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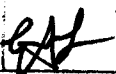
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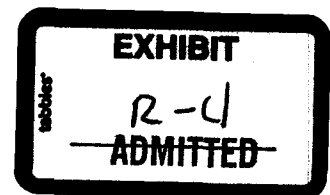
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GLOBAL UTILITIES  
DOCKET NO. W-01212A-12-0309 ET AL.

DIRECT TESTIMONY  
OF  
WILLIAM A. RIGSBY

ON BEHALF OF  
THE  
RESIDENTIAL UTILITY CONSUMER OFFICE

JULY 8, 2013





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12 Prepared by Larkin & Associates, PLLC for AARP

**EXECUTIVE SUMMARY**

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Based on the Residential Utility Consumer Office's ("RUCO") analysis of the applications for a permanent rate increase ("Applications") of Global Water - Palo Verde Utilities Company ("Palo Verde"); Global Water - Santa Cruz Water Company ("Santa Cruz"); Global Water - Valencia Water Company - Town Division ("VWCT"); Water Utility of Greater Tonopah, Inc. ("WUGT"); Willow Valley Water Company, Inc. ("Willow Valley"); Valencia Water Company - Greater Buckeye Division ("VWCGB"); and Global Water - Water Utility of Northern Scottsdale ("WUNS") (collectively "Applicants," "Global Utilities," or "Company") which were filed with the Arizona Corporation Commission ("ACC" or "Commission") on July 9, 2012, RUCO recommends the following:

RUCO recommends that the Arizona Corporation Commission reject the Applicants' request for a Distribution System Improvement Charge and a Collection System Improvement Charge.

1 **INTRODUCTION**

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

3 A. My Name is William A. Rigsby. I am the Chief of Accounting and Rates  
4 for the Residential Utility Consumer Office ("RUCO") located at 1110 W.  
5 Washington, Suite 220, Phoenix, Arizona 85007.

6  
7 **Q. Please describe your qualifications in the field of utility regulation  
8 and your educational background.**

9 A. I have been involved with utility regulation in Arizona since 1994. During  
10 that period of time I have worked as a utilities rate analyst for both the  
11 Arizona Corporation Commission ("ACC" or "Commission") and for RUCO.  
12 I hold a Bachelor of Science degree in the field of finance from Arizona  
13 State University and a Master of Business Administration degree, with an  
14 emphasis in accounting, from the University of Phoenix. Appendix 1,  
15 which is attached to my direct testimony on the cost of capital issues In  
16 this case, further describes my educational background and also includes  
17 a list of the rate cases and regulatory matters that I have been involved in.

18  
19 **Q. What is the purpose of your testimony?**

20 A. The purpose of my testimony is to present RUCO's position on requests  
21 for a water system Distribution System Improvement Charge ("DSIC") and  
22 a wastewater system Collection System Improvement Charge ("CSIC")  
23 presented in the applications for a permanent rate increase

1 ("Applications") of Global Water - Palo Verde Utilities Company ("Palo  
2 Verde"); Global Water - Santa Cruz Water Company ("Santa Cruz");  
3 Global Water - Valencia Water Company - Town Division ("VWCT"); Water  
4 Utility of Greater Tonopah, Inc. ("WUGT"); Willow Valley Water Company,  
5 Inc. ("Willow Valley"); Valencia Water Company - Greater Buckeye  
6 Division ("VWCGB"); and Global Water - Water Utility of Northern  
7 Scottsdale ("WUNS") (collectively "Applicants," "Global Utilities," or  
8 "Company") which were filed with the Arizona Corporation Commission  
9 ("ACC" or "Commission") on July 9, 2012,

10

11 **Q. Will RUCO be filing testimony on the required revenue, rate design  
12 and cost of capital issues associated with AWC's Application?**

13 **A.** Yes. RUCO witness Robert B. Mease will provide direct testimony  
14 presenting RUCO's recommendations on required revenue and will  
15 address other issues in the case including RUCO's recommended  
16 treatment of Infrastructure Coordination and Financing Agreements  
17 ("ICFAs") and acquisition adjustments. Mr. Mease will also sponsor  
18 RUCO's direct testimony on rate design which is scheduled to be filed on  
19 July 15, 2013. As I noted above, I have also filed, under separate cover,  
20 direct testimony on the cost of capital issues in this case.

21

22

23

1 **SUMMARY OF TESTIMONY AND RECOMMENDATIONS**

2 **Q. Please summarize the specific issues that you will address in your**  
3 **direct testimony.**

4 A. My direct testimony will address the Applicants DSIC and CSIC requests.

5  
6 **Q. Please provide a brief summary of RUCO's recommendations.**

7 A. RUCO recommends that the Commission reject the Applicants' requests  
8 for DSIC and CSIC mechanisms for the reasons that I will present in my  
9 direct testimony.

10

11 **DSIC AND CSIC REQUESTS**

12 **Q. What water and wastewater systems are the Company requesting**  
13 **DSIC and CSIC mechanisms for?**

14 A. The Company is requesting DSIC mechanisms for all its water systems  
15 with the exception of WUNS, and a CSIS for the Palo Verde wastewater  
16 system. Both mechanisms will allow the Applicants to recover the costs of  
17 specific plant additions that are placed into service between general rate  
18 case proceedings through a surcharge.

19

20 **Q. Have you reviewed the direct testimony of Paul Walker that**  
21 **addresses the requests for the DSIC and CSIC mechanisms?**

22 A. Yes.

23

1 **Q. Briefly explain the Company's DSIC and CSIC requests.**

2 A. The Company is proposing that supply mains, distribution and  
3 transmission mains, services and meters recorded in National Association  
4 of Regulatory Utility Commissioners ("NARUC") Accounts numbered 309,  
5 332, 333 and 334 be eligible for recovery through a water system DSIC  
6 mechanism. For the wastewater CSIC, qualifying assets would include  
7 Collection Sewers - Force, Collection Sewers – Gravity, Special Collecting  
8 Structures, Services to Customers, Flow measuring Devices, Flow  
9 Measuring Installations and Outfall Sewer Lines recorded in NARUC  
10 Accounts numbered 360, 361, 362, 363, 364, 365 and 382.

11  
12 According to Mr. Walker's direct testimony, the Applicants would submit a  
13 Proposed System Improvement Plan that would specify five- and ten-year  
14 replacement plans for eligible assets financed by debt and equity that  
15 would be updated every two years. The Applicants would then file  
16 requests on an annual basis, for ACC Staff's review, to place completed  
17 projects into rate base and earn a return that is equal to the rate of return  
18 authorized in the last rate case.

19  
20 **Q. Have there been any developments regarding a mechanism similar to  
21 the DSIC and CSIC that the Applicants are requesting?**

22 A. Yes. Since Mr. Walker's testimony was filed on July 9, 2012, the ACC has  
23 issued Decision No. 73938, which approved an Arizona Water Company

1 ("AWC") Eastern Group settlement agreement that adopts a System  
2 Improvement Benefits ("SIB") surcharge mechanism for the Eastern  
3 Group water systems.<sup>1</sup> Like the DSIC and CSIC mechanisms being  
4 requested in this case, the SIB allows for recovery of qualifying water  
5 system plant additions that are placed into service between general rate  
6 case proceedings. Global Utilities was a party to the AWC Eastern Group  
7 settlement agreement as were a number of other Arizona water providers.

8  
9 **Q. Was RUCO a signatory to the AWC Eastern Group settlement**  
10 **agreement?**

11 A. No. RUCO was not a signatory to the Eastern Group settlement  
12 agreement. RUCO's Director, Patrick J. Quinn, and I testified against the  
13 settlement agreement during the AWC Eastern Group Phase 2 evidentiary  
14 hearing on the SIB mechanism.

15  
16 **Q. Have there been any other cases in which a SIB mechanism has**  
17 **been approved by the Commission?**

18 A. No. A settlement agreement that adopts a SIB mechanism for AWC's  
19 Northern Group water systems is before the Commission at this time, but  
20 has not yet been approved by the Commission. RUCO also opposed the  
21 AWC Northern Group settlement agreement as well.<sup>2</sup>

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<sup>1</sup> Docket Number W-01445A-11-0310

<sup>2</sup> Docket Number W-01445A-12-0348

1 **Q. Has the Commission approved a SIB mechanism or a CSIC for a**  
2 **wastewater utility, such as Palo Verde, to date?**

3 A. No.

4  
5 **Q. What is RUCO's recommendation regarding the Company-proposed**  
6 **DSIC and CSIC?**

7 A. RUCO recommends that the Commission reject the Company-proposed  
8 DSIC and CSIC for the same reasons that it opposed the SIB mechanism  
9 adopted in the aforementioned AWC Eastern and Northern Group  
10 settlement agreements. The SIB mechanism approved by the  
11 Commission for the AWC Eastern Group is intended to be a template for  
12 mechanisms such as the DSIC and CSIC that the Applicants are  
13 requesting in this case. For this reason I will include the SIB in the  
14 discussion that follows.

15  
16 **Q. Please discuss RUCO's reasons for opposing the adoption of the**  
17 **SIB, DSIC and CSIC mechanisms.**

18 A. There are four reasons<sup>3</sup> why RUCO is opposed to the adoption of the SIB,  
19 DSIC and CSIC mechanisms. First, each of the mechanisms allow for the  
20 recovery of routine plant improvements outside of a rate case that would  
21 normally be recovered in a general rate case proceeding. Second, the

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<sup>3</sup> There are also legal concerns with the implementation of the DSIC which, if necessary, RUCO will address in its legal briefs.



1 SIB, DSIC and CSIC are one-sided mechanisms that work only in the  
2 interest of shareholders. While they allow accelerated cost recovery for  
3 new plant, they fail to adequately consider reduced operations and  
4 maintenance expense ("O&M") savings attributable to the new plant.  
5 Third, there is no federal or state requirement mandating the types of  
6 routine plant additions that the SIB, DSIC and CSIC mechanisms recover  
7 through a surcharge. Fourth, neither AWC nor the Applicants in this case  
8 have proven that they would not be able to ensure safe and reliable water  
9 service or achieve cost recovery absent the adoption of a SIB, DSIC or  
10 CSIC. Therefore, there is no need for the Commission to adopt a special  
11 surcharge for such routine additions.

12  
13 **Q. In regard to RUCO's first reason for rejecting the Company-proposed**  
14 **DSIC and CSIC, are the types of infrastructure improvements that**  
15 **would be recovered through the SIB, DSIC and CSIC extraordinary in**  
16 **nature?**

17 **A.** No. Like the AWC Eastern and Northern Group SIBs, the types of  
18 infrastructure improvements for which the Company-proposed DSIC and  
19 CSIC mechanism are intended to recover are routine in nature. These are  
20 plant improvements that any regulated utility would normally make as  
21 existing assets reach the end of their useful lives. There is nothing  
22 extraordinary about these types of plant additions. Normal regulatory  
23 procedures allow cost recovery for these types of plant additions after a

1 determination of prudence and that the additions meet the used and useful  
2 standard during a general rate case proceeding when all of the various  
3 ratemaking elements are taken into consideration. RUCO has  
4 consistently opposed the use of cost recovery mechanisms that do not  
5 allow for the type of thorough analysis that takes place in a general rate  
6 case proceeding.

