU REVIEWED MR. MOORE'S PROPOSED ADJUSTMENTS?

A. Yes. Mr. Moore has proposed several adjustments to rate base. My testimony will explain the impact to the Company of RUCO Surrebuttal Rate Base Adjustment No. 7 – White Tanks Regional Water Treatment Plant – Agua Fria ONLY and RUCO Surrebuttal Rate Base Adjustment No. 9 – Deferred Debits for White Tanks Regional Water Treatment Plant – Agua Fria ONLY.

In RUCO Surrebuttal Rate Base Adjustment No. 7 – White Tanks Regional Water Treatment Plant – Agua Fria ONLY Mr. Moore is proposing to disallow 50 percent of the cost of the White Tanks plant and exclude it from the Company's rate base. This adjustment will reduce the Agua Fria adjusted test year rate base by ($33,572,349), which is made up of a ($33,662,500) reduction of the original cost of the White Tanks $67,325,000 plant, partially offset by a $90,151 reduction of the deferred depreciation expense related to the White Tanks plant.

In RUCO Surrebuttal Rate Base Adjustment No. 9 – Deferred Debits for White Tanks Regional Water Treatment Plant – Agua Fria ONLY Mr. Moore is proposing to disallow 50 percent of the deferred debits associated with the 50 percent disallowance of the

White Tanks plant and exclude it from the Company's rate base. This adjustment will reduce the Agua Fria adjusted test year rate base by ($5,433,698).

Mr. Moore's adjustments would immediately remove 50% of the White Tanks plant and related costs from the Company's current rate base and it does not allow the Company to earn a return on and of its investment of this portion of the White Tanks plant and related costs.

Q. CAN YOU DESCRIBE THE ACCOUNTING STANDARDS APPLICABLE TO MR. MOORE'S ADJUSTMENTS?

A. Yes. The adjustments, as mentioned by Mr. Moore, would be subject to applicable accounting guidance including the ASC Topic 980, specifically section 360 of ASC Topic 980 pertaining to Plant Disallowances.

The Company is a regulated operation and does not have the option or election to avoid ASC Topic 980. ASC Topic 980-10-15-2 states this guidance must be applied to general-purpose external financial statements of an entity that has regulated operations if all of the following criteria are met:

- The entity's rates for regulated services or products provided to its customers are established by or are subject to approval by an independent, third-party regulator or by its own governing board empowered by statute or contract to establish rates that bind customers.
- The regulated rates are designed to recover the specific entity's costs of providing the regulated services or products.

CONFIDENTIAL - SUBJECT TO PROTECTIVE AGREEMENT
IN DOCKET NO. W-01303A-10-0448

- In view of the demand for the regulated services or products and the level of competition, direct and indirect, it is reasonable to assume that rates set at levels that will recover the entity's costs can be charged to and collected from customers. This criterion requires consideration of anticipated changes in levels of demand or competition during the recovery period for any capitalized costs.

- ASC 980-360-35-12 provides guidance on cost disallowances. When it becomes probable that part of the cost of a recently completed plant will be disallowed for rate-making purposes and a reasonable estimate of the amount of the disallowance can be made, the estimated amount of the probable disallowance shall be deducted from the reported cost of the plant and recognized as a loss. If part of the cost is explicitly, but indirectly, disallowed (for example, by an explicit disallowance of return on investment on a portion of the plant), an equivalent amount of cost shall be deducted from the reported cost of the plant and recognized as a loss.

Q. WHAT WILL BE THE ACCOUNTING AND FINANCIAL IMPACT OF MR. MOORE'S ADJUSTMENTS UNDER THESE APPLICABLE ACCOUNTING STANDARDS?

A. As described earlier, Mr. Moore's testimony does not allow the Company to earn a return on and of its investment and in fact, Mr. Moore's plan calls for a plant disallowance.

BEGIN CONFIDENTIAL:

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END CONFIDENTIAL

Q **DOES THIS CONCLUDE YOUR REJOINDER TESTIMONY?**

A Yes, it does.

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IN DOCKET NO. W-01303A-10-0448

BEGIN CONFIDENTIAL:

END CONFIDENTIAL

Arizona American Water Company - Agua Fria Water
Test Year Ended June 30, 2010
Computation of Increase in Gross Revenue Requirement

Exhibit
Schedule A-1 Rejoinder
Page 1
Witness: Broderick

Line No.					
1	Original Cost Rate Base			$ 133,936,666	
2					
3	Adjusted Operating Income			$ 420,976	
4					
5	Current Rate of Return			0.31%	
6					
7	Required Operating Income			$ 11,116,743	
8					
9	Required Rate of Return			8.30%	
10					
11	Operating Income Deficiency			$ 10,695,767	
12					
13	Gross Revenue Conversion Factor			1.6609	
14					
15	Increase in Gross Revenue				
16	Requirement			$ 17,764,746	
17					
18	Customer	Present	Proposed	Dollar	Percent
19	Classification	Rates	Rates	Increase	Increase
20					
21	Residential	$ 17,076,546	$ 29,231,963	$12,155,417	71.2%
22	Commercial	5,082,364	$ 3,878,415	(1,203,949)	-23.7%
23	Sale for Resale	340,347	$ 624,816	284,469	83.6%
24	Misc Irrigation Sales	335,298	$ 7,046,954	6,711,656	2001.7%
25	Private Fire	150,222	$ 302,496	152,273	101.4%
26					
27	Total Water Revenues	$22,984,778	$41,084,644	$ 18,099,866 [1]	78.7%
28					
29	Other Revenues	-	-	-	0.0%
30					
31	Total Revenues	$22,984,778	$41,084,644	$ 18,099,866	78.7%
32					
33	Total TY Adj Rev from C-2	-	-	17,764,746	
34	Over / (Under)	22,984,778	41,084,644	335,120 [2]	
35					
36					

37 [1] Total Water Revenue increase is greater than the Increase in Gross Revenue Requirement (Line 16) b/c of a pro forma
38 shift of customers from Residential and Commercial classes to an Irrigation class, which produced a revenue shortfall
39 in Present Rate terms that necessitated a compensatory adjustment to Proposed Rates. Please see the Direct
40 Testimony of Company witness Miles H. Kiger for a detailed explanation of this revenue adjustment.
41
42 [2] This figure reflects the revenue shortfall due to the Irrigation customers pro forma, as referenced in Note 1 above.
43
44
45
46 Supporting Schedules:
47 B-1 Rejoinder
48 C-1 Rejoinder
49 H-1
50 \10 Agua Fria Water\Schedules\2010 Revised Agua Fria Water Sch. A-F.xls

Arizona American Water Company - Agua Fria Water
Test Year Ended June 30, 2010
Summary of Fair Value Rate Base

Exhibit
Schedule B-1 Rejoinder
Page 1
Witness: Murrey

Line No.		Original Cost Rate Base
1		
2	Gross Utility Plant in Service	$ 317,368,221
3		
4	Less:	
5		
6	Accumulated Depreciation	34,788,731
7		
8	Net Utility Plant in Service	$ 282,579,490
9		
10	Less:	
11	Advances in Aid of	
12	Construction	$ 121,316,290
13	Contributions in Aid of	
14	Construction - Net of Amortization	43,300,980
15	Imputed Regulatory Advances	-
16	Imputed Regulatory Contributions	-
17	Customer Meter Deposits	6,545
18	Deferred Income Taxes & Credits	(313,876)
19	Investment tax Credits	-
20	Plus:	-
21	Unamortized Finance	-
22	Charges	-
23	Deferred Debits	14,728,823
24	Allowance for Working Capital	938,292
25	Utility Plant Acquisition Adjustment	-
26		
27	Total Rate Base	$ 133,936,666
28		
29		
30		
31		
32		
33		
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39		
40		
41	Supporting Schedules:	Recap Schedules:
42	B-2 Rejoinder	A-1 Rejoinder
43	B-5 Rejoinder	
44	B-3	
45	E-1	
46		
47		
48		
49		
50	\10 Agua Fria Water\Schedules\2010 Revised Agua Fria Water Sch. A-F.xls	

Arizona American Water Company - Agua Fria Water
Test Year Ended June 30, 2010
Original Cost Rate Base Pro Forma Adjustments

Exhibit
Schedule B-2 Rejoinder
Page 1
Witness: Murrey

Line No.		Company Rejoinder [A] Rebuttal Adjusted End of Test Year	[B] ADJ SLM-1RJ (Sched B-5 Rej) Working Cash	[C] ADJ SLM-2RJ Correct SLM-4R	[D] Total Rejoinder Pro Forma Adjustments	[E] Rejoinder Adjusted End of Test Year
1	Gross Utility					
2	Plant in Service	$ 317,468,221		$ (100,000)	$ (100,000)	$ 317,368,221
3		-			-	-
4	**Less:**	-			-	-
5		-			-	-
6	Accumulated Depreciation	34,788,731			-	34,788,731
7						
8	Net Utility Plant					
9	in Service	$ 282,679,490	$ -	$ (100,000)	$ (100,000)	$ 282,579,490
10						
11	**Less:**					
12	Advances in Aid of					
13	Construction	121,316,290			-	121,316,290
14	Contributions in Aid of	-			-	-
15	Construction - Net	43,300,980			-	43,300,980
16	Imputed Regulatory Advances	-			-	-
17	Imputed Regulatory Contributions	-			-	-
18	Customer Meter Deposits	6,545			-	6,545
19	Deferred Income Taxes	(313,876)			-	(313,876)
20	Investment Tax Credits	-			-	-
21		-			-	-
22		-			-	-
23	**Plus:**	-			-	-
24	Deferred Debits	14,728,823			-	14,728,823
25	Working capital	994,209	(55,917)		(55,917)	938,292
26	Utility Plant Acquisition Adjustment	-			-	-
27						
28	Total	$ 134,092,583	$ (55,917)	$ (100,000)	$ (155,917)	$ 133,936,666
29						
30						
31						
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34						
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37						
38	Supporting Schedules:					
39	B-5 Rejoinder					
40	E-1					
41	\Work Papers\Rate Base\UPIS Agua Fria Water 10.xls					
42	\Work Papers\Rate Base\Revised DEP Agua Fria Water 10				Recap Schedules:	
43	\Common\Rate Base\Workpapers\UPIS Corporate 10.xls				B-1 Rejoinder	
44	\Common\Rate Base\Workpapers\\Revised DEP Corporate					
45	\Workpapers\CWIP Balances AZ Report 6-30-10.xls					
46						
47						
48						
49						
50	\10 Agua Fria Water\Schedules\2010 Revised Agua Fria Wa					