7  
8 **Q. Why is it important to consider all of the ratemaking elements when**  
9 **setting new rates?**

10 A. Because the addition of new plant that replaces aging plant can have an  
11 impact on operating expenses which are recovered by a utility on a dollar-  
12 for-dollar basis in new rates. For example, new additions may be  
13 responsible for lower purchased pumping power costs as a result of  
14 improved system efficiency and lower employee wage expense as a result  
15 of less time spent on repairing aging plant items after normal hours.  
16 Under the Company-proposed DSIC and CSIC, the Applicants would  
17 enjoy the benefit of receiving a return on and a return of its investment in  
18 new plant through a surcharge established between general rate case  
19 proceedings. Unfortunately, ratepayers receive no benefit from any cost  
20 savings that are related to the plant additions that they will be paying for  
21 through the SIB, DSIC and CSIC. Any cost savings resulting from new  
22 plant additions recovered through the Company-proposed DSIC and

1 CSIC would be pocketed by the Applicants between general rate case  
2 proceedings.

3

4 **Q. In regard to RUCO's third reason for rejecting the Company-**  
5 **proposed DSIC and CSIC, are there any federal or state regulations**  
6 **that require the Commission to approve a mechanism that is similar**  
7 **to the ACRM?**

8 A. No. Unlike the circumstances surrounding plant that was required for  
9 reducing the level of arsenic in drinking water, there are no federal or state  
10 requirements that warrant the implementation of a mechanism similar to  
11 the Arsenic Cost Recovery Mechanism ("ACRM")<sup>4</sup> for the recovery of  
12 aging plant between general rate cases. RUCO believes that adjustor  
13 mechanisms are extraordinary rate recovery devices that are permitted for  
14 certain narrow circumstances. In RUCO's view, the routine replacement  
15 of aging infrastructure, that would be recovered through the SIB or the  
16 Company-proposed DSIC and CSIC, does not qualify as an extraordinary  
17 circumstance that requires a mechanism such as the ACRM which was  
18 specifically designed to address a one-time event that impacted  
19 dozens of Arizona water companies simultaneously. RUCO believes  
20 that more mainstream issues, such as excessive water loss, are  
21 something that water providers should keep in check as a matter of

---

<sup>4</sup> The ACRM was adopted by the Commission in order to allow Arizona water providers to recover the costs associated with meeting more stringent arsenic level standards imposed by the federal government.

1 routine cost management. A water provider's failure to perform ordinary  
2 maintenance is not a reason for the institution of a SIB, DSIC or CSIC in  
3 RUCO's opinion.

4

5 **Q. Please discuss RUCO's fourth reason for rejecting the DSIC.**

6 A. RUCO believes that AWC should replace aging infrastructure as part of  
7 the Company's normal course of infrastructure improvements to ensure  
8 continued safety and reliability. RUCO, however, does not find that a  
9 SIB, DSIC or CSIC surcharge is necessary for AWC to meet the  
10 Company's obligation to provide safe and reliable water service. The  
11 Applicants do not contend that the denial of a DSIC or CSIC would change  
12 its ability to meet the Company's statutory and regulatory commitments  
13 and the Applicants do not allege that it is financially unable to make  
14 necessary and prudent infrastructure replacements without the DSIC or  
15 CSIC.

16

17 **Q. Does the National Association of State Consumer advocates**  
18 **("NASUCA") endorse mechanisms similar to the SIB, DSIC or CSIC?**

19 A. No. NASUCA issued a resolution in 1999 (Attachment A) that opposes  
20 the adoption and implementation of mechanisms such as the Company-  
21 proposed DSIC and CSIC. The resolution lists a number of sound  
22 reasons why such mechanisms should be rejected by state utility  
23 commissions.

1 **Q. Can you cite any research that illuminates the deficiencies in the SIB,**  
2 **and the Company-proposed DSIC and CSIC surcharges?**

3 A. Yes. In September of 2009, Ken Costello, a Principal with the National  
4 Regulatory Research Institute ("NRRI"), published a survey report on cost  
5 trackers (similar to the SIB and the Company-proposed DSIC and CSIC).

6 In his report, Mr. Costello noted the following:

7 "Cost trackers can, in various ways, result in higher utility costs.  
8 First, they undercut the positive effects of regulatory lag on a  
9 utility's costs. "Regulatory lag" refers to the time gap between  
10 when a utility undergoes a change in cost or sales levels and  
11 when the utility can reflect these changes in new rates.  
12 Economic theory predicts that the longer the regulatory lag, the  
13 more a utility has to control its costs; when a utility incurs costs,  
14 the longer it has to wait to recover those costs, the lower its  
15 earnings are in the interim. The utility, consequently, would have  
16 an incentive to minimize additional costs. Commissions rely on  
17 regulatory lag as an important tool for motivating utilities to act  
18 efficiently. As economist and regulator Alfred Kahn once  
19 remarked:

20  
21 "Freezing rates for the period of the lag imposes  
22 penalties for inefficiency, excessive conservatism,  
23 and wrong guesses, and offers rewards to their  
24 opposites; companies can for a time keep the  
25 higher profit they reap from a superior performance  
26 and have to suffer the losses for a poor one."  
27

28 Rational utility management, as a general rule, would exert  
29 minimal effort in controlling costs if it has no effect on the utility's  
30 profits. This condition occurs when a utility is able to pass  
31 through (with little or no regulatory scrutiny) higher costs to  
32 customers with minimal consequences for sales. Cost  
33 containment constitutes a real cost to management. Without any  
34 expected benefits, management would exert minimum effort on  
35 cost containment. The difficult problem for the regulator is to  
36 detect when management is lax. Regulators should concern  
37 themselves with this problem; lax management translates into a  
38 higher cost of service and, if undetected, higher rates to the  
39 utilities' customers. Regulators should closely monitor and

1           scrutinize costs, such as those subject to cost trackers, that  
2           utilities have little incentive to control.”<sup>5</sup>  
3

4   **Q.    Can you cite other cases or testimony that supports RUCO’s position**  
5   **on this issue?**

6   A.    Yes. In April of 2009, Sonny Popowsky, the Consumer Advocate for the  
7   State of Pennsylvania, offered testimony before the Pennsylvania House  
8   Consumer Affairs Committee regarding a House Bill that would have  
9   approved a mechanism similar to the SIB and the Company-proposed  
10   DSIC and CSIC for natural gas utilities (Attachment B). In his testimony,  
11   to support his argument against the adoption of the natural gas  
12   mechanism, Mr. Popowski quoted Commonwealth Court Judge Leavitt in  
13   her opinion on a CSIC, being sought by Pennsylvania-American Water  
14   Company:

15           “The surcharge is quite different from a base rate. In  
16   Pennsylvania, as in most jurisdictions, rates for public  
17   utilities are set using what is known as the test year concept,  
18   which requires taking a snapshot of the utility’s revenues,  
19   expenses and capital costs during a one-year period. The object  
20   of using a test year is to reflect typical conditions. Test year  
21   expenses may be adjusted or normalized where atypical or non-  
22   recurring. Under the test year concept, revenues, expenses and  
23   capital costs     are to be simultaneously reviewed for the same  
24   period of time so that a utility may prove its new rates are “just  
25   and reasonable.”  
26

27   Mr. Popowski went on to state the following:

28           “Unlike a traditional base rate case, in which all costs and all  
29   revenues are considered simultaneously, a DSIC is a one way  
30   street that can only increase rates between rate cases, even if a  
31

---

<sup>5</sup> Costello, Ken, “How Should Regulators View Cost Trackers?” Washington, DC: National Regulatory Research Institute, Pages 4-5 [footnotes excluded]

1 utility's other costs are going down or its revenues are going up.  
2 In setting utility rates, it is important to look at all the utility's costs  
3 and revenues, not just a single utility cost item that may be  
4 added between rate cases."  
5

6 **Q. Can RUCO cite any other studies that dispute the benefits of adjustor**  
7 **mechanisms such as the SIB or the Company-proposed DSIC and**  
8 **CSIC mechanisms discussed in your testimony?**

9 A. Yes. In May of 2012, Ralph Smith of Larkin & Associates, PLLC, who has  
10 testified in a number of rate case proceedings on behalf of ACC Staff and  
11 RUCO, recently authored a report on the increasing use of surcharges on  
12 consumer utility bills for the American Association of Retired Persons  
13 ("AARP") which I've attached to my direct testimony (Attachment C). In his  
14 report, Mr. Smith explains how, for many consumers, home utility bills are  
15 becoming more and more cluttered with new fees and surcharges to pay  
16 for everything from investment in new gas pipelines to environmental  
17 compliance costs. Mr. Smith points out that that these types of surcharges  
18 are departures from the traditional utility rate setting process. He also  
19 warns that surcharges, such as a SWIP or DSIC, can result not only in  
20 increased costs to consumers, but additional undesirable consequences  
21 such as reducing utility incentives to control costs and shifting utility  
22 business risks away from investors and onto customers.

23  
24 ...  
25

1 **Q. Has the Commission rejected such mechanisms in prior cases?**

2 A. Yes, in a prior Arizona-American Water Company rate case proceeding,  
3 the Commission adopted the recommendations of ACC Staff and RUCO  
4 and rejected a similar cost recovery mechanism identified as an  
5 Infrastructure Improvement Surcharge ("IIS"). Decision No. 72047 stated  
6 the following:

7 "The Company admits the surcharge would cover routine  
8 investments in such items as meters, mains, hydrants, tanks  
9 and booster stations, and while the Company proposed a cap  
10 on the increase between rates, the Company has not  
11 quantified the amount of the proposed surcharge. We agree  
12 with RUCO and Staff that the recovery of expenditures for  
13 plant additions and improvements does not warrant the  
14 extraordinary ratemaking device of an adjuster mechanism,  
15 and will therefore not grant the request for institution of an IIS."  
16

17 **Q. Do the customer bill impacts justify the adoption of the SIB or the**  
18 **Company-proposed DSIC and CSIC?**

19 A. No. While proponents argue that surcharge mechanisms such as the SIB  
20 or the Company-proposed DSIC and CSIC result in gradual rate increases  
21 that would be more palatable to both ACC Commissioners and to  
22 ratepayers, if the Commission were to adopt such mechanisms for the  
23 Applicants, ratepayers could be looking at a rate increase in every year  
24 between general rate cases. Municipal systems don't even impose such  
25 frequent rate hikes on their water and wastewater customers. This steady  
26 stream of rate increases is certainly a departure from the Commission's  
27 prior preference for rate stability between general rate cases. While it is  
28 possible that the adoption of a SIB or the Company-proposed DSIC and



1 CSIC may mitigate rate shock in future general rate cases, the  
2 Commission would have to weigh this with the fact that this steady stream  
3 of rate increases will benefit the Company more than AWC ratepayers  
4 given the fact that the surcharge amounts will not reflect any dollar-for-  
5 dollar cost reductions in operating expenses that are associated with the  
6 new plant.

7  
8 Because ACC Staff, and intervenors, such as RUCO, will not have the  
9 opportunity to look closely at the plant additions being placed into service  
10 between rate cases, the possibility exists that imprudent expenditures  
11 would not be discovered until a general rate case proceeding. By then  
12 ratepayers could have been overcharged for imprudent plant expenditures  
13 for a number of years. Furthermore, ratepayers who leave the affected  
14 systems will not even see any savings from new rates, established in a  
15 general rate case proceeding, that reflect lower operating costs or the  
16 disallowance of imprudent plant expenditures. For the reasons that I've  
17 given above, I believe that the Commission should reject a SIB or the  
18 Company-proposed DSIC and CSIC.

19  
20 **Q. Is there any way to mitigate the problems with the SIB or the DSIC**  
21 **and CSIC that you discussed above?**

22 **A.** Possibly. In July 2011, David D. Dismukes, Ph.D. (who recently testified  
23 for ACC Staff in the recent Southwest Gas Corporation rate case

1 proceeding), filed testimony<sup>6</sup> on a surcharge mechanism similar to the  
2 Company-proposed DSIC and CSIC in a proceeding before the Maryland  
3 Public Service Commission. As an alternative to an accelerated natural  
4 gas pipe replacement plan that was being proposed in that proceeding by  
5 WGL Holdings, Inc., Mr. Dismukes recommended an Operations &  
6 Maintenance (“O&M”) expense offset that would apply a specified dollar  
7 credit to every mile of replaced pipe. A similar credit could be applied to  
8 every foot of replacement line that AWC would recover through the  
9 Company-proposed DSIC. Mr. Dismukes recommendation makes good  
10 sense from the standpoint that O&M expense would drop as aging  
11 infrastructure is replaced. In this case, an O&M credit would have the  
12 effect of lowering the increased pro-forma level of O&M expense that it is  
13 being proposed by AWC in this case which would be embedded in base  
14 rates. The adoption of an O&M credit, that would be applied to customer  
15 bills at the same time that potential DSIC surcharges go into effect, would  
16 produce fairer rates in RUCO’s view.

17  
18 **Q. Did the Maryland Public Service Commission approve the surcharge**  
19 **portion of the plan being proposed by WGL Holdings, Inc.?**

20 **A. No.** In its final decision<sup>7</sup> on the matter, the Maryland Public Service  
21 Commission stated that “although the Commission does agree with WGL

---

<sup>6</sup> Dismukes, David E., Ph.D., Direct Testimony on Behalf of the Maryland Office of People’s Counsel, Case no. 9267, filed July 27, 2011

<sup>7</sup> Maryland Public Service Commission Order No. 84475 issued on November 14, 2011

1 [Holdings, Inc.] that "safe and reliable infrastructure is its highest priority,"  
2 it maintains that 'infrastructure investments do not justify a surcharge' to  
3 be imposed on customers. The Maryland Commission authorized WGL  
4 Holdings, Inc. to implement the initial phase of its proposed accelerated  
5 natural gas pipe replacement plan but stated that it would address cost  
6 recovery in appropriate future rate cases.

7

8 **Q. Doesn't the SIB adopted in the AWC Eastern group settlement**  
9 **agreement have an efficiency credit that provides a reduction that is**  
10 **similar to the O&M credit discussed above?**

11 **A.** Yes. However, as RUCO's Director, Patrick J. Quinn, stated during the  
12 Phase 2 AWC Eastern Group hearing, the SIB efficiency credit does not  
13 go far enough.

14

15 **Q. Does your silence on any of the issues, matters or findings**  
16 **addressed in the testimony of the Applicants' witnesses constitute**  
17 **your acceptance of their positions on such issues, matters or**  
18 **findings?**

19 **A.** No, it does not.

20

21 **Q. Does this conclude your direct testimony on Global Utilities' rate**  
22 **case filing?**

23 **A.** Yes, it does.

# **ATTACHMENT A**

[Home](#) > [Resolutions](#) > Water Company Infrastructure Costs

National Association of State Utility Consumer Advocates  
R E S O L U T I O N

Discouraging State Regulatory Commissions from Adopting Automatic  
Adjustment Charges for Water Company Infrastructure Costs

WHEREAS, certain regulated water companies have recently proposed mechanisms for automatically increasing water rates, prior to regulatory review, based upon isolated items of expense related to infrastructure projects; and WHEREAS, the National Association of State Utility Consumer Advocates (NASUCA) believes that public interest is still best served by rate of return regulation of investor-owned water companies and that such automatic adjustment mechanisms contradict several sound rate of return ratemaking principles, including the matching principle, because increases to items of rate base are recognized far outside of the test year from which all other rate base, as well as revenues, expenses, and cost of capital items that are used when calculating rates, allowing 'piecemeal ratemaking' and preventing the recognition of any simultaneous offsetting reductions in other items; and

WHEREAS, automatic adjustment mechanisms also circumvent regulatory review of increases to rate base for prudence and reasonableness; and

WHEREAS, automatic adjustment mechanisms further create bad public policy by eliminating the built-in regulatory incentive to control costs between rate cases and, generates incentives to increase spending in order to avoid reduction of the surcharge which occurs if the water company's authorized return is reached; and

WHEREAS, when an automatic adjustment clause is adopted, rate stability is reduced and proper price signals are distorted by frequent rate increases, and no convincing evidence has been shown to support the claim that the frequency of rate case proceedings is reduced by such clauses; and

WHEREAS, special incentives are not needed in order ensure adequate water quality, pressure, and a proper reduction of service interruptions; and

WHEREAS, automatic adjustment mechanisms can inappropriately reward water companies that have imprudently fallen behind in infrastructure improvements; and

WHEREAS, it is inappropriate to tilt the regulatory balance against consumers and shift business risk away from water companies simply for the purpose of creating an incentive for these companies to fulfill their basic obligation to provide safe and adequate service;

THEREFORE, BE IT RESOLVED, that NASUCA strongly recommends state legislatures and state public utility commissions avoid the implementation of automatic adjustments charges for water company infrastructure costs; and

BE IT FURTHER RESOLVED, that NASUCA authorizes its Executive Committee to develop specific positions and to take appropriate actions consistent with the terms of this resolution. The Executive Committee shall notify the membership of any action taken pursuant to this resolution.

Approved by NASUCA:

June, 1999, Baltimore, Maryland

Submitted By:

NASUCA Ad Hoc Water Committee

Christine Maloni Hoover, PA, Chair  
Wes Blakley, IN  
Robert Brabston, NJ  
John Coffman, MO  
Brian Gallagher, DE  
Donald Rogers, MD  
Dale Stransky, NV  
James Warden, Jr., NY

**ATTACHMENT B**

**BEFORE THE PENNSYLVANIA  
HOUSE CONSUMER AFFAIRS COMMITTEE**

**Testimony of**

**SONNY POPOWSKY  
CONSUMER ADVOCATE**

**Regarding**

**House Bill 744  
Natural Gas Distribution System Improvement Charge**

**Harrisburg, PA  
April 23, 2009**

**Office of Consumer Advocate  
555 Walnut Street  
Forum Place, 5th Floor  
Harrisburg, PA 17101-1923  
(717) 783-5048 - Office  
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Email: [spopowsky@paoca.org](mailto:spopowsky@paoca.org)  
111172**



**Chairman Preston, Chairman Godshall  
and Members of the House Consumer Affairs Committee**

My name is Sonny Popowsky. I have served as the Consumer Advocate of Pennsylvania since 1990, and I have worked at the Office of Consumer Advocate since 1979. Thank you for this opportunity to present testimony to this Committee regarding House Bill 744, which would allow natural gas utilities in Pennsylvania to increase their rates automatically to reflect the capital costs of distribution plant that is added to service between base rate cases. As currently drafted, House Bill 744 would allow automatic increases in rates to reflect the value of new plant additions, but would not reflect reductions in the value of existing distribution plant resulting from depreciation and retirements during the same period. As such, the proposed distribution system improvement charge (DSIC) contained in HB 744 is one-sided and unfair to consumers. In addition, HB 744 contains no limit on the overall level of rate increases that can be obtained by natural gas utilities through these automatic adjustment clauses, which means that rates can be increased indefinitely without a Commission review of the utility's overall base rates. If the General Assembly chooses to proceed with HB 744, then I would respectfully submit that the legislation must be amended in order to correct these flaws.

As you know, the model used to support the proposed natural gas distribution system improvement charge is found in a Public Utility Code provision that was added for water companies in 1996 to allow water utilities to increase rates between base rate cases in order to cover the costs of new distribution improvements. At that time, many water utilities were filing base rate cases almost annually to cover the cost of new infrastructure required to meet state and federal safe drinking water laws.

In contrast, until 2008, several of our major natural gas utilities had not filed base rate cases in decades. Prior to 2008, the last base rate increase for PECO Gas was in 1988, twenty years earlier. The last base rate case filed by Columbia before 2008 was in 1995 and the last Equitable case prior to 2008 was in 1997. To this day, UGI and Dominion (Peoples) have not filed a base rate case since 1995. I am not aware of any evidence that these utilities have been unable to maintain safe natural gas service and make necessary infrastructure improvements during those many years in which their base rates remained unchanged. When Pennsylvania natural gas utilities have been able to provide service to customers without increasing their base rates for 10, 15 or 20 years, why would we pass a law that allows them to raise those rates automatically every three months?

This is not a hypothetical question. In November 2007, PECO Gas issued a press release announcing that it had just completed \$12.3 million in upgrades to its suburban Philadelphia natural gas facilities, including the replacement of 58,000 feet of cast iron and bare steel mains. And, PECO Gas did all this without raising its base rates and without a DSIC. In the press release announcing the system improvements that PECO issued on November 6, 2007, the Company stated:

During the past 20 years, PECO has made significant upgrades to its natural gas delivery system and expanded capacity, serving about 7,000 new customers each year – all without an increase in the company's delivery and service charges since 1988. By saving customers money through the use of new technologies, increasing sales, operational mergers and other efficiencies PECO charges remain among the lowest in Pennsylvania.

That is how ratemaking is supposed to work. Between base rate cases, a utility makes needed investments that increase costs, but the utility may also add customers who provide more

revenues, or it may operate more efficiently to reduce costs in other areas. Most importantly, the level of investment in its existing infrastructure goes down in value due to depreciation and retirements. In a base rate case, both the increases and decreases are taken into account.

In a base rate case, all of the utility's costs and revenues are looked at together in order to determine whether the company needs to increase its base rates. In contrast, a distribution system improvement charge simply takes out of context one cost element – the cost of new pipes – and raises the utility's overall rates to reflect that additional cost, without considering any offsetting changes.

It is true that improvements to our natural gas infrastructure cost money, and utilities that make prudent investments that are used to serve the public are permitted an opportunity to recover a return of and earn a fair return on those investments. That does not mean, however, that we need to remove the protections of the Public Utility Code in order to make it easier for utilities to increase their rates between rate cases, without hearings and without any meaningful ability for customers to oppose such increases.