Arizona American Water Company - Agua Fria Water
Test Year Ended June 30, 2010
Rate Base Rejoinder Adjustment SLM-2RJ

Exhibit
Schedule B-2 Rejoinder
Page 2
Witness: Murrey

Line No.		
1	In Rebuttal, the Company accepted Staff adjustment RB ADJ#6 for plant not supported.	
2	Company had listed this adjustment at ($492,423) rather than ($592,423).	
3	This typographical error is corrected by the rejoinder adjustment listed below.	
4		
5		
6		
7		
8		
9		
10		
11		
12	Company Rebuttal Adjustment SLM-4R	$ (492,423)
13		
14	Staff ADJ#6 per Schedule GWB - 6D	$ (592,423)
15		
16	Increase/ (Decrease) to plant in service	$ (100,000)
17		
18		
19	Adjustment to Rate Base	$ (100,000)
20		
21		
22		
23		
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45	Workpapers & Supporting Documents:	
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50		

Arizona American Water Company - Agua Fria Water
Test Year Ended June 30, 2010
Computation of Working Capital

Exhibit
Schedule B-5 Rejoinder
Page 1
Witness: Murrey

Line No.		
1		
2	Working Cash Requirement	$ (252,580)
3	Material and Supplies Inventories	234,656 [1]
4	Prepayments	956,216
5		
6		
7	Total Working Capital Allowance	$ 938,292
8		
9	Less Company Amount in Rebuttal Filing	$ 994,209
10		
11	Decrease to Rate Base	$ (55,917)
12		
13		
14		
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42		
43	Supporting Schedules:	Recap Schedules:
44	E-1	*B-1 Rejoinder*
45	Workpapers & Supporting Documents:	
46	[1]Thirteen-month average	
47		
48		
49		
50	\10 Agua Fria Water\Schedules\2010 Revised Agua Fria Water Sch. A-F.xls	

Arizona American Water Company
Test Year Ended June 30, 2010
Lead/Lag Study - Working Cash Requirement

Exhibit
Schedule B-6 Rejoinder
Page 1
Witness: Murrey

AGUA FRIA WATER

Line No.		JUNE 2010 Test Year Adjusted Results	Revenue Lag Days	Expense Lag Days	Net Lag Days	Lead/ Lag Factor	Cash Working Capital Required
1	OPERATING EXPENSES						
2	**P08** Labor	$ 2,520,560	47.90683	12.0000	35.9068	0.0984	$ 247,960
3	**P09** Purchased Water	$ 1,841,490	47.90683	86.8700	(38.9632)	(0.1067)	(196,576)
4	**P10** Fuel & Power	$ 1,923,299	47.90683	32.4200	15.4868	0.0424	81,605
5	**P11** Chemicals	$ 833,226	47.90683	28.4700	19.4368	0.0533	44,371
6	**P12** Waste Disposal	$ 9,540	47.90683	30.0000	30.0000	0.0822	784
7	**P13** Management Fees	$ 3,354,256	47.90683	18.1600	29.7468	0.0815	273,366
8	**P14** Group Insurance	$ 697,563	47.90683	(4.6445)	52.5513	0.1440	100,432
9	**P15** Pensions	$ 539,270	47.90683	45.0000	2.9068	0.0080	4,295
10	**P17** Insurance Other Than Group	$ 199,121	47.90683	45.0000	2.9068	0.0080	1,586
11	**P18** Customer Accounting	$ 498,533	47.90683	7.4600	40.4468	0.1108	55,244
12	**P19** Rents	$ 98,736	47.90683	(10.6818)	58.5886	0.1605	15,849
13	**P27-** Depreciation & Amortization			-	-	-	-
14	Other Operating Expenses[1]	2,009,116	47.90683	30.0000	17.9068	0.0491	98,567
15	TAXES						
16	**P29** Taxes Other than Income	209,976	47.90683	15.6511	32.2557	0.0884	18,556
17	**P29** Property Taxes	897,070	47.90683	212.5000	(164.5932)	(0.4509)	(404,525)
18	**P30-** Income Tax[2]	4,386,674	47.90683	42.0402	5.8667	0.0161	70,507
19							
20	**P56-** Interest	4,138,643	47.90683	106.5200	(58.6132)	(0.1606)	(664,600)
21							
22							
23							
24							
25							
26							
27	WORKING CASH REQUIREMENT	$ 24,157,073					$ (252,580)
28							
29							

30 [1]All other Operating Expenses are assumed to be paid by the 15th of the month following the receipt of goods and services.

31 [2]At proposed rates.

Arizona American Water Company - Agua Fria Water
Test Year Ended June 30, 2010
Adjusted Test Year Income Statement

Exhibit
Schedule C-1 Rejoinder
Page 1
Witness: Kiger

Line No.		[A] Test Year Rebuttal Results	[B] Total Pro Forma Adjustments	[C] Test Year Rejoinder Results	[D] Proposed Rate Increase	[E] Adjusted with Rate Increase
1	**Revenues**					
2	Water Revenues	$ 22,847,141	$ -	$ 22,847,141	$ 17,764,746	$ 40,611,887
3	Other Revenues	1,244,463	-	1,244,463		1,244,463
4						
5		$ 24,091,603	$ -	$ 24,091,603	$ 17,764,746	$ 41,856,350
6	**Operating Expenses**					
7	Labor	$ 2,520,560	$ -	$ 2,520,560		$ 2,520,560
8	Purchased Water	1,841,490	-	1,841,490		1,841,490
9	Fuel & Power	1,923,299	-	1,923,299		1,923,299
10	Chemicals	833,226	-	833,226		833,226
11	Waste Disposal	9,540	-	9,540		9,540
12	Management Fees	3,354,256	-	3,354,256		3,354,256
13	Group Insurance	697,563	-	697,563		697,563
14	Pensions	539,270	-	539,270		539,270
15	Regulatory Expense	126,763	-	126,763		126,763
16	Insurance Other Than Group	199,121	-	199,121		199,121
17	Customer Accounting	498,533	-	498,533	125,241	623,774
18	Rents	98,736	-	98,736		98,736
19	General Office Expense	193,302	-	193,302		193,302
20	Miscellaneous	1,164,292	-	1,164,292		1,164,292
21	Maintenance Expense	651,522	-	651,522		651,522
22	Depreciation & Amortization	10,249,163	-	10,249,163		10,249,163
23	General Taxes-Property	897,070	-	897,070	220,013	1,117,083
24	General Taxes-Other	209,976	-	209,976		209,976
25	Income Taxes	(2,338,914)	1,860	(2,337,055)	6,723,729	4,386,674
26						
27	**Total Operating Expenses**	$ 23,668,767	$ 1,860	$ 23,670,627	$ 7,068,983	$ 30,739,610
28	**Utility Operating Income**	$ 422,836	$ (1,860)	$ 420,976	$ 10,695,763	$ 11,116,739
29	**Other Income & Deductions**					
30	Other Income & Deductions	$ -	$ -	$ -		$ -
31	Interest Expense	4,143,461	(4,818)	4,138,643		4,138,643
32	Other Expense	120,234	-	120,234		120,234
33	Gain/Loss Sale of Fixed Assets	-	-	-		-
34	**Total Other Income & Deductions**	$ (4,263,695)	$ 4,818	$ (4,258,877)	$ -	$ (4,258,877)
35	**Net Profit (Loss)**	$ (3,840,859)	$ 2,958	$ (3,837,901)	$ 10,695,763	$ 6,857,862
36						
37						
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40						
41						
42						
43						
44	Supporting Schedules:				Recap Schedules:	
45	E-2				A-1 Rejoinder	
46	C-2 Rejoinder					
47						
48						
49						
50	\10 Agua Fria Water\Schedules\2010 Revised Agua Fria Water Sch. A-F.xls					

Arizona American Water Company - Agua Fria Wate
Test Year Ended June 30, 2010
Income Statement Pro Forma Adjustments

Exhibit
Schedule C-2 Rejoinder
Page 1
Witness: Kiger

Line No.			COMPANY REJOINDER [A] Test Year Adjusted Rebuttal Results	[B] ADJ MHK-3RJ Annualize Property Taxes	[C] ADJ SLM-1RJ Federal and State Income Taxes	[D] ADJ SLM-2RJ Interest Synchronization	[E] Total Pro Forma Adjustments	[F] Test Year Adjusted Rejoinder Results	[G] Proposed Rate Increase	[H] Adjusted with Rate Increase
1	**Revenues**									
2	**P02**	Water Revenues	$ 22,847,141				$ -	$ 22,847,141	$ 17,764,746	$ 40,611,887
3	**P04**	Other Revenues	1,244,463				-	1,244,463		1,244,463
4										-
5			$ 24,091,603	$ -	$ -	$ -	$ -	$ 24,091,603	$ 17,764,746	$ 41,856,350
6	**Operating Expenses**									
7	**P08**	Labor	$ 2,520,560				$ -	$ 2,520,560		$ 2,520,560
8	**P09**	Purchased Water	1,841,490				-	1,841,490		1,841,490
9	**P10**	Fuel & Power	1,923,299				-	1,923,299		1,923,299
10	**P11**	Chemicals	833,226				-	833,226		833,226
11	**P12**	Waste Disposal	9,540				-	9,540		9,540
12	**P13**	Management Fees	3,354,256				-	3,354,256		3,354,256
13	**P14**	Group Insurance	697,563				-	697,563		697,563
14	**P15**	Pensions	539,270				-	539,270		539,270
15	**P16**	Regulatory Expense	126,763				-	126,763		126,763
16	**P17**	Insurance Other Than Group	199,121				-	199,121		199,121
17	**P18**	Customer Accounting	498,533				-	498,533	125,241	623,774
18	**P19**	Rents	98,736				-	98,736		98,736
19	**P20**	General Office Expense	193,302				-	193,302		193,302
20	**P21**	Miscellaneous	1,164,292				-	1,164,292		1,164,292
21	**P25**	Maintenance Expense	651,522				-	651,522		651,522
22	**P27-28**	Depreciation & Amortization	10,249,163				-	10,249,163		10,249,163
23	**P29**	General Taxes-Property	897,070	-			-	897,070	220,013	1,117,083
24	**P29**	General Taxes-Other	209,976				-	209,976		209,976
25	**P30-31**	Income Taxes	(2,338,914)		1,860		1,860	(2,337,055)	6,723,729	4,386,674
26										
27	**Total Operating Expenses**		$ 23,668,767	$ -	$ 1,860	$ -	$ 1,860	$ 23,670,627	$ 7,068,983	$ 30,739,610
28	**Utility Operating Income**		$ 422,836	$ -	$ (1,860)	$ -	$ (1,860)	$ 420,976	$ 10,695,763	$ 11,116,739
29	**Other Income & Deductions**									
30	**P39-42**	Other Income & Deductions	$ -				$ -	$ -		$ -
31	**P56-60**	Interest Expense	4,143,461			(4,818)	(4,818)	4,138,643		4,138,643
32	**P48-51**	Other Expense	120,234				-	120,234		120,234
33	**P43**	Gain/Loss Sale of Fixed Assets	-					-		-
34	**Total Other Income & Deductions**		$ (4,263,695)	$ -	$ -	$ 4,818	$ 4,818	$ (4,258,877)	$ -	$ (4,258,877)
35	**Net Profit (Loss)**		$ (3,840,859)	$ -	$ (1,860)	$ 4,818	$ 2,958	$ (3,837,901)	$ 10,695,763	$ 6,857,862
36										
37										
38										
39										
40										
41										
42										
43	Supporting Schedules:									
44										
45	Workpapers & Supporting Documents:									
46	\10 Agua Fria Water\Schedules\2010 Revised A									
47	\10 Agua Fria Water\Workpapers\Agua Fria Wa									
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49										
50										