Traditionally, utilities in Pennsylvania and across the Nation have recovered the cost of infrastructure improvements through base rate cases, in which all of the utilities' investments, expenses, and revenues are examined at the same point in time. As I mentioned earlier, in 1996, the General Assembly created an exception to this process for water utilities at a time when water companies contended that they were subject to very substantial new infrastructure requirements. The investments recovered through these surcharges, which are permitted to increase every three months, are subject to Commission audit to ensure that they are correctly calculated and accounted for, but they are not reviewed by the Commission to determine whether the investments are needed or are prudently incurred before their costs are

placed in rates. That is why these provisions are called “automatic adjustment” clauses in both the existing Section 1307 of the Public Utility Code and in the proposed House Bill 744.

Initially, the DSIC surcharges for water utilities were limited by the PUC to no more than 5% of the utility’s revenues, but in 2007, the Commission approved – over the objection of my Office, the Office of Small Business Advocate, the Office of Trial Staff, and the Company’s large industrial customers -- an increase in the DSIC surcharge of Pennsylvania American Water Company (PAWC) from 5% to 7.5%. Indeed, it appears from the Commission’s Order in that case, that the Commission believes it has the discretion to allow the surcharge to increase to 10% or even higher if it chooses to do so.

As you may be aware, PAWC also sought to implement a surcharge for its wastewater (sewer) division called a Collection System Improvement Charge (or CSIC). The PUC approved that surcharge and my Office successfully appealed on the ground that the automatic capital recovery surcharges permitted under the Public Utility Code are limited to water utilities. The Commonwealth Court agreed with my Office that the CSIC was not permitted under the Public Utility Code, but the Court also discussed the policy objections to a clause that allows a utility to recover capital expenditures through an automatic surcharge mechanism. As stated by Judge Leavitt in her Opinion for the Commonwealth Court:

Utility’s Wastewater Charge will entail regulatory oversight that amounts to no more than a mathematical exercise. The after-the-fact audit will require Utility to show only that it did, in actuality, spend the funds for the intended purpose and not, for example, that a new pumping station was needed and was operating effectively.....

.... the “cursory” review undertaken for a surcharge is not a substitute for the review undertaken in a base rate case to determine whether a rate is just and reasonable.

Popowsky v. PA PUC, 869 A.2d 1144, 1156 (Comm. Ct. 2005).

More important than the lack of prior substantive Commission review, in my opinion, is the fact that a surcharge for capital expenditures is contrary to the general concept of just and reasonable rates because it allows recovery of a single cost increase, while ignoring all of the other changes, both positive and negative, that occur between base rate cases. Again, to quote from Judge Leavitt's opinion for the Commonwealth Court in the PAWC CSIC case:

The surcharge is quite different from a base rate. In Pennsylvania, as in most jurisdictions, rates for public utilities are set using what is known as the test year concept, which requires taking a snapshot of the utility's revenues, expenses and capital costs during a one-year period. The object of using a test year is to reflect typical conditions. Test year expenses may be adjusted or normalized where atypical or non-recurring. Under the test year concept, revenues, expenses and capital costs are to be simultaneously reviewed for the same period of time so that a utility may prove its new rates are "just and reasonable."

869 A.2d at 1152.

Unlike a traditional base rate case, in which all costs and all revenues are considered simultaneously, a DSIC is a one-way street that can only increase rates between rate cases, even if a utility's other costs are going down or its revenues are going up. In setting utility rates, it is important to look at all the utility's costs and revenues, not just a single utility cost item that may be added between rate cases.

While I strongly oppose the enactment of a DSIC, I would respectfully urge the General Assembly to consider a number of amendments to House Bill 744 in the event that the General Assembly chooses to go forward with this legislation.

First, I would suggest that the DSIC should only reflect the net increase in distribution plant between rate cases; that is, the cost of new capital additions in the relevant

categories, minus the depreciation and retirements from the same categories of plant during the same time period. In that way, if a natural gas utility is truly making substantial new capital additions that exceed the normal reductions in plant value that occur between rate cases, then the company can charge the customers a positive DSIC. Second, there should be a percentage cap on the total level of DSIC rate increases, and that cap should be based on the utility's distribution revenues, not on total revenues, which include highly volatile natural gas commodity costs that are not related in any way to the distribution system improvements. I would suggest that the cap be set at 5%, which is where the PUC initially set the cap for the water DSIC's, but which the Commission subsequently allowed Pennsylvania American Water Company to increase to 7.5%. Third, I would propose that any natural gas DSIC be preceded by a full base rate case in which the company's total costs and revenues would be examined by the PUC before any automatic increases are permitted. In that way, a utility that has not filed a base rate case in 15 years could not simply walk in to the Commission and start increasing its rates every three months without any prior examination of whether its current rates are just and reasonable.

In order to assist the members of this Committee I have attached three amendments to this testimony that I believe would address these issues. As always, I would be pleased to work with the members and staff of this Committee to develop legislation that I hope would best serve Pennsylvania's utility consumers.

Thank you again for permitting me to testify at this hearing. I would be happy to answer any questions you may have at this time.

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AMENDMENTS TO HOUSE BILL NO. 744

Printer's No. 830

Amend Section 2, page 2, line 25, by inserting after "of"

          the net change in

Amend Section 2, page 2, line 30, by inserting after "proceedings"

          , minus any decreases in net distribution plant resulting from depreciation and  
          retirements of the same categories of existing distribution plant during the same  
          period.

Amend Section 2, page 3, by inserting between lines 4 and 5

(3) The revenue collected in any year pursuant to an automatic rate  
adjustment mechanism established pursuant to this subsection shall not exceed  
five percent of the amount a natural gas distribution company billed its customers  
for distribution service in the previous calendar year.

Amend Section 2, page 3, line 4, by inserting after "mechanism"

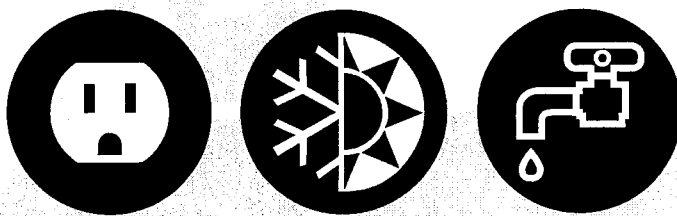
The commission shall include as part of that regulation or order a  
requirement that a natural gas distribution company shall not initially establish an  
automatic rate adjustment mechanism pursuant to this subsection unless the  
commission has established the natural gas distribution  
company's rates in a general rate case as set out in section 1308(d) (relating to  
voluntary changes in rates), filed after the effective date of this subsection.

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**ATTACHMENT C**



# Increasing Use of Surcharges on Consumer Utility Bills



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## EXECUTIVE SUMMARY

For many consumers, home utility bills are becoming more and more cluttered with new fees and surcharges to pay for everything from the investment in new gas pipelines to environmental compliance costs. The imposition of these surcharges are a departure from the traditional utility rate setting process, and regulators need to carefully evaluate utility requests for additional surcharges on a case-by-case basis to determine whether there is a proper balance of meeting utility needs and assuring ratepayer protections.

A surcharge is an additional fee imposed on a ratepayer's utility bill in addition to the base rate charge for utility service. In the past, surcharges were only approved by regulators in rare circumstances to address substantial, volatile and uncontrollable costs that, if *not* addressed outside of a base rate case, could threaten to harm a utility's financial health. Examples of such surcharges include fuel and purchased power adjustment mechanisms for electric utilities and gas cost recovery mechanisms for natural gas distribution utilities. In recent years, however, requests for other types of surcharges and tracking mechanisms by utilities have significantly increased.<sup>1</sup> Indeed, the National Regulatory Research Institute characterizes the use of cost trackers and mechanisms as the "latest trend."<sup>2</sup>

Utilities have requested surcharge rate mechanisms as a means to accelerate the recovery of a variety of costs, many of which are not volatile or uncontrollable. In some instances, the use of surcharges and other tracking mechanisms have proliferated so as to be baffling and expensive for consumers and burdensome for regulators to monitor.

Utilities say the surcharges are needed so they can make investments in aging infrastructure and comply with environmental regulations, among other claims, without compromising their financial health. Utilities also claim that the surcharges will result in smaller and less frequent rate increases as well as reduce the frequency of their general rate cases, which can be time consuming and costly to process.

But the increasing imposition of surcharges and other alternative ratemaking mechanisms can also defeat some of the primary principles of the rate-setting and regulatory review process. Besides increased costs to consumers, surcharges can also result in such additional undesirable consequences as reducing utility incentives to control costs and shifting utility business risks away from investors and onto customers.

Regulators need to carefully evaluate utility requests for additional surcharges on a case-by-case basis to determine whether there is a proper balance of utility and ratepayer needs. If the regulator decides to approve a utility's request to impose new surcharges on ratepayers, adequate safeguards to protect consumers are a must.

## INTRODUCTION

For many consumers, home utility bills are becoming more and more cluttered with new fees and surcharges to pay for everything from the investment in new gas pipelines to environmental compliance costs. Not only are these charges often confusing and frustrating to consumers, they also represent a shift from the traditional utility ratesetting process. A surcharge is an additional cost added to utility customers' bills. Surcharges are also referred to by other terms such as riders, adjustment clauses, recovery mechanisms, and cost trackers. The proliferation of additional fees and surcharges generally shifts risks away from utility investors and onto consumers. This report describes why consumers should be concerned about the shift toward utilities collecting more costs outside of the traditional rate structure. Descriptions of some types of fees and surcharges proposed and/or collected by the nation's major utilities are outlined in Appendix I of this report.

## HOW FEES AND SURCHARGES DIVERGE FROM THE TRADITIONAL METHOD OF SETTING UTILITY RATES

Utilities must petition state regulators to increase utility rates. Utilities submit a formal request to regulators containing their proposed rates to charge customers. The utility's request is reviewed in a formal proceeding, which is called a "rate case." Interested parties, such as representatives of residential or business customers, are allowed to intervene and review the utility's documentation to determine if the utility's request is reasonable. The case is resolved by a hearing and the regulators issue a formal decision.

The utility's requested rate is called a "revenue requirement" which is the amount necessary for the utility to cover its financial obligations associated with providing safe, reliable service to customers, along with earning a reasonable "return." Basic accounting and ratemaking principles serve as the foundation in setting rates to be charged by utilities to provide safe, reliable service. The primary purpose of utility ratemaking is to establish rates that allow a utility to recover its prudently<sup>3</sup> incurred operating and maintenance expenses, plus a fair return on its investment in assets that are used and useful<sup>4</sup> in providing utility service. Rates are calculated based on a "test-year" which is a 12-month period to be representative of operating conditions when the rates being established will be in effect.<sup>5</sup> Utilities are generally required to "net" all costs and benefits of operation at the time rates are set to avoid "cherry-picking" individual cost increases that may be offset by other cost decreases.<sup>6</sup> Under traditional ratemaking, utilities cannot change rates charged to customers outside of a rate case.<sup>7</sup>

Consumers are most familiar with seeing the "base rate" charge on their bills. The base rate is defined as the rate gas and electric utilities charge customers for the cost of providing safe and reliable service, which includes an opportunity for the utility to earn a fair return on its prudently incurred utility plant investment. The base rates are set by state regulators in a rate case, and are often segregated between the basic service charge, distribution, transmission and, for electric service, generation.<sup>8</sup>

In addition to base rates, most utilities assess a fuel surcharge (gas cost adjustment or fuel and purchased power adjustment) and revenue-based taxes in addition to the base rate charge. Typical “standard” charges that appear on a customer’s electric utility bill may include:

- Customer Charge: The basic charge to recover costs for billing, meter reading, equipment, maintenance, etc. (state regulated)
- Generation Charge (or Commodity Charge): Charges for the production of electricity, based on usage (state regulated in non-deregulated states)
- Transmission Charge: Charges for moving high voltage electricity from a generation facility to the distribution lines of an electric distribution company [regulated by the Federal Energy Regulatory Commission (“FERC”)]
- Distribution Charge: Charges for the use of local wires, transformers, substations, and other equipment used to deliver electricity to end-use consumers from the high voltage transmission lines (state regulated, only shown as a separate charge in deregulated states)
- Fuel and Purchased Power Charges
- State Taxes

Typical standard charges that appear on a customer’s gas utility bill may include:

- Customer Charge
- Gas Transmission or Distribution charge
- Commodity Charge
- Purchased Gas Adjustment (true-up)
- State Taxes

Other fees and surcharges fall into the category of “single issue ratemaking,” which is a deviation from traditional ratemaking. Single issue ratemaking involves “singling out” specific expenditures from a company’s base rates and allowing a utility to separately recover those costs from ratepayers. Singling out specific costs can make the traditional ratemaking formula unbalanced. For example, if a utility replaces a large piece of equipment at its plant, the new equipment will affect multiple aspects of the business. The utility’s rate base plant will increase, and revenues may increase, if the plant addition is to serve new customers. Future maintenance expenses may decrease if the addition improves efficiency. The lower maintenance costs, which would reduce rates for ratepayers, may not be reflected within a surcharge that focuses only on the new investment.

In the past, single issue ratemaking was typically approved by regulators only in limited situations for costs that were considered:



1. Largely outside the control of the utility,
2. Unpredictable and volatile, and
3. Substantial and reoccurring, and which would have the potential to adversely impact the utility's financial health if cost recovery is not addressed outside of a traditional rate case.

Examples of such volatile and unpredictable costs traditionally include fuel costs and purchased power costs for electric utilities, and purchased gas costs for gas utilities. In contrast, capital investments for plant additions or replacing aging infrastructure are not generally considered to be highly volatile, uncontrollable and/or unpredictable. Management can control these costs to some extent by comparison shopping materials and contractors. The timing of projects can also be adjusted based on availability of funds.

Yet in recent years, many other types of costs are being proposed by utilities to be recovered through surcharges that do not meet the above criteria.<sup>9</sup> The National Regulatory Research Institute characterizes the use of cost trackers and mechanisms as the "latest trend."<sup>10</sup>

Allowing a utility to recover lost revenues or discrete increased costs through a surcharge can also diminish the utility's incentive to control or reduce expenses because the utility is assured of full cost recovery. Since the utility is passing the cost on to customers, it has less incentive to seek ways to reduce the expense. Furthermore, in a rate case, the utility's costs are carefully scrutinized, whereas cost increases recovered in surcharges can become part of utility rates on an expedited basis, without being subjected to the same degree of review. In rate cases, utilities must provide documentation justifying its requested costs or they may be disallowed. Reviews of costs recovered via surcharges are usually done on a much more limited basis. By allowing a utility to recover cost changes through a surcharge, rider or balancing account, the utility is assured of the recovery of such costs, therefore diminishing the utility's incentive to control expenses, and reducing the utility's financial risk.

## **SURCHARGES, TRACKERS AND OTHER COST RECOVERY MECHANISMS**

### **DEFINITIONS**

There are different types of "single issue ratemaking" which include surcharges, trackers, riders, and other cost recovery mechanisms.<sup>11</sup>

**Surcharge:** A surcharge allows a utility to separately charge customers for costs that would have otherwise been part of the utility's standard base rates. This means the utility recovers dollar-for-dollar the level of costs incurred or estimated to be incurred. A surcharge appears as an additional charge on a ratepayer's utility bill, above and beyond the base rates, fuel surcharge and taxes. Some surcharges are a flat rate while others fluctuate, either based on usage or changes in the surcharge rate.

Surcharges are also referred to as riders, adjustment clauses, recovery mechanisms, and cost trackers, etc. Many utilities use the term “rider” in their tariffs with respect to surcharges. However, some utilities use the term “rider” to designate rates for a particular class of service. For example, Georgia Power defines “rider” as a modification to an existing tariff rate.<sup>12</sup> In these instances the “rider” is a type of rate on a customer’s bill associated to that type of specific utility service, rather than an additional “surcharge”. Therefore, one must read the Company’s applicable tariff sheet to understand what the rider or surcharge actually represents. Utility tariff sheets may be written in technical language, and this may be hard to understand for many consumers.

Sometimes the entire cost recovered by a surcharge is excluded from base rates and recovered separately through the surcharge (e.g., fuel costs). In other instances, only the incremental portion or the difference between what is included in the base rates and the changes in the cost (e.g., in some states vegetation management or storm damage costs) are recovered through the surcharge. For instance, if a utility is allowed to recover \$10 million in base rates for tree trimming expenses, but actually spends \$11 million, and the utility has a surcharge mechanism in place for such costs, the \$1 million difference would be assessed as a surcharge to ratepayers.

A surcharge can either be a fixed rate or adjusted periodically as the cost element it covers changes (i.e., monthly, quarterly or annually). Changes in costs addressed by the surcharge are typically reviewed by regulators periodically (e.g., annually or quarterly). However, the level of review of utility costs charged to customers through surcharges is usually *more informal*, expedited and less rigorous than in contrast to the in-depth review that would typically be conducted in a full utility rate case.

For example, in a recent utility case in Nebraska the utility requested three adjustment mechanisms (weather normalization, a billing adjustment factor and an inflation factor). However, the state regulator denied the surcharges:

Such automatic mechanisms can lead to excessive rates, an inappropriate shifting of risks from stockholders to ratepayers, and decreased incentives to operative efficiently.

...

Therefore the rate mechanisms should be denied.<sup>13</sup>

**Balancing Accounts:** Another form of single issue ratemaking, referred to as “balancing accounts,” also can result in new surcharges on bills for utility service. A balancing account tracks the difference in a certain cost allowed in base rates and the actual cost.<sup>14</sup> California is one state regulatory jurisdiction that makes extensive use of balancing accounts.<sup>15</sup> The ratemaking regime in California has become particularly complex. The extensive use of balancing accounts and cost trackers has made it challenging and difficult for the regulators to adequately audit the proliferation of special mechanisms being used by utilities. California utilities have a traditional three-year General Rate Case (“GRC”) cycle, though the cycle has been extended beyond that in some instances. The utility’s base rates are developed using



forecasted amounts and typically are adjusted annually for inflation. An added complexity is that many issues affecting the utility's base rates may also be addressed separately in other dockets. The California utilities also utilize a variety of mechanisms to recover costs separately from base rates: surcharges, adjustment mechanisms, balancing accounts and memorandum accounts.<sup>16</sup>

Some believe that the use of balancing (and memorandum accounts) by California utilities has become excessive. A recent California American Water Company ("CalAm") General Rate Case demonstrates how the use of surcharges and other alternative rate mechanisms can get out of control. In Application No. A.10-07-007, CalAm had 79 existing balancing and memorandum accounts. CalAm had requested six additional balancing and memorandum accounts, which if approved, would bring the total to 84. The Department of Ratepayer Advocates ("DRA"), which is charged with looking out for the consumer interest, acknowledged that it did not have the resources to fully review the Company's numerous accounts:

These advice letters are generally approved without audit. There is little opportunity to review the recorded amounts for reasonableness before the balances are recovered, unless DRA requests the opportunity to audit the balances or request for a suspension of the advice letter.<sup>17</sup>

Exhibit 1 is a table summarizing the number of balancing and memorandum accounts utilized by some of the larger California utilities:<sup>18</sup>

EXHIBIT 1				
UTILITY	BALANCING ACCOUNTS	MEMO ACCOUNTS	OTHER ACCOUNTS	TOTAL
Southern California Edison (SCE)	21	24	16	61
Southern California Gas Co. (SoCal)	22	24	10	56
San Diego Gas & Electric (SDG&E)	22	33	7	62
Pacific Gas & Electric (PG&E)	32	35	15	82
California American Water Company	*	*	*	79
Golden State Water Company	9	29		38
Total Accounts for Regulators to Review	106	145	48	299
* Information regarding the breakdown of the different accounts was not located; as noted above, CalAm's requests, if approved, would increase the total to 84.				

Trackers: Another single issue ratemaking mechanism is a “tracker” which involves recording or “tracking” costs in a specified account, which are later reviewed by regulators. The costs are not initially included in the utility’s base rates, but are accumulated or “set aside” for future review. They may be incorporated into the development of the utility’s base rates in its next base rate case or may show up as a separate charge on ratepayers’ bills. This type of mechanism is sometimes utilized to “track” whether the authorized level is being spent. In some situations, underspending by a utility of a “tracked costs” is eventually returned to ratepayers.

An example of utility expenses that have been “tracked” are vegetation management (tree trimming) costs. For example, a utility may have issues with its reliability and regulators may decide to monitor the level of the utility’s tree trimming expenditures as a means of assessing whether the utility is conducting an adequate level of maintenance near its wires and poles.

Another example of a cost that has been “tracked” and deferred by a utility for future review are storm damage costs. A utility may incur substantial repair costs to its distribution system as a result of a catastrophic storm. Some utilities have petitioned regulators to accumulate and defer the extraordinary storm repair costs for review and inclusion in rates at a later date, rather than merely recording such costs as expenses in the current period, which may result in utility investors bearing the risk of such costs if they result in the utility reporting lower earnings for that accounting period.

Depending on the definition of “tracker” in a particular jurisdiction, by allowing a utility to recover costs through a tracker account, the utility may effectively be guaranteed recovery of the tracked expense. Sometimes the deferrals are limited to a pre-specified level; in other cases, the subsequent recovery by the utility of the tracked cost may be subject to an “earnings test”. An earnings test may prevent the utility from subsequently charging all of the tracked/deferred costs to ratepayers if it would result in excess earnings.

## **SURCHARGES HAVE BEEN IMPOSED THROUGH REGULATION AND LEGISLATION**

A utility must obtain permission from its state regulator to apply an additional surcharge to customers’ bills. Typically, a utility will present the mechanics for its proposed surcharge to the regulator for approval. Consumer advocates and intervenors may participate in the proceeding and make recommendations to adjust or modify the utility’s proposal. The regulator will weigh the information and make its decision. Again, if a surcharge mechanism is approved, there are time and resource limits to the review of the costs, making it difficult for intervenors to participate. Once cost categories are approved for recovery in a surcharge, the categories can no longer be questioned, and the only aspect that can be disputed is whether the level of such costs are reasonable and prudently incurred to provide utility service. Some jurisdictions allow use of surcharges consistently between utilities, while others approve surcharges on a case-by-case basis.