Recap Schedules:
C-1 Rejoinder

Arizona American Water Company - Agua Fria Water
Test Year Ended June 30, 2010
Income Statement Rejoinder Adjustment MHK-3RJ

Exhibit
Schedule C-2 Rejoinder
Page 2
Witness: Kiger

Line No.		[A] Property Tax Expense	[B] Property Tax Expense For Conversion Factor
1			
2	Adjust Property Taxes to Reflect Proposed Revenues:		
3			
4	Adjusted Revenues in Year Ended June 2010	$ 24,091,603	$ 24,091,603
5	Adjusted Revenues in Year Ended June 2010	24,091,603	24,091,603
6	Proposed Revenues	24,091,603	41,856,350
7	Average of Three Year's of Revenue	$ 24,091,603	$ 30,013,185
8	Average of Three Year's of Revenue, times 2	$48,183,207	$60,026,371
9	Add:		
10	Construction Work in Progress at 10%	105,463	105,463
11	Deduct:		
12	Net Book Value of Transportation Equipment	$ -	$ -
13			
14	Full Cash Value	$ 48,288,670	$ 60,131,834
15	Assessment Ratio (For 2011 per HB 2784)	20%	20%
16	Assessed Value	$ 9,657,734	$ 12,026,367
17	Property Tax Rate	9.29%	9.29%
18			
19	Property Tax	897,070	1,117,083
20	Tax on Parcels	-	-
21			
22	Adjusted Test Year Property Taxes at Present Rates (Line 18+Line 19, Col [A])	$ 897,070	
23	Adjusted Test Year Property Taxes	897,070	
24	Adjustment to Revenue and/or Expense (To Sch C-2, Col [AA])	$ -	
25			
26	Adjusted Test Year Property Taxes at Proposed Rates (Line 18+Line 19, Col [B])		$ 1,117,083
27	Adjusted Test Year Property Taxes at Present Rates (Line 21, Col [A])		897,070
28	Additional Property Taxes on Proposed Revenues (To Sch C-2, Col [AH])		$ 220,013
29			
30			
31			
32	CALCULATION OF PROPERTY TAX FACTOR TO COMPUTE GROSS REVENUE CONVERSION FACTOR (SCH C-3):		
33			
34	Increase in Property Tax Due to Increase in Revenue Requirement (Line 27, Col [B])		$ 220,013
35			
36	Increase in Revenue Requirement (From Sch. A1)		$ 17,764,746
37			
38	Increase in Property Tax Per Dollar Increase in Revenue (Line 33/Line 35)		1.24%
39			
40			
41			
42			
43			
44	Workpapers & Supporting Documents:		
45			
46			
47			
48			
49			
50	\10 Agua Fria Water\Schedules\2010 Revised Agua Fria Water Sch. A-F.xls		

Arizona American Water Company - Agua Fria Water
Test Year Ended June 30, 2010
Income Statement Rejoinder Adjustment SLM-1RJ

Exhibit
Schedule C-2 Rejoinder
Page 3
Witness: Murrey

Line No.			Test Year Adjusted Results	Adjusted with Rate Increase
1				
2	Calculation of Income Taxes at Proposed Rates			
3				
4				
5	Operating Income Before Inc. Taxes		$ (1,916,078)	$ 15,503,414
6	Interest Expense		4,138,643	4,138,643
7	Arizona Taxable Income		$ (6,054,721)	$ 11,364,771
8				
9	Less Arizona Income Tax		$ (421,893)	$ 791,897
10	Arizona Income Tax Rate =	6.968%		
11				
12	Federal Income Before Taxes		$ (6,054,721)	$ 11,364,771
13	Less Arizona Income Taxes		(421,893)	791,897
14	Federal Taxable Income		$ (5,632,828)	$ 10,572,873
15				
23	Federal Income Taxes	34.000%	$ (1,915,162)	$ 3,594,777
24				
25				
26	Total Income Tax		$ (2,337,055)	$ 4,386,674
27				
28	Tax Rate		38.60%	38.60%
29				
30	Effective Income Tax Rates			
31	State		6.968%	6.968%
32	Federal		31.63%	31.63%
33				
34				
35	Test Year Income Taxes, Per Books		$ (2,338,914)	
36	Increase in Income Taxes		$ 1,860	
37				
38	Adjustment to Revenues and/or Expense		$ 1,860	
39				
40	Test Year Income Taxes, Adjusted			$ (2,337,055)
41	Increase in Income Taxes			6,723,729
42				
43	Adjustment to Revenue and/or Expense			$ 6,723,729
44				
45				
46				
47				
48				
49	Workpapers & Supporting Documents:			
50	\10 Agua Fria Water\Schedules\2010 Revised Agua Fria Water Sch. A-F.xls			

Arizona American Water Company - Agua Fria Water
Test Year Ended June 30, 2010
Income Statement Rejoinder Adjustment SLM-2RJ

Exhibit
Schedule C-2 Rejoinder
Page 4
Witness: Murrey

Line No.			
1			
2	Interest Synchronization with Rate Base		
3			
4	Original Cost Rate Base (Sch. B-1, Ln. 24)		$ 133,936,666
5	Weighted Cost of Debt from Schedule D-1		3.09%
6	Synchronized Interest Expense		$ 4,138,643
7			
8	Test Year Interest Expense	$ 4,143,461	
9			
10	Adjusted Test Year Interest Expense		$ 4,143,461
11			
12	Increase/(Decrease) in Interest Expense		$ (4,818)
13			
14	Adjustment to Revenue and/or Expense		$ (4,818)
15			
16			
17			
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46	Workpapers & Supporting Documents:		
47			
48			
49			
50	\10 Agua Fria Water\Schedules\2010 Revised Agua Fria Water Sch. A-F.xls		

Arizona American Water Company - Agua Fria Water
Test Year Ended June 30, 2010
Computation of Gross Revenue Conversion Factor

Exhibit
Schedule C-3 Rejoinder
Page 1
Witness: Kiger

Line No.	Description					Percentage of Incremental Gross Revenues
1	Federal Income Taxes					31.63%
2						
3	State Income Taxes					6.97%
4				Combined	38.60%	
5	Property Taxes	Effective Rate =	1.24%	One Minus Combined	61.40%	0.76%
6						
7	Bad Debt Expense	Effective Rate =	0.705%	One Minus Combined	61.40%	0.43%
8						
9	Total Tax Percentage					39.79%
10						
11	Operating Income % = 100% - Tax Percentage					60.21%
12						
13						
14						
15	1 = Gross Revenue Conversion Factor					
16	Operating Income %					1.6609
17						
18						
19						
20						
21						
22						
23						
24						
25						
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27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
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41						
42						
43	Supporting Schedules:				Recap Schedules:	
44					A-1 Rejoinder	
45						
46						
47						
48						
49						
50	\10 Agua Fria Water\Schedules\2010 Revised Agua Fria Water Sch. A-F.xls					

Arizona American Water Company - Havasu Water
Test Year Ended June 30, 2010
Computation of Increase in Gross Revenue Requirement

Exhibit
Schedule A-1 Rejoinder
Page 1
Witness: Broderick

Line No.					
1	Original Cost Rate Base			$ 3,587,296	
2					
3	Adjusted Operating Income			$ (148,829)	
4					
5	Current Rate of Return			-4.15%	
6					
7	Required Operating Income			$ 297,746	
8					
9	Required Rate of Return			8.30%	
10					
11	Operating Income Deficiency			$ 446,575	
12					
13	Gross Revenue Conversion Factor			1.6666	
14					
15	Increase in Gross Revenue				
16	Requirement			$ 744,250	
17					
18	Customer	Present	Proposed	Dollar	Percent
19	Classification	Rates	Rates	Increase	Increase
20					
21	Residential	$ 1,083,633	$ 1,625,449	$541,816	50.0%
22	Commercial	191,261	$ 246,305	55,044	28.8%
23	Irrigation	-	$ 37,387	37,387	0.0%
24					
25					
26					
27	Total Water Revenues	$ 1,274,894	$1,909,141	$ 634,247 [1]	49.7%
28					
29	Other Revenues	-	-	-	0.0%
30					
31	Total Water Revenues	$1,274,894	$1,909,141	$ 634,247	49.7%
32					
33	Total TY Adj Rev from C-2	-	-	744,250	
34	Over / (Under)	1,274,894	1,909,141	(110,004) [2]	
35					
36					

37 [1] Total Water Revenue increase is greater than the Increase in Gross Revenue Requirement (Line 16) b/c of a pro forma
38 shift of customers from Residential and Commercial classes to an Irrigation class, which produced a revenue shortfall
39 in Present Rate terms that necessitated a compensatory adjustment to Proposed Rates. Please see the Direct
40 Testimony of Company witness Miles H. Kiger for a detailed explanation of this revenue adjustment.
41
42 [2] This figure reflects the revenue shortfall due to the Irrigation customers pro forma, as referenced in Note 1 above.
43
44
45
46 Supporting Schedules:
47 B-1 Rejoinder
48 C-1 Rejoinder
49 H-1
50 \Schedules\2010 Revised Havasu Water Sch. A-F.xls\

Arizona American Water Company - Havasu Water
Test Year Ended June 30, 2010
Summary of Fair Value Rate Base

Exhibit
Schedule B-1 Rejoinder
Page 1
Witness: Murrey

Line No.		Original Cost Rate Base
1		
2	Gross Utility Plant in Service	$ 9,170,132
3		
4	Less:	
5		
6	Accumulated Depreciation	2,087,826
7		
8	Net Utility Plant in Service	$ 7,082,305
9		
10	Less:	
11	Advances in Aid of	
12	Construction	$ 2,475,876
13	Contributions in Aid of	
14	Construction - Net of Amortization	1,238,132
15	Imputed Regulatory Advances	-
16	Imputed Regulatory Contributions	-
17	Customer Meter Deposits	(38)
18	Deferred Income Taxes & Credits	(13,719)
19	Investment tax Credits	-
20	Plus:	-
21	Unamortized Finance	-
22	Charges	-
23	Deferred Debits	103,658
24	Allowance for Working Capital	101,584
25	Utility Plant Acquisition Adjustment	-
26		
27	Total Rate Base	$ 3,587,296
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
41	Supporting Schedules:	Recap Schedules:
42	B-2 Rejoinder	A-1 Rejoinder
43	B-5 Rejoinder	
44	E-1	
45		
46		
47		
48		
49		
50	\Schedules\2010 Revised Havasu Water Sch. A-F.xls\	

Arizona American Water Company - Havasu Water
Test Year Ended June 30, 2010
Original Cost Rate Base Pro Forma Adjustments

Exhibit
Schedule B-2 Rejoinder
Page 1
Witness: Murrey

Line No.		Company Rejoinder [A] Rebuttal Adjusted End of Test Year	[B] ADJ SLM-1RJ (Sched B-5 Rej) Working Capital	[C] Total Rejoinder Pro Forma Adjustments	[D] Rejoinder Adjusted End of Test Year
1	Gross Utility				
2	Plant in Service	$ 9,170,132		$ -	$ 9,170,132
3		-		-	-
4	**Less:**	-		-	-
5		-		-	-
6	Accumulated Depreciation	2,087,826		-	2,087,826
7					
8	Net Utility Plant				
9	in Service	$ 7,082,305	$ -	$ -	$ 7,082,305
10					
11	**Less:**				
12	Advances in Aid of				
13	Construction	2,475,876		-	2,475,876
14	Contributions in Aid of	-		-	-
15	Construction - Net	1,238,132		-	1,238,132
16	Imputed Regulatory Advances	-		-	-
17	Imputed Regulatory Contributions	-		-	-
18	Customer Meter Deposits	(38)		-	(38)
19	Deferred Income Taxes	(13,719)		-	(13,719)
20	Investment Tax Credits	-		-	-
21		-		-	-
22		-		-	-
23	**Plus:**	-		-	-
24	Deferred Debits	103,658		-	103,658
25	Working capital	102,483	(899)	(899)	101,584
26	Utility Plant Acquisition Adjustment	-		-	-
27					
28	Total	$ 3,588,195	$ (899)	$ (899)	$ 3,587,296
29					
30					
31					
32					
33					
34					
35					
36					
37					
38	Supporting Schedules:				Recap Schedules:
39	B-5 Rejoinder				B-1 Rejoinder
40	E-1				
41	\Work Papers\Rate Base\UPIS Havasu Water 10.xls				
42	\Work Papers\Rate Base\Revised DEP Havasu Water 10.xls				
43	\Common\Rate Base\Workpapers\UPIS Corporate 10.xls				
44	\Common\Rate Base\Workpapers\Revised DEP Corporate 1(				
45	\Workpapers\CWIP Balances AZ Report 6-30-10.xls				
46					
47					
48					
49					
50	\Schedules\2010 Revised Havasu Water Sch. A-F.xls\				

Arizona American Water Company - Havasu Water
Test Year Ended June 30, 2010
Computation of Working Capital

Exhibit
Schedule B-5 Rejoinder
Page 1
Witness: Murrey

Company Rejoinder		
Line No.		
1		
2	Working Cash Requirement	$ 57,558
3	Material and Supplies Inventories	16,308 [1]
4	Prepayments	27,718
5		
6		
7	Total Working Capital Allowance	$ 101,584
8		
9	Less Company amount in Rebuttal Filing	$ 102,483
10		
11	Decrease to Rate Base	$ (899)
12		
13		
14		
15		
16		
17		
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19		
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21		
22		
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42		
43	Supporting Schedules:	Recap Schedules:
44	E-1	B-1 Rejoinder
45	Workpapers & Supporting Documents:	
46	[1]Thirteen-month average	
47		
48		
49		
50	\Schedules\2010 Revised Havasu Water Sch. A-F.xls\	

Arizona American Water Company
Test Year Ended June 30, 2010
Lead/Lag Study - Working Cash Requirement

Exhibit
Schedule B-6 Rejoinder
Page 1
Witness: Murrey

HAVASU WATER

Line No.		JUNE 2010 Test Year Adjusted Results	Revenue Lag Days	Expense Lag Days	Net Lag Days	Lead/ Lag Factor	Cash Working Capital Required
1	OPERATING EXPENSES						
2	**P08** Labor	$ 286,977	48.44106	12.0000	36.4411	0.0998	$ 28,651
3	**P09** Purchased Water	$ -	48.44106	86.8700	(38.4289)	(0.1053)	-
4	**P10** Fuel & Power	$ 147,234	48.44106	32.4200	16.0211	0.0439	6,463
5	**P11** Chemicals	$ 195,084	48.44106	28.4700	19.9711	0.0547	10,674
6	**P12** Waste Disposal	$ -	48.44106	30.0000	18.4411	0.0505	-
7	**P13** Management Fees	$ 193,395	48.44106	18.1600	30.2811	0.0830	16,044
8	**P14** Group Insurance	$ 61,153	48.44106	(4.6445)	53.0856	0.1454	8,894
9	**P15** Pensions	$ 62,943	48.44106	45.0000	3.4411	0.0094	593
10	**P17** Insurance Other Than Group	$ 11,481	48.44106	45.0000	3.4411	0.0094	108
11	**P18** Customer Accounting	$ 34,024	48.44106	7.4600	40.9811	0.1123	3,820
12	**P19** Rents	$ 7,103	48.44106	(10.6818)	59.1229	0.1620	1,151
13	**P27-** Depreciation & Amortization		48.44106	-	48.4411	0.1327	-
14	Other Operating Expenses[1]	$ 258,787	48.44106	30.0000	18.4411	0.0505	13,075
15	TAXES						
16	**P29** Taxes Other than Income	$ 23,256	48.44106	15.6511	32.7900	0.0898	2,089
17	**P29** Property Taxes	$ 40,997	48.44106	212.5000	(164.0589)	(0.4495)	(18,427)
18	**P30-** Income Tax[2]	$ 117,491	48.44106	42.0402	6.4009	0.0175	2,060
19							
20	**P56-** Interest	$ 110,847	48.44106	106.5200	(58.0789)	(0.1591)	(17,638)
21							
22							
23							
24							
25							
26	WORKING CASH REQUIREMENT	$ 1,550,773					$ 57,558
27							
28							

29 [1]All other Operating Expenses are assumed to be paid by the 15th of the month following the receipt of goods and services.

30 [2]At proposed rates.

Arizona American Water Company - Havasu Water
Test Year Ended June 30, 2010
Adjusted Test Year Income Statement

Exhibit
Schedule C-1 Rejoinder
Page 1
Witness: Kiger

Line No.		[A] Test Year Adjusted Rebuttal Results	[B] Total Rejoinder Pro Forma Adjustments	[C] Test Year Adjusted Rejoinder Results	[D] Proposed Rate Increase	[E] Adjusted with Rate Increase
1	**Revenues**					
2	Water Revenues	$ 1,249,895	$ -	$ 1,249,895	$ 744,250	$ 1,994,146
3	Other Revenues	16,171	-	16,171	-	$ 16,171
4						
5		$ 1,266,066	$ -	$ 1,266,066	$ 744,250	$ 2,010,317
6	**Operating Expenses**					
7	Labor	$ 286,977	$ -	$ 286,977	-	$ 286,977
8	Purchased Water	-	-	-	-	$ -
9	Fuel & Power	147,234	-	147,234	-	$ 147,234
10	Chemicals	152,171	42,913	195,084	-	$ 195,084
11	Waste Disposal	-	-	-	-	$ -
12	Management Fees	193,395	-	193,395	-	$ 193,395
13	Group Insurance	61,153	-	61,153	-	$ 61,153
14	Pensions	62,943	-	62,943	-	$ 62,943
15	Regulatory Expense	6,985	-	6,985	-	$ 6,985
16	Insurance Other Than Group	11,481	-	11,481	-	$ 11,481
17	Customer Accounting	34,024	-	34,024	8,931	$ 42,955
18	Rents	7,103	-	7,103	-	$ 7,103
19	General Office Expense	26,493	-	26,493	-	$ 26,493
20	Miscellaneous	137,712	-	137,712	-	$ 137,712
21	Maintenance Expense	94,582	-	94,582	-	$ 94,582
22	Depreciation & Amortization	248,718	-	248,718	-	$ 248,718
23	General Taxes-Property	40,997	-	40,997	8,012	$ 49,009
24	General Taxes-Other	23,256	-	23,256	-	$ 23,256
25	Income Taxes	(146,689)	(16,553)	(163,242)	280,732	$ 117,491
26						
27	**Total Operating Expenses**	$ 1,388,536	$ 26,360	$ 1,414,896	$ 297,676	$ 1,712,571
28	**Utility Operating Income**	$ (122,470)	$ (26,360)	$ (148,829)	$ 446,575	$ 297,745
29	**Other Income & Deductions**					
30	Other Income & Deductions	$ -	$ -	$ -	$ -	$ -
31	Interest Expense	110,875	-	110,847	-	110,847
32	Other Expense	6,932	-	6,932	-	6,932
33	Gain/Loss Sale of Fixed Assets	-	-	-	-	-
34	**Total Other Income & Deductions**	$ (117,807)	$ -	$ (117,779)	$ -	$ (117,779)
35	**Net Profit (Loss)**	$ (240,277)	$ (26,360)	$ (266,609)	$ 446,575	$ 179,966
36						
37						
38						
39						
40						
41						
42						
43						
44	Supporting Schedules:			Recap Schedules:		
45	E-2			A-1 Rejoinder		
46	C-2 Rejoinder					
47						
48						
49						
50	\Schedules\2010 Revised Havasu Water Schh. A-F.xls\					