In several states, surcharges have been adopted through legislation, often requiring the use of a surcharge and limiting the discretion of regulators. An example of where legislation now limits what the state utility regulatory commissions can do is the state of Virginia. Virginia has passed legislation allowing utilities to recover many types of costs through surcharges, includ-

ing environmental costs, costs for constructing new generation, generation and demand side management, and other types of costs.

In Utah, legislation has been passed allowing gas or electric utilities to recover the costs of major plant additions by filing an application for approval of a major plant addition within 150 days from the capital addition's scheduled in-service date. The statute defines "major plant addition" as "any single capital investment project of a gas corporation or an electrical corporation that in total exceeds 1% of the gas corporation's or electrical corporation's rate base."<sup>19</sup>

On October 26, 2011, the Illinois legislature overrode the Governor's veto of Senate Bill 1652, which became effective as Public Act 97-0616. Among those changes was the addition of a new Section 16-108.5 entitled "Infrastructure Investment and Modernization; Regulatory Reform." This legislation provides for utilities to file for a performance based formula rate plan process. On November 8, 2011 Commonwealth Edison Company, the state's largest utility, filed for a new tariff called Rate DSPP (Delivery Service Pricing and Performance), pursuant to that legislation. A formula rate plan is a mechanism or "formula" which resets a utility's rates annually, and is used in place of a rate case.

Due to the utility mergers and acquisitions over the years, many local utilities are now subsidiaries of large holding companies that have utility operations in multiple state jurisdictions. These large corporations have the resources to effectively lobby their positions to benefit their operations.

American Electric Power Company ("AEP"), one of the nation's largest electric utilities, affirms this by stating in its 2010 Form 10-K:

Given the long lead times in construction, the high costs of plant and equipment and difficult capital markets, we are actively pursuing strategies to accelerate rate recognition of investments and cash flow. AEP representatives continue to engage our state commissioners and legislators on alternative ratemaking options to reduce regulatory lag and enhance certainty in the process.

As another example, Xcel Energy, stated in its 2010 Form 10-K that:

Xcel Energy files periodic rate cases and establishes formula rate or automatic rate adjustment mechanisms with state and federal regulators to earn a return on its investments and recover costs of operations.

A utility's proposal for cost recovery under the legislatively authorized mechanisms are typically reviewed via the regulatory process, albeit on a limited basis, as described above. The review may be primarily performed by utility commission staff as active participation in reviewing a proliferation of utility surcharges by resource constrained consumer advocate groups is difficult to sustain.

Exhibit 2 is a table summarizing types of costs utilities are charging customers through surcharges. This is not a comprehensive listing, but rather a summary to illustrate various types of surcharges that were identified in the process of preparing this report.

EXHIBIT 2: EXAMPLES OF SURCHARGES	
DESCRIPTION	STATES
Aging infrastructure	GA, KY, MO, NJ, OH
Decoupling/Weather Normalization	CA, GA, KS, KY, LA, MD, MS, NJ, NV, TN, TX, VA
Energy Efficiency/DSM/Conservation	CA, OR, MD, MA, SC, NC, IN, AR, KY, MI, OH, OK, TX, CO, IA, GA, FL, IL, MO
Environmental Compliance	WA, DE, NJ, IA, IN, KY, MN, SD, MI, OH, TN, TX, VA, GA, NJ, IL
Franchise Fees	MN, TX, AR, KY, LA, MI, VA, WV, GA, NJ, TN, IL, CO
New Plant (Coal, Nuclear)	AL, AR, GA, IN, MS
Pension/OPEB	MA, SC
Property Taxes	KS, MS
Renewable Energy	IL, NC, OH, MA, CA, IA, OR, UT, WA, CO, MN, NM
Smart Meters/Smart Grid	CO, OH, TX
Storm Damage	MA, OH, OK
Stranded Costs	CT, NH, NJ, MA
System Reliability/Vegetation Management	KS, OH, OK, TN, TX
Transmission Investment	OH, TX, VA
Uncollectibles	IA, IL, OH, NV
Universal Service/Low Income	AZ, CA, CO, DC, TX, GA, IL, OH, OR, UT, WA, MD

## WHY DO SURCHARGES, RIDERS AND ADJUSTMENT MECHANISMS PUT CONSUMERS AT RISK?

In many instances surcharges are unnecessary and are not beneficial to ratepayers. Surcharges are costs added to utility customers' bills in addition to the basic charge for providing safe and reliable utility service. Surcharges can effectively guarantee utilities recovery of their fluctuating costs, thereby, shifting financial risk away from the investors and onto consumers. The surcharge is often applied to consumers' bills without first being subject to a thorough review by regulators and consumer groups. Additionally, some surcharges may recover costs that are not necessary for providing basic safe and reliable service. Surcharges may put consumers at risk for being overcharged by utilities for basic utility service.

Reasons why surcharges pose a risk for consumers include:

### REDUCES THE UTILITY'S INCENTIVE TO CONTROL COSTS

In a rate case a utility is allowed a reasonable level of revenues to recover its operating expenses as well as an opportunity to earn a fair return on its prudently incurred investment in used and useful plant. In between rate cases, the benefit of any cost reductions would flow back to the utility as higher profits. For costs that are to be "tracked" through a surcharge, the utility is usually required to return any under-spending to ratepayers, so the utility is not benefitted by cost-cutting efforts. The surcharge can thus remove or reduce the utility's incentive to reduce costs. Guaranteeing recovery of a specific expense reduces the utility's incentives to control costs, and thus shifts the burden of cost increases between rate cases from shareholders onto ratepayers.

### REVIEW OF SURCHARGES IS TYPICALLY MORE LIMITED

Utilities typically submit reports to regulators for costs recovered via a surcharge on an annual or quarterly basis. This usually involves submitting some calculations and workpapers identifying and supporting the amounts. The review by regulators is typically conducted on an expedited basis, as opposed to the thorough review that would typically occur in a full rate case. In rate case, a thorough review of costs can also be conducted by intervening parties, and the utility must adequately support its costs or they risk being disallowed.

### VIOLATION OF THE MATCHING PRINCIPLE, A FUNDAMENTAL ACCOUNTING AND RATEMAKING PRINCIPLE

A key concept in accounting and ratemaking is the matching principle. The matching principle involves matching revenues with related expenses and investments in the time period they occur. Accounting and ratemaking require the cost of capital investments to be spread over the period in which they will be used. Capital investments, such as replacement of equipment at the utility's plant can produce efficiencies such as reducing future O&M costs or enable new revenues. If the cost of the capital expenditure is recovered through a surcharge, these efficiencies may not be captured in the surcharge. Recovering capital investments via a surcharge can thus violate the matching principle.

### UTILITY MAY OVER-COLLECT THESE COSTS

In some cases, the utility may overestimate the costs to be recovered. Therefore, it may over-collect these costs from ratepayers. For example, if a utility collects a surcharge to fund

the cost of a new plant or a large piece of equipment while it is still being constructed, the amount being collected from customers may be more than the actual cost. While the funds should ultimately be returned to ratepayers, until then, these funds can be used by the utility and represent a source of cost-free capital to the utility.

For example, San Diego Gas & Electric Company stated in its current 2012 general rate case (“GRC”), in its direct testimony, that its Advanced Metering Infrastructure Balancing Account (AMIBA) was forecasted to be \$48.546 million overcollected on the electric side and \$6.33 million overcollected on the gas side at December 31, 2011. This means that the utility collected \$54.876 million more from customers than it needed. The Company also stated that it forecasted its Distribution Integrity Management Program Balancing Account (DIMPBA) and Research Development & Demonstration Expense Account (RDDEA) to be over-recovered by \$3.304 million and \$0.191 million, respectively. The RDDEA was authorized in D. 08-07-046 and went into effect on January 1, 2008. The Company was collecting the surcharge from customers for most of the year; however, the Company stated the related R&D program spending did not begin until late in 2008.<sup>20</sup>

There is also the risk that overpayment of costs may be not be returned to customers, because if the surcharge costs are reviewed only on a cursory basis, any errors or overcharges may not be detected and/or returned to customers.

#### JUSTIFICATIONS FOR SURCHARGES DO NOT HOLD UP

Below are some reasons utilities may use to justify the use of surcharges, along with a comment concerning why the reasoning may be invalid.

#### FREQUENCY OF GENERAL RATE CASES

Utilities may cite reduced frequency of general rate cases, which can be costly to litigate, as a reason for surcharges. The purpose of general rate cases is to thoroughly evaluate the utility’s rates and costs for reasonableness. Eliminating or bypassing that opportunity to review the utility’s costs may result in costs being charged to ratepayers without adequate regulatory scrutiny. Implementation of surcharges may also result in burdening regulators with additional work, as they will need to review these surcharges between general rate cases.

#### “RATE SHOCK”

Utilities will sometimes argue that surcharges and trackers reduce “rate shock” because the surcharge produces smaller, more frequent rate increases, rather than a future sharp hike in rates from a base rate case. In a rate case, many factors comprise a utility’s base rates: capital structure, capital investments, and operating expenses. While some costs may increase, they could be offset by decreases in other expenses. A rate case review may not necessarily result in a rate increase. A utility may be found to be over-earning and rate decrease may be ordered. Therefore, one cannot assume that utility base rate cases will always result in larger rate increases.

#### AGING INFRASTRUCTURE

Many utilities have requested surcharges to recover the costs of investments to upgrade aging infrastructure. However, utility capital expenditures are not volatile or outside the control of a utility. Management is able to influence the timing and extent of these costs. Utilities, similar to

other non-regulated companies, issue bids for large scale projects to evaluate the most cost-effective options. Maintaining and upgrading the utility infrastructure is a normal aspect of operating a utility. Also, cost efficiencies may result from the improvements, but such savings may not be recognized as an element that reduces the surcharge.

#### COMPLIANCE WITH ENVIRONMENTAL REGULATIONS

Similarly, a utility might cite expenditures that it must make to comply with environmental regulations as a reason to implement a surcharge. This is not a new concept. Environmental regulations have been in existence for many years and are continuously evolving. Complying with environmental regulations is also a normal aspect of operating a utility. How best to deploy capital and O&M resources to comply with these regulations is not entirely outside the control of a utility. Also, cost efficiencies associated with the environmental investment may not be recognized as an offsetting element that reduces the surcharge.

#### SITUATIONS WHERE TRACKING MECHANISMS BENEFIT CUSTOMERS

There have been limited situations where surcharges have benefited customers. As one example of this, in the 1980s, Entergy implemented a return sharing mechanism in Arkansas which was primarily weather driven. The effects of the hot summer weather that had not been captured in the base rate case generated higher revenues for the Company and customers received credits on their bills.

#### RECOMMENDED CONSUMER SAFEGUARDS

When regulators are considering whether to allow certain expenditures to be recovered via a surcharge or other special rate mechanism the following consumer protections should be considered, and included, if a surcharge is approved:

##### COST RECOVERY SHOULD BE SPECIFIC

If a surcharge is approved, it should be strictly for the specific expenditure. The surcharge should not contain multiple types of costs or be vaguely defined, which will make reviews difficult. The surcharge should not be allowed to be expanded at a later date to include additional items. As an example, of surcharge coverage expansion, Atlanta Gas Light was permitted to implement a pipeline replacement surcharge to recover costs associated with implementing an aging pipeline replacement program over a ten year period. The need to replace aging pipe to address safety issues resulted from an investigation of the utility's alleged violations of minimum federal safety standards. Years later, the utility proposed and was allowed to expand this surcharge to include other types of capital costs associated with installing new distribution pipeline and infrastructure upgrades that were not strictly related to addressing the public safety concerns that were the basis for allowing the original surcharge.