Arizona American Water Company - Havasu Water
Test Year Ended June 30, 2010
Income Statement Pro Forma Adjustments

Exhibit
Schedule C-2 Rejoinder
Page 1
Witness: Kiger

Line No.			[A] Test Year Adjusted Rebuttal Results	[B] ADJ MHK-2RJ Accept Staff #1 Chemicals Adj	[C] ADJ MHK-3RJ Annualize Property Taxes	[D] ADJ SLM-1RJ Federal and State Income Taxes	[E] ADJ SLM-2RJ Interest Synchronization	[F] Total Pro Forma Adjustments	[G] Test Year Adjusted Rejoinder Results	[H] Proposed Rate Increase	[I] Adjusted with Rate Increase
1	**Revenues**										
2	**P02**	Water Revenues	$ 1,249,895					$ -	$ 1,249,895	$ 744,250	$ 1,994,146
3	**P04**	Other Revenues	16,171					-	16,171		16,171
4			-					-	-		-
5			$ 1,266,066	$ -	$ -	$ -	$ -	$ -	$ 1,266,066	$ 744,250	$ 2,010,317
6	**Operating Expenses**										
7	**P08**	Labor	$ 286,977					$ -	$ 286,977		$ 286,977
8	**P09**	Purchased Water	-					-	-		-
9	**P10**	Fuel & Power	147,234					-	147,234		147,234
10	**P11**	Chemicals	152,171	42,913				42,913	195,084		195,084
11	**P12**	Waste Disposal	-					-	-		-
12	**P13**	Management Fees	193,395					-	193,395		193,395
13	**P14**	Group Insurance	61,153					-	61,153		61,153
14	**P15**	Pensions	62,943					-	62,943		62,943
15	**P16**	Regulatory Expense	6,985					-	6,985		6,985
16	**P17**	Insurance Other Than Group	11,481					-	11,481		11,481
17	**P18**	Customer Accounting	34,024					-	34,024	8,931	42,955
18	**P19**	Rents	7,103					-	7,103		7,103
19	**P20**	General Office Expense	26,493					-	26,493		26,493
20	**P21**	Miscellaneous	137,712					-	137,712		137,712
21	**P25**	Maintenance Expense	94,582					-	94,582		94,582
22	**P27-28**	Depreciation & Amortization	248,718					-	248,718		248,718
23	**P29**	General Taxes-Property	40,997		-			-	40,997	8,012	49,009
24	**P29**	General Taxes-Other	23,256					-	23,256		23,256
25	**P30-31**	Income Taxes	(146,689)			(16,553)		(16,553)	(163,242)	280,732	117,491
26											
27	**Total Operating Expenses**		$ 1,388,536	$ 42,913	$ -	$ (16,553)	$ -	$ 26,360	$ 1,414,896	$ 297,676	$ 1,712,571
28	**Utility Operating Income**		$ (122,470)	$ (42,913)	$ -	$ 16,553	$ -	$ (26,360)	$ (148,829)	$ 446,575	$ 297,745
29	**Other Income & Deductions**										
30	**P39-42**	Other Income & Deductions	$ -					$ -	$ -		$ -
31	**P56-60**	Interest Expense	110,875				(28)	(28)	110,847		110,847
32	**P48-51**	Other Expense	6,932					-	6,932		6,932
33	**P43**	Gain/Loss Sale of Fixed Assets	-						-		-
34	**Total Other Income & Deductions**		$ (117,807)	$ -	$ -	$ -	$ 28	$ 28	$ (117,779)	$ -	$ (117,779)
35	**Net Profit (Loss)**		$ (240,277)	$ (42,913)	$ -	$ 16,553	$ 28	$ (26,332)	$ (266,609)	$ 446,575	$ 179,966
36											
37											
38											
39											
40											
41											
42											
43	Supporting Schedules:										
44											
45	Workpapers & Supporting Documents:										
46	\Schedules\2010 Revised Havasu Water Sch. A-										
47	\10 Havasu Water\Workpapers\Havasu Water Al										
48											
49											
50											

Recap Schedules:
C-1 Rejoinder

Arizona American Water Company - Havasu Water
Test Year Ended June 30, 2010
Income Statement Rejoinder Adjustment MHK-2RJ

Exhibit
Schedule C-2 Rejoinder
Page 2
Witness: Kiger

Line No.				
1	Accept Staff Surrebuttal Adj #1 Chemicals			
2				
3				
4				
5				
6				
7	Accept Staff Pro Forma Chemical Expense			$ 195,084
8				
9	TY June 2010 Chemicals Expense - Havasu Water			
10	Amortization of Arsenic Chemicals	$	(17,165)	
11	Chemicals Other than Arsenic	$	1,157	
12				
13	Adjusted Test Year Chemical Expense			$ 152,171
14				
15				
16	Increase/(Decrease) in Chemicals Expense			$ 42,913
17				
18	Adjustment to Revenue and/or Expense			$ 42,913
19				
20				
21				
22				
23				
24				
25				
26				
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42				
43				
44				
45	Workpapers & Supporting Documents:			
46	\10 AZ\Common\Chemicals\2010 Rebuttal AZ Chemicals 12mo end 06-10.xls			
47				
48				
49				
50	\Schedules\2010 Revised Havasu Water Sch. A-F.xls\			

Arizona American Water Company - Havasu Water
Test Year Ended June 30, 2010
Income Statement Rejoinder Adjustment MHK-3RJ

Exhibit
Schedule C-2 Rejoinder
Page 3
Witness: Kiger

Line No.		[A] Property Tax Expense	[B] Property Tax Expense For Conversion Factor
1	Adjust Property Taxes to Reflect Proposed Revenues:		
2			
3	Adjusted Revenues in Year Ended Dec. 2008	$ 1,266,066	$ 1,266,066
4	Adjusted Revenues in Year Ended Dec. 2008	1,266,066	1,266,066
5	Proposed Revenues	1,266,066	2,010,317
6	Average of Three Year's of Revenue	$ 1,266,066	$ 1,514,150
7	Average of Three Year's of Revenue, times 2	$2,532,133	$3,028,300
8	Add:		
9	Construction Work in Progress at 10%	6,630	6,630
10	Deduct:		
11	Net Book Value of Transportation Equipment	$ -	$ -
12			
13	Full Cash Value	$ 2,538,763	$ 3,034,929
14	Assessment Ratio (For 2011 per HB 2784)	20%	20%
15	Assessed Value	$ 507,753	$ 606,986
16	Property Tax Rate	8.074%	8.074%
17			
18	Property Tax	40,997	49,009
19	Tax on Parcels	-	-
20			
21	Adjusted Test Year Property Taxes at Present Rates (Line 18+Line 19, Col [A])	$ 40,997	
22	Property Taxes in the Test Year	40,997	
23	Adjustment to Revenue and/or Expense (To Sch C-2, Col [AA])	$ -	
24			
25	Adjusted Test Year Property Taxes at Proposed Rates (Line 18+Line 19, Col [B])		$ 49,009
26	Adjusted Test Year Property Taxes at Present Rates (Line 21, Col [A])		40,997
27	Additional Property Taxes on Proposed Revenues (To Sch C-2, Col [AH])		$ 8,012
28			
29			
30			
31	CALCULATION OF PROPERTY TAX FACTOR TO COMPUTE GROSS REVENUE CONVERSION FACTOR (SCH C-3):		
32			
33	Increase in Property Tax Due to Increase in Revenue Requirement (Line 27, Col [B])		$ 8,012
34			
35	Increase in Revenue Requirement (From Sch. A1)		$ 744,250
36			
37	Increase in Property Tax Per Dollar Increase in Revenue (Line 33/Line 35)		1.0766%
38			
39			
40			
41			
42			
43	Workpapers & Supporting Documents:		
44	\10 AZ\Common\Property Taxes\2009 pd in 09-10 AZ Tax Payment.xls		
45			
46			
47			
48			
49			
50	\Schedules\2010 Revised Havasu Water Sch. A-F.xls\		

Arizona American Water Company - Havasu Water
Test Year Ended June 30, 2010
Income Statement Rejoinder Adjustment SLM-1RJ

Exhibit
Schedule C-2 Rejoinder
Page 4
Witness: Murrey

Line No.	Calculation of Income Taxes at Proposed Rates		Test Year Adjusted Results	Adjusted with Rate Increase
1				
2				
3				
4	Operating Income Before Inc. Taxes		$ (312,071)	$ 415,236
5	Interest Expense		110,847	110,847
6	Arizona Taxable Income		$ (422,919)	$ 304,388
7				
8	Less Arizona Income Tax		$ (29,469)	$ 21,210
9	Arizona Income Tax Rate =	6.968%		
10				
11	Federal Income Before Taxes		$ (422,919)	$ 304,388
12	Less Arizona Income Taxes		(29,469)	21,210
13	Federal Taxable Income		$ (393,450)	$ 283,179
14				
15	Federal Income Taxes:	34.000%	$ (133,773)	$ 96,281
16				
17				
18	Total Income Tax		$ (163,242)	$ 117,491
19				
20	Tax Rate		38.60%	38.60%
21				
22	Effective Income Tax Rates			
23	State		6.968%	6.968%
24	Federal		31.63%	31.63%
25				
26				
27	Test Year Income Taxes, Per Books		$ (146,689)	
28	Increase in Income Taxes		$ (16,553)	
29				
30	Adjustment to Revenues and/or Expense		$ (16,553)	
31				
32	Test Year Income Taxes, Adjusted			$ (163,242)
33	Increase in Income Taxes			280,732
34				
35	Adjustment to Revenue and/or Expense			$ 280,732
36				
37				
38				
39				
40				
41				
42	Workpapers & Supporting Documents:			
43	\Schedules\2010 Revised Havasu Water Sch. A-F.xls\			

Arizona American Water Company - Havasu Water
Test Year Ended June 30, 2010
Income Statement Rejoinder Adjustment SLM-2RJ

Exhibit
Schedule C-2 Rejoinder
Page 5
Witness: Murrey

Line No.			
1	Interest Synchronization with Rate Base		
2			
3	Original Cost Rate Base (Sch. B-1, Ln. 27)		$ 3,587,296
4	Weighted Cost of Debt from Schedule D-1		3.09%
5	Synchronized Interest Expense		$ 110,847
6			
7	Test Year Interest Expense	$ 110,875	
8			
9	Adjusted Test Year Interest Expense		$ 110,875
10			
11	Increase/(Decrease) in Interest Expense		$ (28)
12			
13	Adjustment to Revenue and/or Expense		$ (28)
14			
15			
16			
17			
18			
19			
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44			
45	Workpapers & Supporting Documents:		
46			
47			
48			
49			
50	\Schedules\2010 Revised Havasu Water Sch. A-F.xls\		

Arizona American Water Company - Havasu Water
Test Year Ended June 30, 2010
Computation of Gross Revenue Conversion Factor

Exhibit
Schedule C-3 Rejoinder
Page 1
Witness: Kiger

Line No.	Description					Percentage of Incremental Gross Revenues
1	Federal Income Taxes					31.63%
2						
3	State Income Taxes					6.97%
4				Combined	38.60%	
5	Property Taxes	Effective Rate =	1.08%	One Minus Combined	61.40%	0.66%
6						
7	Bad Debt Expense	Effective Rate =	1.20%	One Minus Combined	61.40%	0.74%
8						
9	Total Tax Percentage					40.00%
10						
11	Operating Income % = 100% - Tax Percentage					60.00%
12						
13						
14						
15	1 = Gross Revenue Conversion Factor					
16	Operating Income %					1.6666
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
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37						
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42						
43	Supporting Schedules:					Recap Schedules:
44	\10 AZ\Common\Uncollectibles\Uncollectibles.xls					A-1 Rejoinder
45						
46						
47						
48						
49						
50	\Schedules\2010 Revised Havasu Water Sch. A-F.xls\					

Arizona American Water Company - Mohave Water
Test Year Ended June 30, 2010
Computation of Increase in Gross Revenue Requirement

Exhibit
Schedule A-1 Rejoinder
Page 1
Witness: Broderick

Line No.					
1	Original Cost Rate Base			$ 11,424,031	
2					
3	Adjusted Operating Income			$ (425,405)	
4					
5	Current Rate of Return			-3.72%	
6					
7	Required Operating Income			$ 948,195	
8					
9	Required Rate of Return			8.30%	
10					
11	Operating Income Deficiency			$ 1,373,600	
12					
13	Gross Revenue Conversion Factor			1.6692	
14					
15	Increase in Gross Revenue				
16	Requirement			$ 2,292,753	
17					
18	Customer	Present	Proposed	Dollar	Percent
19	Classification	Rates	Rates	Increase	Increase
20					
21	Residential	$ 3,563,295	$ 5,199,936	$1,636,641	45.9%
22	Commercial	950,142	1,317,483	367,341	38.7%
23	OPA	177,818	267,107	89,289	50.2%
24	Irrigation	-	120,884	120,884	0.0%
25	Private Fire	9,792	30,109	20,316	207.5%
26	Public Fire	17,368	26,103	8,735	50.3%
27	Total Water Revenues	$ 4,718,416	$ 6,961,622	$ 2,243,206 [1]	47.5%
28					
29	Other Revenues	-	-	-	0.0%
30					
31	Total Water Revenues	$4,718,416	$6,961,622	$ 2,243,206	47.5%
32					
33	Total TY Adj Rev from C-2	-	-	2,292,753	
34	Over / (Under)	4,718,416	6,961,622	(49,547) [2]	
35					
36					
37	[1] Total Water Revenue increase is greater than the Increase in Gross Revenue Requirement (Line 16) b/c of a pro forma				
38	shift of customers from Residential and Commercial classes to an Irrigation class, which produced a revenue shortfall				
39	in Present Rate terms that necessitated a compensatory adjustment to Proposed Rates. Please see the Direct				
40	Testimony of Company witness Miles H. Kiger for a detailed explanation of this revenue adjustment.				
41					
42	[2] This figure reflects the revenue shortfall due to the Irrigation customers pro forma, as referenced in Note 1 above.				
43					
44					
45					
46	Supporting Schedules:				
47	B-1 Rejoinder				
48	C-1 Rejoinder				
49	H-1				
50	\Schedules\2010 Revised Mohave Water Sch. A-F.xls\				

Arizona American Water Company - Mohave Water
Test Year Ended June 30, 2010
Summary of Fair Value Rate Base

Exhibit
Schedule B-1 Rejoinder
Page 1
Witness: Murrey

Line No.			Original Cost Rate Base
1			
2	Gross Utility Plant in Service	$	32,168,368
3			
4	Less:		
5			
6	Accumulated Depreciation		14,676,886
7			
8	Net Utility Plant in Service	$	17,491,482
9			
10	Less:		
11	Advances in Aid of		
12	Construction	$	6,098,106
13	Contributions in Aid of		
14	Construction - Net of Amortization		531,089
15	Imputed Regulatory Advances		-
16	Imputed Regulatory Contributions		-
17	Customer Meter Deposits		3,932
18	Deferred Income Taxes & Credits		(135,348)
19	Investment tax Credits		-
20	Plus:		-
21	Unamortized Finance		-
22	Charges		-
23	Deferred Debits		68,991
24	Allowance for Working Capital		361,337
25	Utility Plant Acquisition Adjustment		-
26			
27	Total Rate Base	$	11,424,031
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41	Supporting Schedules:		Recap Schedules:
42	B-2 Rejoinder		A-1 Rejoinder
43	B-5 Rejoinder		
44	E-1		
45			
46			
47			
48			
49			
50	\Schedules\2010 Revised Mohave Water Sch. A-F.xls\		

Arizona American Water Company - Mohave Water
Test Year Ended June 30, 2010
Original Cost Rate Base Pro Forma Adjustments

Exhibit
Schedule B-2 Rejoinder
Page 1
Witness: Murrey

Line No.		Company Rejoinder [A] Rebuttal Adjusted End of Test Year	[B] ADJ SLM-1RJ (Sched B-5 Rej) Working Capital	[C] ADJ SLM-2RJ Update Storage Tank to Actual	[D] Total Rejoinder Pro Forma Adjustments	[E] Rejoinder Adjusted End of Test Year
1	Gross Utility					
2	Plant in Service	$ 32,253,817		$ (85,449)	$ (85,449)	$ 32,168,368
3		-			-	-
4	**Less:**	-			-	-
5		-			-	-
6	Accumulated Depreciation	14,676,886			-	14,676,886
7						
8	Net Utility Plant					
9	in Service	$ 17,576,931	$ -	$ (85,449)	$ (85,449)	$ 17,491,482
10						
11	**Less:**					
12	Advances in Aid of					
13	Construction	6,098,106			-	6,098,106
14	Contributions in Aid of	-			-	-
15	Construction - Net	531,089			-	531,089
16	Imputed Regulatory Advances	-			-	-
17	Imputed Regulatory Contributions	-			-	-
18	Customer Meter Deposits	3,932			-	3,932
19	Deferred Income Taxes	(135,348)			-	(135,348)
20	Investment Tax Credits	-			-	-
21		-			-	-
22		-			-	-
23	**Plus:**	-			-	-
24	Deferred Debits	68,991			-	68,991
25	Working Capital	376,564	(15,226)		(15,226)	361,337
26	Utility Plant Acquisition Adjustment	-			-	-
27						
28	Total	$ 11,524,707	$ (15,226)	$ (85,449)	$ (100,675)	$ 11,424,031
29						
30						
31						
32						
33						
34						
35						
36						
37						
38	Supporting Schedules:					
39	B-5 Rejoinder					
40	E-1					
41	\Work Papers\Rate Base\UPIS Mohave Water 10.xls					
42	\Work Papers\Rate Base\Revised DEP Mohave Water 10.xls					
43	\Common\Rate Base\Workpapers\UPIS Corporate 10.xls					
44	\Common\Rate Base\Workpapers\Revised DEP Corporate 10.xls					
45	\Workpapers\CWIP Balances AZ Report 6-30-10.xls					
46						
47						
48						
49						
50	\Schedules\2010 Revised Mohave Water Sch. A-F.xls\					

Recap Schedules:
B-1 Rejoinder

Arizona American Water Company - Mohave Water
Test Year Ended June 30, 2010
Rate Base Adjustment SLM-2RJ

Exhibit
Schedule B-2 Rejoinder
Page 2
Witness: Murrey

Post Test Year Additions to Plant:

The Company expects to complete the Lake Mohave Highlands Storage Tank by March 2011. The projected project costs are:

		Project Costs	Annual Deprec Rate	Post TY Annual Depreciation Expense
304400	Struct & Imp - TD	$ 33,106	2.40%	$ 795
309000	Supply Mains	41,995	2.50%	1,050
330000	Distr Reservoir and Standpipes	516,367	1.85%	9,553
331000	T&D Mains	68,703	2.14%	1,470
		$ 660,172		$ 12,867

Updated project costs at 7/31/11:

		Project Costs	Annual Deprec Rate	Post TY Annual Depreciation Expense
304400	Struct & Imp - TD	$ 28,821	2.40%	$ 692
309000	Supply Mains	36,560	2.50%	914
330000	Distr Reservoir and Standpipes	449,532	1.85%	8,316
331000	T&D Mains	59,811	2.14%	1,280
		$ 574,723		$ 11,202

Rejoinder adjustment to update project costs:

		Project Costs	Annual Deprec Rate	Post TY Annual Depreciation Expense
304400	Struct & Imp - TD	$ (4,285)	2.40%	$ (103)
309000	Supply Mains	(5,436)	2.50%	(136)
330000	Distr Reservoir and Standpipes	(66,836)	1.85%	(1,236)
331000	T&D Mains	(8,893)	2.14%	(190)
		$ (85,449)		$ (1,665)

Workpapers & Supporting Documents:

\Schedules\2010 Revised Mohave Water Sch. A-F.xls\

Arizona American Water Company - Mohave Water
Test Year Ended June 30, 2010
Computation of Working Capital

Exhibit
Schedule B-5 Rejoinder
Page 1
Witness: Murrey

Line No.		Company Rejoinder
1		
2	Working Cash Requirement	$ 210,661
3	Material and Supplies Inventories	38,979 [1]
4	Prepayments	111,697
5		
6		
7	Total Working Capital Allowance	$ 361,337
8		
9	Less Company amount in Rebuttal Filing	$ 376,564
10		
11	Decrease to Rate Base	$ (15,226)
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
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39		
40		
41		
42		
43	Supporting Schedules:	Recap Schedules:
44	E-1	B-1 Rejoinder
45	Workpapers & Supporting Documents:	
46	[1]Thirteen-month average	
47		
48		
49		
50	\Schedules\2010 Revised Mohave Water Sch. A-F.xls\	