##### NUMBER OF SURCHARGES SHOULD BE LIMITED

A utility should not be permitted to have a complex myriad of surcharges and trackers. This defeats the purpose of reducing rate cases and the rate setting process in general and places a bigger burden on the regulator to have to monitor numerous surcharges outside of rate cases.

The extensive use of surcharges, trackers, memorandum accounts, and other recovery mechanisms by California utilities has resulted in an almost overwhelming burden on regulators and consumer advocates.

#### TIME PERIOD OF SURCHARGE SHOULD BE DEFINED, NOT INDEFINITE

The surcharge or tracker should be for a set time period rather than indefinitely. For example, some states have implemented revenue decoupling as a pilot. After the pilot period, regulators can then review the results to determine the cost-effectiveness of implementing the special rate mechanism and determine whether it should continue.

#### MECHANICS OF SURCHARGES SHOULD BE STRUCTURED TO BENEFIT THE RATEPAYER

The surcharge should be structured so that cost overruns are absorbed by the utility and under-spending is returned to ratepayers. Some of the utility cost tacking accounts used by California utilities have this feature. A "one-way" balancing account, for example tracks and returns utility under-spending for the tracked cost (such as tree-trimming) to ratepayers.

#### RELATED COST SAVINGS AND EFFICIENCY IMPACTS SHOULD BE INCORPORATED

If the surcharge is to recover costs associated with replacing plant equipment, or for investments which improve efficiency, an efficiency factor to reflect lower O&M costs should be considered.

#### LOWER RETURN ON EQUITY ("ROE") TO REFLECT REDUCED RISK

A utility's ROE is the return investors expect, or require, in order to invest in the Company. In a rate case, utilities request a specific ROE percentage which is reviewed by the parties and a fair and reasonable ROE is authorized by the Commission. While a utility's ROE is based on several factors, depending on the utility's specific circumstances, a reduction in ROE may be appropriate if a surcharge is approved. A portion of the Company's business risk has been transferred from investors and is now being borne by ratepayers.

#### REDUCE FREQUENCY OF RATE CASES

Many utilities allege that surcharges will reduce the frequency of rate cases or large rate increases. A possible condition for approving a surcharge could be that the utility agrees to not file for a base rate increase for a specified period. Conversely, if a utility has annual rate cases or multi-year rates, a surcharge may not be necessary as the utility's rates are already being adjusted more frequently.

#### AVOID APPROVAL OF NEW SURCHARGES IN A SETTLEMENT

Although settlements are typically non-precedential (i.e., non-authoritative) if a surcharge is approved in a settlement, it may be unlikely or difficult to have it reversed or denied in future proceedings. Also, other utilities may imitate and cite the use by the existing utility as justification for their proposed surcharges for similar costs.

#### AUDIT/REVIEW FOR PRUDENCE AND REASONABLENESS

If a surcharge is approved to recover costs associated with a substantial project such as construction of a new power plant, significant environmental retrofits, or Smart Grid, a recommendation could be made that a full audit or a detailed review of the prudence and reasonableness of the costs should be conducted. For example, the Mississippi PSC is conducting



a prudence review of the costs associated with Mississippi Power Company's (MPCo) Integrated Coal-Gasification Combined Cycle ("IGCC") Plant that is currently under construction in Kemper County. MPCo is proposing to recover the Construction Work In Progress ("CWIP") financing costs associated with the Kemper Project through a surcharge.

## RECENTLY PROPOSED SURCHARGES THAT HAVE BEEN DENIED

Regulators are still relying on traditional ratesetting and have not been persuaded by utilities' requests to implement surcharges. Below is a brief discussion of some recent instances:

### PENSION/OTHER POST RETIREMENT BENEFITS (OPEB)

Narragansett Electric (d/b/a National Grid), Rhode Island; Docket No. 4065 (2010). The Company proposed a mechanism to recover pension and other post employment benefits expense incurred each year over the amount included in base rates. The Rhode Island Commission denied Narragansett's request. The Order stated:

...the Commission finds that this expense is a business risk that should be managed by the Company like any other business risk facing a business enterprise. Also important to note is that the State of Rhode Island, whose pension fund is severely underfunded, has not proposed that the Rhode Island taxpayers be burdened with a reconciling mechanism to ensure adequate funding of the state pension program. The General Assembly has proactively modified the existing plan to address this underfunding by changing the benefit eligibility, increasing the level of employee contributions, among other options under consideration.

Delmarva, Maryland; Docket No. 9093 (2007). The Company requested a Pension and Other Post-Employment Benefits ("POPEB") rider, to capture yearly differences between the pension and OPEB costs embedded in the Company's base rates and the actual expenses properly chargeable to the Company's distribution operating costs. The Maryland Commission denied the Company's request. The final Order stated:

Implementation of a tracker mechanism is an extraordinary form of ratemaking usually reserved for very large expense items that have the potential to impair seriously a utility's financial well-being, which is not the case here for OPEB and pension costs. We therefore deny the Company's request for a POPEB rider.

Delmarva, Delaware; Docket No. 09-414 (2011). Delmarva proposed a surcharge mechanism called a Volatility Mitigation Rider ("Rider VM") to collect a rolling three-year average of pension, OPEB and uncollectible expenses, which it claimed were volatile and largely beyond its control. The Delaware Commission denied the Company's request and stated in its Decision:

These are normal utility expenses; allowing dollar for dollar recovery of them would depart from traditional ratemaking practices and would reduce Delmarva's incentive to try to control them. We also note that our sister commissions in Maryland and

the District of Columbia rejected the same proposal when Delmarva and its affiliates presented it to them, and we find their reasoning convincing. Thus, for the reasons advanced by Staff and the DPA, we reject Delmarva's request to implement Rider VM.

#### ENVIRONMENTAL COMPLIANCE COSTS

Kansas City Power & Light, (KCPL) Case No. 11-KCPE-581-PRE (2011)

KCPL requested recovery of environmental upgrade costs at its La Cygne Plant through a surcharge. The Commission's decision to deny the surcharge was based in part on an observation that "the potential future cost that utility companies will undoubtedly expect customers to bear is presently unforeseeable or speculative at best, but undoubtedly will be significant."

#### DECOUPLING

Many utilities have claimed that they require "revenue decoupling" in order to eliminate disincentives which prevent them from vigorously promoting energy-efficiency.

Despite the utility industry's attempt to convince regulators that decoupling is the latest concept, several states are still reluctant to implement decoupling mechanisms.<sup>21</sup> For example, Connecticut denied two utilities' requests for decoupling, despite legislation enacted permitting decoupling (Connecticut Light & Power; Docket No. 09-12-05; 2010, and Connecticut Natural Gas; Docket No. 08-12-06; 2009).

The following states have also rejected decoupling mechanisms:

- Indiana, Southern Indiana Gas; Cause No. 43839 (2011)
- Montana, Northwestern Energy; Docket No. D2009-0-129 (2011)
- Tennessee, Piedmont Natural Gas; Docket No. 09-00104 (2010)
- Rhode Island, Narragansett Electric (d/b/a National Grid), Docket No. 3493 (2009)

In the above cases, the regulators decided to reject decoupling because benefits to customers were speculative and the risk was shifted away from the company and onto customers.

Notably, the regulator's order in the Narragansett case stated:

Revenue decoupling would protect the Company from revenue declines attributable to any causes, not only conservation and efficiency efforts. . . . Over the last four years, decoupling would have resulted in an additional \$34 million payment to the Company.

One of the concerns about decoupling is that it insulates utilities from economic conditions such as the impacts of a recession. As Dr. David Dismukes has explained:

Decreases in sales associated with economic downturns have nothing to do with energy efficiency programs offered by the Company. Instead, they are the natural reaction of households trying to reduce their expenditures during difficult economic times of, or alternatively, businesses and industries idling or shutting down their operations. Under revenue decoupling, ratepayers would be required to make a utility whole for

revenue losses during these economic downturns, whereas under traditional regulation, utilities bear the risk of these economic contractions, just like many other types of businesses and industries.<sup>22</sup>

On January 26, 2009, Detroit Edison Company (“DTE”) filed an application with the Michigan Public Service Commission (“MPSC”), Case No. U-15768. Among other things, DTE requested that the MPSC approve an electric rate decoupling mechanism and an advanced metering infrastructure (“AMI”) program. Both of those requests were approved by the MPSC in its January 11, 2010 order. On April 10, 2012, DTE’s electric rate decoupling mechanism and the AMI program funding mechanism were rejected by the Michigan Court of Appeals.<sup>23</sup> The Court ruled that the MPSC did not have the authority to direct or approve decoupling for electric utilities, but only had authority to conduct research and report on the operations of a decoupling mechanism with electric utilities. Michigan Statute MCL 460.1097(4) states that:

[T]he commission shall submit a report on the potential rate impacts on all classes of customers if the electric providers whose rates are regulated by the commission decouple rates. . . . The commission’s report shall review whether decoupling would be cost-effective and would reduce the overall consumption of fossil fuels in this state.

The Court also ruled that DTE’s AMI program funding that had been approved by the MPSC “was unreasonable, because it was not supported by ‘competent, material and substantial evidence on the whole record’.”<sup>24</sup> The Court noted that the Manager of the Energy Efficiency Section in the Electric Reliability Division of the MPSC had agreed that the AMI was not commercially tested, and required large amounts of capital, which could result in great economic risk and highly impact rates. No alternative considerations were discussed, nor were the needs for AMI or the net-benefits (if any) to the affected customers. The Court also stated that in reviewing the MPSC’s decision, it “will not rubber stamp a decision permitting such a substantial expenditure—a cost to be borne by the citizens of this state—that is not properly supported.”<sup>25</sup>

#### CAPITAL ADDITIONS

In New Mexico, in a 2011 decision, the commission rejected a stipulated capital additions rider for Public Service New Mexico Company, stating such a rider would represent “a major departure from and violation of the Commission’s long-standing policy against piecemeal ratemaking.”