Arizona American Water Company
Test Year Ended June 30, 2010
Lead/Lag Study - Working Cash Requirement

Exhibit
Schedule B-6 Rejoinder
Page 1
Witness: Murrey

MOHAVE WATER

Line No.		JUNE 2010 Test Year Adjusted Results	Revenue Lag Days	Expense Lag Days	Net Lag Days	Lead/ Lag Factor	Cash Working Capital Required
1	OPERATING EXPENSES						
2	**P08** Labor	$ 1,203,643	48.15644	12.0000	36.1564	0.0991	$ 119,231
3	**P09** Purchased Water	$ 19,361	48.15644	86.8700	(38.7136)	(0.1061)	(2,054)
4	**P10** Fuel & Power	$ 621,653	48.15644	32.4200	15.7364	0.0431	26,802
5	**P11** Chemicals	$ 10,377	48.15644	28.4700	19.6864	0.0539	560
6	**P12** Waste Disposal	$ -	48.15644	30.0000	18.1564	0.0497	-
7	**P13** Management Fees	$ 928,106	48.15644	18.1600	29.9964	0.0822	76,274
8	**P14** Group Insurance	$ 283,459	48.15644	(4.6445)	52.8009	0.1447	41,005
9	**P15** Pensions	$ 194,252	48.15644	45.0000	3.1564	0.0086	1,680
10	**P17** Insurance Other Than Group	$ 55,096	48.15644	45.0000	3.1564	0.0086	476
11	**P18** Customer Accounting	$ 150,717	48.15644	7.4600	40.6964	0.1115	16,804
12	**P19** Rents	$ 27,332	48.15644	(10.6818)	58.8382	0.1612	4,406
13	**P27-** Depreciation & Amortization		48.15644	-	48.1564	0.1319	-
14	Other Operating Expenses[1]	$ 934,296	48.15644	30.0000	18.1564	0.0497	46,475
15	TAXES						
16	**P29** Taxes Other than Income	$ 93,786	48.15644	15.6511	32.5054	0.0891	8,352
17	**P29** Property Taxes	$ 175,846	48.15644	212.5000	(164.3436)	(0.4503)	(79,176)
18	**P30-** Income Tax[2]	$ 374,158	48.15644	42.0402	6.1163	0.0168	6,270
19							
20	**P56-** Interest	$ 353,003	48.15644	106.5200	(58.3636)	(0.1599)	(56,445)
21							
22							
23							
24							
25							
26	WORKING CASH REQUIREMENT	$ 5,425,085					$ 210,661
27							
28							

29 [1]All other Operating Expenses are assumed to be paid by the 15th of the month following the receipt of goods and services.

30 [2]At proposed rates.

Arizona American Water Company - Mohave Water
Test Year Ended June 30, 2010
Adjusted Test Year Income Statement

Exhibit
Schedule C-1 Rejoinder
Page 1
Witness: Kiger

Line No.		[A] Test Year Rebuttal Results	[B] Total Rejoinder Pro Forma Adjustments	[C] Test Year Rejoinder Results	[D] Proposed Rate Increase	[E] Adjusted with Rate Increase
1	**Revenues**					
2	Water Revenues	$ 4,726,464	$ 332	$ 4,726,796	$ 2,292,753	$ 7,019,549
3	Other Revenues	177,796	-	177,796		177,796
4						
5		$ 4,904,260	$ 332	$ 4,904,592	$ 2,292,753	$ 7,197,345
6	**Operating Expenses**					
7	Labor	$ 1,203,643	$ -	$ 1,203,643		$ 1,203,643
8	Purchased Water	19,361	-	19,361		19,361
9	Fuel & Power	621,653	-	621,653		621,653
10	Chemicals	10,377	-	10,377		10,377
11	Waste Disposal	-	-	-		-
12	Management Fees	928,106	-	928,106		928,106
13	Group Insurance	283,459	-	283,459		283,459
14	Pensions	194,252	-	194,252		194,252
15	Regulatory Expense	33,521	-	33,521		33,521
16	Insurance Other Than Group	55,096	-	55,096		55,096
17	Customer Accounting	150,717	-	150,717	28,384	179,101
18	Rents	27,332	-	27,332		27,332
19	General Office Expense	123,891	-	123,891		123,891
20	Miscellaneous	455,794	-	455,794		455,794
21	Maintenance Expense	354,611	-	354,611		354,611
22	Depreciation & Amortization	1,089,552	(1,665)	1,087,886		1,087,886
23	General Taxes-Property	175,834	12	175,846	27,278	203,124
24	General Taxes-Other	93,786	-	93,786		93,786
25	Income Taxes	(491,301)	1,967	(489,334)	863,492	374,158
26						
27	**Total Operating Expenses**	$ 5,329,683	$ 314	$ 5,329,997	$ 919,154	$ 6,249,151
28	**Utility Operating Income**	$ (425,423)	$ 19	$ (425,405)	$ 1,373,599	$ 948,194
29	**Other Income & Deductions**					
30	*Other Income* & Deductions	$ -	$ -	$ -		$ -
31	Interest Expense	356,113	(3,111)	353,003		353,003
32	Other Expense	33,268	-	33,268		33,268
33	Gain/Loss Sale of Fixed Assets	-	-	-		-
34	**Total Other Income & Deductions**	$ (389,381)	$ 3,111	$ (386,271)	$ -	$ (386,271)
35	**Net Profit (Loss)**	$ (814,805)	$ 3,129	$ (811,675)	$ 1,373,599	$ 561,923
36						
37						
38						
39						
40						
41						
42						
43						
44	Supporting Schedules:			Recap Schedules:		
45	E-2			A-1 Rejoinder		
46	C-2 Rejoinder					
47						
48						
49						
50	\Schedules\2010 Revised Mohave Water Sch. A-F.xls\					

Arizona American Water Company - Mohave Water
Test Year Ended June 30, 2010
Income Statement Pro Forma Adjustments

Exhibit
Schedule C-2 Rejoinder
Page 1
Witness: Kiger

Line No.			COMPANY REJOINDER									
			[A] Test Year Rebuttal Results	[B] ADJ MHK-1RJ Annualize Rate Increase	[C] ADJ MHK-3RJ Annualize Property Taxes	[D] ADJ SLM-1RJ Federal and State Income Taxes	[E] ADJ SLM-2RJ Interest Synchronization	[F] ADJ SLM-3RJ Annualize Depreciation	[G] Total Pro Forma Adjustments	[H] Test Year Rejoinder Results	[I] Proposed Rate Increase	[J] Adjusted with Rate Increase
1	**Revenues**											
2	**P02**	Water Revenues	$ 4,726,464	$ 332					$ 332	$ 4,726,796	$ 2,292,753	$ 7,019,549
3	**P04**	Other Revenues	177,796						-	177,796		177,796
4			-						-	-		-
5			$ 4,904,260	$ 332	$ -	$ -	$ -	$ -	$ 332	$ 4,904,592	$ 2,292,753	$ 7,197,345
6	**Operating Expenses**											
7	**P08**	Labor	$ 1,203,643						$ -	$ 1,203,643		$ 1,203,643
8	**P09**	Purchased Water	19,361						-	19,361		19,361
9	**P10**	Fuel & Power	621,653						-	621,653		621,653
10	**P11**	Chemicals	10,377						-	10,377		10,377
11	**P12**	Waste Disposal	-						-	-		-
12	**P13**	Management Fees	928,106						-	928,106		928,106
13	**P14**	Group Insurance	283,459						-	283,459		283,459
14	**P15**	Pensions	194,252						-	194,252		194,252
15	**P16**	Regulatory Expense	33,521						-	33,521		33,521
16	**P17**	Insurance Other Than Group	55,096						-	55,096		55,096
17	**P18**	Customer Accounting	150,717						-	150,717	28,384	179,101
18	**P19**	Rents	27,332						-	27,332		27,332
19	**P20**	General Office Expense	123,891						-	123,891		123,891
20	**P21**	Miscellaneous	455,794						-	455,794		455,794
21	**P25**	Maintenance Expense	354,611						-	354,611		354,611
22	**P27-28**	Depreciation & Amortization	1,089,552					(1,665)	(1,665)	1,087,886		1,087,886
23	**P29**	General Taxes-Property	175,834		12				12	175,846	27,278	203,124
24	**P29**	General Taxes-Other	93,786						-	93,786		93,786
25	**P30-31**	Income Taxes	(491,301)			1,967			1,967	(489,334)	863,492	374,158
26												
27	**Total Operating Expenses**		$ 5,329,683	$ -	$ 12	$ 1,967	$ -	$ (1,665)	$ 314	$ 5,329,997	$ 919,154	$ 6,249,151
28	**Utility Operating Income**		$ (425,423)	$ 332	$ (12)	$ (1,967)	$ -	$ 1,665	$ 19	$ (425,405)	$ 1,373,599	$ 948,194
29	**Other Income & Deductions**											
30	**P39-42**	Other Income & Deductions	$ -						$ -	$ -		$ -
31	**P56-60**	Interest Expense	356,113				(3,111)		(3,111)	353,003		353,003
32	**P48-51**	Other Expense	33,268						-	33,268		33,268
33	**P43**	Gain/Loss Sale of Fixed Assets	-							-		-
34	**Total Other Income & Deductions**		$ (389,381)	$ -	$ -	$ -	$ 3,111	$ -	$ 3,111	$ (386,271)	$ -	$ (386,271)
35	**Net Profit (Loss)**		$ (814,805)	$ 332	$ (12)	$ (1,967)	$ 3,111	$ 1,665	$ 3,129	$ (811,675)	$ 1,373,599	$ 561,923
36												
37												
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41												
42												
43	Supporting Schedules:											
44												
45	Workpapers & Supporting Documents:											
46	\Schedules\2010 Revised Mohave Water Sch. A-F											
47	\10 Mohave Water\Workpapers\Mohave Water Al											
48												
49												
50												

Recap Schedules:
C-1 Rejoinder

Arizona American Water Company - Mohave Water
Test Year Ended June 30, 2010
Income Statement Rejoinder Adjustment MHK-1RJ

Exhibit
Schedule C-2 Rejoinder
Page 2
Witness: Kiger

Line No.					
1	Adjust Test Year Water Revenues to Correct Computational Error				
2					
3	Rate				Revenue
4	Schedule	Description			Increase
5	G1M1A	Bullhead Residential 5/8" & 3/4"			
6	G1M1B	Bullhead Residential 1"			
7	G1M1D	Bullhead Residential 2"			
8	G1M1E	Bullhead Residential 3"			
9	G1M2A	Bullhead Residential Apt 5/8"			
10	G1M2B	Bullhead Residential Apt 1"			
11	G1M2C	Bullhead Residential Apt 1-1/2"			
12	G1M2D	Bullhead Residential Apt 2"			
13	G1M2F	Bullhead Residential Apt 4"			
14	G1M2G	Bullhead Residential Apt 6"			
15	G1M2H	Bullhead Residential Apt 8"			
16	G1M3A	Rio Utility Residential 5/8"			
17	G1M3B	Rio Utility Residential 1"			
18			Total Residential	$	-
19					
20	G2M1A	Bullhead Commercial 5/8" & 3/4"			
21	G2M1B	Bullhead Commercial 1"			
22	G2M1C	Bullhead Commercial 1-1/2"			
23	G2M1D	Bullhead Commercial 2"			
24	G2M1E	Bullhead Commercial 3"			
25	G2M1F	Bullhead Commercial 4"			
26	G2M1G	Bullhead Commercial 6"			
27	G2M1V	BHC Veterans Memorial			
28			Total Commercial	$	-
29					
30	G4M1	Bullhead OPA - 1"			
31	G4M1	Bullhead OPA - 1-1/2"			
32	G4M1	Bullhead OPA - 2"			
33	G4M1	Bullhead OPA - 3"			
34	G4M1	Bullhead OPA - 4"			
35	G4M1	Bullhead OPA - 5/8"			
36	G4M1	Bullhead OPA - 6"			
37			Total Sale for Resale	$	-
38					
39	G6M02	Bullhead Private Fire 2"	$ 15.84		
40	G6M04	Bullhead Private Fire 4"	$ 95.01		
41	G6M06	Bullhead Private Fire 6"	$ 44.10		
42	G6M08	Bullhead Private Fire 8"	$ 14.71		
43	G6M10	Bullhead Private Fire 10"	$ 3.72		
44	G8M1	Bullhead Public Hydrants	$ 313.78		
45			Total Private/ Public Fire	$	487.15
46					
47			Test Year Fire Adj Original Filing	$	154.95
48	Workpapers & Schedules				
49	\10 Mohave Water\Schedules\2010 Revised Mohave Water Sch H.xls		Rejoinder Water Revenue Adjustment	$	332.21
50	\Schedules\2010 Revised Mohave Water Sch. A-F.xls\				

Arizona American Water Company - Mohave Water
Test Year Ended June 30, 2010
Income Statement Rejoinder Adjustment MHK-3RJ

Exhibit
Schedule C-2 Rejoinder
Page 3
Witness: Kiger

Line No.		[A] Property Tax Expense	[B] Property Tax Expense For Conversion Factor
1	Adjust Property Taxes to Reflect Proposed Revenues:		
2			
3	Adjusted Revenues in Year Ended June 2010	$ 4,904,592	$ 4,904,592
4	Adjusted Revenues in Year Ended June 2010	4,904,592	4,904,592
5	Proposed Revenues	4,904,592	7,197,345
6	Average of Three Year's of Revenue	$ 4,904,592	$ 5,668,843
7	Average of Three Year's of Revenue, times 2	$9,809,184	$11,337,686
8	Add:		
9	Construction Work in Progress at 10%	44,361	44,361
10	Deduct:		
11	Net Book Value of Transportation Equipment	$ -	$ -
12			
13	Full Cash Value	$ 9,853,545	$ 11,382,047
14	Assessment Ratio (For 2011 per HB 2784)	20%	20%
15	Assessed Value	$ 1,970,709	$ 2,276,409
16	Property Tax Rate	8.92%	8.92%
17			
18	Property Tax	175,846	203,124
19	Tax on Parcels	-	-
20			
21	Adjusted Test Year Property Taxes at Present Rates (Line 18+Line 19, Col [A])	$ 175,846	
22	Property Taxes in the Test Year	175,834	
23	Adjustment to Revenue and/or Expense (To Sch C-2, Col [AA])	$ 12	
24			
25	Adjusted Test Year Property Taxes at Proposed Rates (Line 18+Line 19, Col [B])		$ 203,124
26	Adjusted Test Year Property Taxes at Present Rates (Line 21, Col [A])		175,846
27	Additional Property Taxes on Proposed Revenues (To Sch C-2, Col [AH])		$ 27,278
28			
29			
30			
31	CALCULATION OF PROPERTY TAX FACTOR TO COMPUTE GROSS REVENUE CONVERSION FACTOR (SCH C-3):		
32	Increase in Property Tax Due to Increase in Revenue Requirement (Line 27, Col [B])		$ 27,278
33			
34	Increase in Revenue Requirement (From Sch. A1)		$ 2,292,753
35			
36	Increase in Property Tax Per Dollar Increase in Revenue (Line 33/Line 35)		1.19%
37			
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48	Workpapers & Supporting Documents:		
49			
50	\Schedules\2010 Revised Mohave Water Sch. A-F.xls\		

Arizona American Water Company - Mohave Water
Test Year Ended June 30, 2010
Income Statement Rejoinder Adjustment SLM-1RJ

Exhibit
Schedule C-2 Rejoinder
Page 4
Witness: Murrey

Line No.			Test Year Adjusted Results	Adjusted with Rate Increase
1	Calculation of Income Taxes at Proposed Rates			
2				
3				
4	Operating Income Before Inc. Taxes		$ (914,739)	$ 1,322,352
5	Interest Expense		353,003	353,003
6	*Arizona Taxable Income*		$ (1,267,741)	$ 969,349
7				
8	Less Arizona Income Tax		$ (88,336)	$ 67,544
9	Arizona Income Tax Rate =	6.968%		
10				
11	Federal Income Before Taxes		$ (1,267,741)	$ 969,349
12	Less Arizona Income Taxes		(88,336)	67,544
13	Federal Taxable Income		$ (1,179,405)	$ 901,805
14				
15	Federal Income Taxes	34.000%	$ (400,998)	$ 306,614
16				
17				
18	Total Income Tax		$ (489,334)	$ 374,158
19				
20	Tax Rate		38.60%	38.60%
21				
22	Effective Income Tax Rates			
23	State		6.968%	6.968%
24	Federal		31.63%	31.63%
25				
26	Test Year Income Taxes, Per Books		$ (491,301)	
27	Increase in Income Taxes		$ 1,967	
28				
29	Adjustment to Revenues and/or Expense		$ 1,967	
30				
31				
32	Test Year Income Taxes, Adjusted			$ (489,334)
33				
34	Increase in Income Taxes			863,492
35				
36	Adjustment to Revenue and/or Expense			$ 863,492
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48	Workpapers & Supporting Documents:			
49				
50	\Schedules\2010 Revised Mohave Water Sch. A-F.xls\			

Arizona American Water Company - Mohave Water
Test Year Ended June 30, 2010
Income Statement Rejoinder Adjustment SLM-2RJ

Exhibit
Schedule C-2 Rejoinder
Page 5
Witness: Murrey

Line No.			
1	Interest Synchronization with Rate Base		
2			
3	Original Cost Rate Base (Sch. B-1, Ln. 24)		$ 11,424,031
4	Weighted Cost of Debt from Schedule D-1		3.09%
5	Synchronized Interest Expense		$ 353,003
6			
7	Test Year Interest Expense	$ 356,113	
8			
9	Adjusted Test Year Interest Expense		$ 356,113
10			
11	Increase/(Decrease) in Interest Expense		$ (3,111)
12			
13	Rejoinder adjustment to Revenue and/or Expense		$ (3,111)
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45	Workpapers & Supporting Documents:		
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48			
49			
50	\Schedules\2010 Revised Mohave Water Sch. A-F.xls\		

Arizona American Water Company - Mohave Water
Test Year Ended June 30, 2010
Income Statement Rejoinder Adjustment SLM-3RJ

Exhibit
Schedule C-2 Rejoinder
Page 6
Witness: Murrey

Line No.					
1	Adjust Depreciation/Amortization Expense to Reflect Test Year Adjusted Plant:				
2					
3	Annualized Depreciation Expense on Test Year UPIS			$	1,089,772
4	Depreciation Expense on Post-Test Year Plant Additions			$	11,202
5					
6	Corp Amortization of Y2K Costs	$ 30,540			
7	Corp Amortization of Depreciation Study Costs	$ 2,352			
8	Subtotal		$ 32,892		
9	Citizens' Districts-Only Allocation Factor		8.051%		
10	District Share of Y2K Amortization			$	2,648
11					
12	Corp AFUDC Equity Tax Gross-Up		$ 69,721		
13	4-Factor Allocation		7.412%		
14	District Share of Corp AFUDC Equity Tax Gross-Up			$	5,168
15					
16	Less: Amortization of Contributions				
17	Contributions at TYE 06/30/10		$ 619,629		
18	Composite Depreciation Rate for District		3.37%	$	20,904
19					
20					
21	Total Depreciation Expense			$	1,087,886
22					
23	Rebuttal Test Year Depreciation Expense			$	1,089,552
24					
25	Increase/(Decrease) in Depreciation Expense			$	(1,665)
26					
27	Rejoinder Adjustment to Revenue and/or Expense			$	(1,665)
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45	Workpapers & Supporting Documents:				
46	\10 Mohave Water\Workpapers\Mohave Water AI 2010.xls				
47	\Common\Workpapers\2010 Reg Asset-Amort Wrkpaper.xls				
48					
49					
50	\Schedules\2010 Revised Mohave Water Sch. A-F.xls\				

Arizona American Water Company - Mohave Water
Test Year Ended June 30, 2010
Computation of Gross Revenue Conversion Factor

Exhibit
Schedule C-3 Rejoinder
Page 1
Witness: Kiger

Line No.	Description					Percentage of Incremental Gross Revenues
1	Federal Income Taxes					31.63%
2						
3	State Income Taxes					6.97%
4				Combined	38.60%	
5	Property Taxes	Effective Rate =	1.19%	One Minus Combined	61.40%	0.73%
6						
7	Bad Debt Expense	Effective Rate =	1.238%	One Minus Combined	61.40%	0.76%
8						
9	Total Tax Percentage					40.09%
10						
11	Operating Income % = 100% - Tax Percentage					59.91%
12						
13						
14						
15	1 = Gross Revenue Conversion Factor					
16	Operating Income %					1.6692
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43	Supporting Schedules:				Recap Schedules:	
44					A-1 Rejoinder	
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50	\Schedules\2010 Revised Mohave Water Sch. A-F.xls\					