In a recent Washington Gas Light Company (“WGL”) rate case (Case No. 9267) the Maryland Public Service Commission’s order issued on November 14, 2011 rejected WGL’s request for an automatic surcharge on all customers to improve its distribution system. In denying that request, the Commission found that WGL was capable of carrying out a pipeline replacement program and ensuring the safety and reliability of its distribution system without getting automatic cost recovery through a surcharge:

Although we agree fully with the Company that safe and reliable infrastructure is its highest priority and that it should accelerate its program to replace pipe, we decline to authorize a surcharge for the recovery of future pipe replacement expenses. Based on the record in this case, we find that the Company has historically demonstrated the ability to replace its

infrastructure when necessary to ensure safety and reliability, and that it can do so using traditional ratemaking procedures without compromising its ability to earn an appropriate return. The Company's witnesses confirm that WGL has the operational and financial ability to accelerate its existing pipe replacement program, and we authorize the Company to do so. But the mere fact that the Company plans increased infrastructure investments does not justify a surcharge, which would represent a fundamental shift from long-standing rate-making principles. To the contrary, the record in this case demonstrates that the Company can invest significant amounts in infrastructure and can readily recover those costs in rates with an appropriate return. . . . We recognize that accelerating its pipe replacement program may require the Company to file somewhat more frequent rate cases than it would prefer. That is not, in our view, a negative outcome—rate cases afford all parties, and this Commission, the opportunity to ensure that rates are just and reasonable, and we understand that accelerated infrastructure investment may require more frequent adjustments. But ratepayers and the Company are better served if base rates are adjusted more frequently in smaller increments, and waiting longer between rate cases could lead to other undesirable results, including greater mismatches between costs and rates.

## CONCLUSION

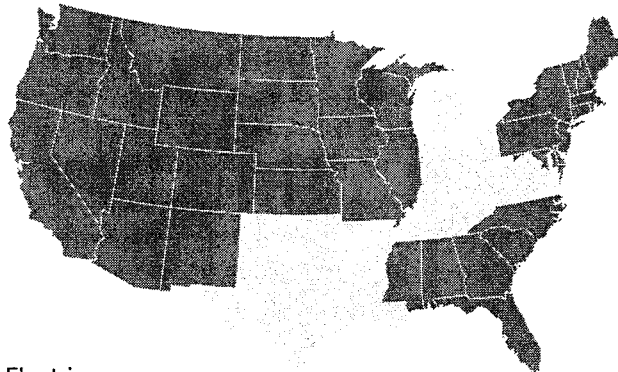
In the past, surcharges were only permitted in limited circumstances for costs that were substantial, volatile and uncontrollable, and that could harm the utilities' financial health. Examples of such traditional surcharges include fuel and purchased power adjustment mechanisms for electric utilities and gas cost recovery mechanisms for natural gas distribution utilities. In recent years, however, requests for surcharges and tracking mechanisms by utilities have significantly increased, for many different types of costs, including capital investments, for specific operating and maintenance expenses and even for revenue losses. In some instances, the use of special rate-making mechanisms such as surcharges and other tracking mechanisms have proliferated to the point of becoming excessive and burdensome for regulators to monitor. The use of surcharges is a deviation from traditional ratemaking and puts customers at risk for overpaying for safe and reliable utility service. The use of numerous alternative ratemaking mechanisms and surcharges can defeat some of the primary principles of the rate-setting and regulatory review process. Surcharges can also result in undesirable consequences, such as reducing utility incentives to control costs, and shifting utility business risks away from investors and onto customers.

## COMPARISON OF SURCHARGES USED BY COMPANIES WITH MULTI-STATE UTILITY OPERATIONS

Many of the larger utility companies serve customers in multiple states. The following section illustrates the surcharges assessed by these companies to residential customers in the states in which the utility provides service. As can be seen from the tables, the use of surcharges for most utilities varies among the states it serves. Some companies have similar surcharges for the states they serve, while the use of surcharges varies among jurisdictions for others. Whether specific surcharges are approved by regulators appears to be based on the regulatory regime in the state, not whether the company has similar existing surcharges in other states.<sup>26</sup> The following sections contain maps illustrating the states in which the utility serves customers.<sup>27</sup>

### AMERICAN ELECTRIC POWER (ELECTRIC)

American Electric Power (“AEP”) Company is headquartered in Columbus, Ohio. The public utility subsidiaries of AEP have traditionally provided electric service, consisting of generation, transmission and distribution, on an integrated basis to their retail customers. AEP has approximately 5.3 million retail customers. AEP serves customers in the following states:



The public utility subsidiaries and jurisdictions of AEP Company include:

- Appalachian Power Company
- Columbus Southern Power Company
- Indiana Michigan Power Company
- Ohio Power Company
- Public Service Company of Oklahoma
- Southwestern Electric Power Company

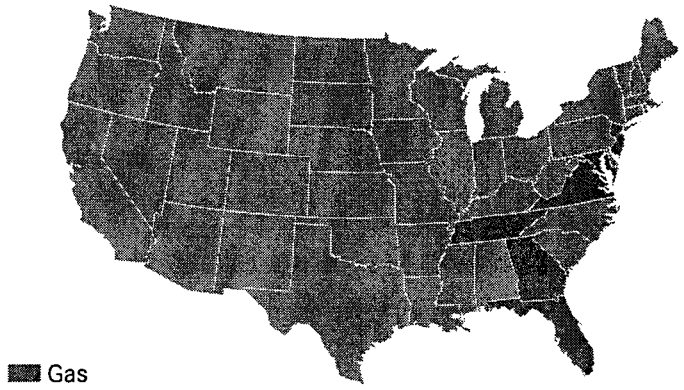
Exhibit 3 is a comparison of costs recovered through surcharges in AEP's jurisdictions:

EXHIBIT 3											
DESCRIPTION	AR	IN	KY	LA	MI	OH	OK	TN	TX	VA	WV
Advanced Metering (Voluntary)									•		
Alternative Generation	•										
Capital Expenditures											•
Capacity Charge			•								
Clean Coal Technology		•									
Energy Efficiency/DSM	•	•	•		•	•	•		•		•
Environmental Investment/ Compliance		•	•		•	•		•	•	•	
Federal Litigation Consulting Fees	•					•					
Franchise/Municipal Taxes	•		•	•	•					•	•
Inspection Fee								•			
Off System Sales		•									
PJM Cost		•									
Rate Case Expense									• <sup>1</sup>		
Reliability Expenditures/ Vegetation Management	•					•	•	•	•		
Sales & Use Tax			•					•		•	
Smart Grid						•					
Storm Expenses							•				
System Benefits/Universal Service									•		
Transmission Cost Recovery						•			•	•	
True-Up Case Expense									•		

<sup>1</sup>Two rate case expense surcharges  
Source: 2010 Form 10-K and tariffs

**AGL RESOURCES (GAS)**

AGL is headquartered in Atlanta.<sup>28</sup> AGL Resources is an energy services company whose principal business is the distribution of natural gas in six states. AGL's six utilities serve approximately 2.3 million end-use customers.<sup>29</sup> AGL serves customers in the following states:



The public utility subsidiaries of AGL Resources include:

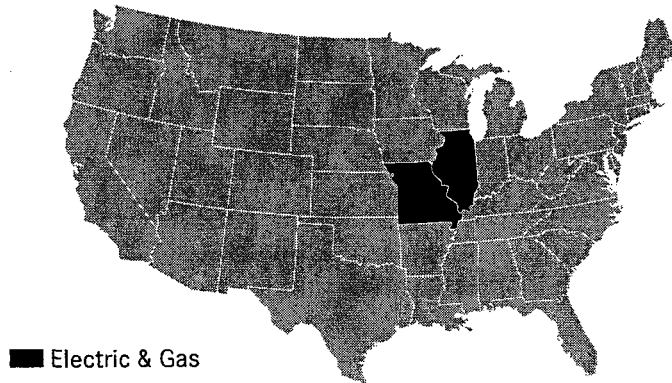
- Atlanta Gas Light
- Chattanooga Gas
- Elizabethtown Gas
- Elkton Gas
- Virginia Natural Gas
- Florida City Gas

Exhibit 4 is a comparison of revenues and costs recovered through surcharges in AGL's jurisdictions.

EXHIBIT 4						
DESCRIPTION	FL	GA	MD	NJ	TN	VA
Conservation	•					
Environmental/Green House Gas Initiative		•		•		
Franchise Fees		•		•	•	
Pipeline Replacement/Utility Infrastructure Enhancement		•		•		
Revenue Normalization			•		•	•
Social Responsibility/Societal Benefits		•		• <sup>1</sup>		
Transitional Energy Facility Adj.				•		
Weather Normalization				•	•	•
<sup>1</sup> In NJ, Societal Benefits includes costs for clean energy program, environmental remediation and universal service Source: 2010 Form 10-K and tariffs						

**AMEREN CORPORATION (ELECTRIC & GAS)**

Ameren is a public utility holding company headquartered in St. Louis, Missouri. Ameren’s subsidiaries operate rate-regulated electric generation, transmission, and distribution businesses, rate-regulated natural gas transmission and distribution businesses, and merchant generation businesses.<sup>30</sup> Ameren has approximately 2.4 million electric customers and 900,000 natural gas customers.<sup>31</sup> Ameren serves customers in Missouri and Illinois.



The public utility subsidiaries of Ameren include:

- Union Electric Company (electric & gas)
- Ameren Illinois (electric & gas)

Exhibit 5 is a comparison of costs recovered through surcharges in Ameren’s jurisdictions.

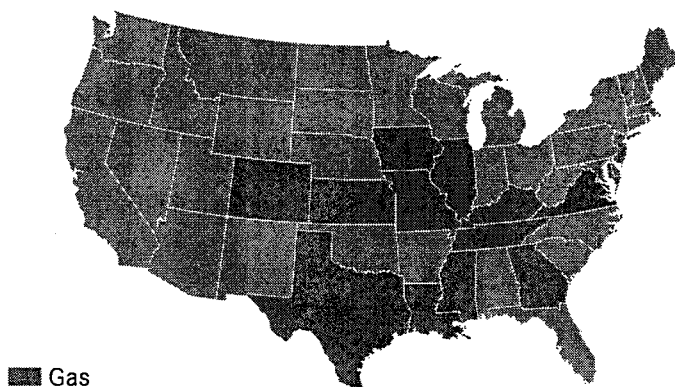
EXHIBIT 5				
DESCRIPTION	ILLINOIS		MISSOURI	
	Electric	Gas	Electric	Gas
Coal Tar Cleanup <sup>1</sup>		*		
Energy Efficiency Costs	*	*		
Environmental Costs	*	*		
Excess Franchise Fees	*	*		
Government Compliance Costs	*	*		
Hazardous Materials (Asbestos)	*			
Infrastructure Maintenance	*			
Infrastructure Replacement				*
Uncollectibles	*	*		

<sup>1</sup>Zone 3 customers only  
Source: 2010 Form 10-K and tariffs



### ATMOS ENERGY CORPORATION (GAS)

Atmos Energy Corporation, headquartered in Dallas, Texas, is engaged primarily in the regulated natural gas distribution and transmission and storage businesses as well as other non-regulated natural gas businesses. The Company's primary service areas are located in Colorado, Kansas, Kentucky, Louisiana, Mississippi, Tennessee and Texas. It also has more limited service areas in Georgia, Illinois, Iowa, Missouri and Virginia. In addition, Atmos transports natural gas for others through its distribution system. Atmos has approximately three million residential, commercial, public authority and industrial customers in 12 states located primarily in the South. Atmos serves customers in the following states:



Atmos' natural gas distribution segments include:

- Mid-Tex Division
- Kentucky/Mid-States Division
- Louisiana Division
- West Texas Division
- Colorado-Kansas Division
- Mississippi Division

Exhibit 6 is a comparison of costs recovered through surcharges in Atmos' jurisdictions:

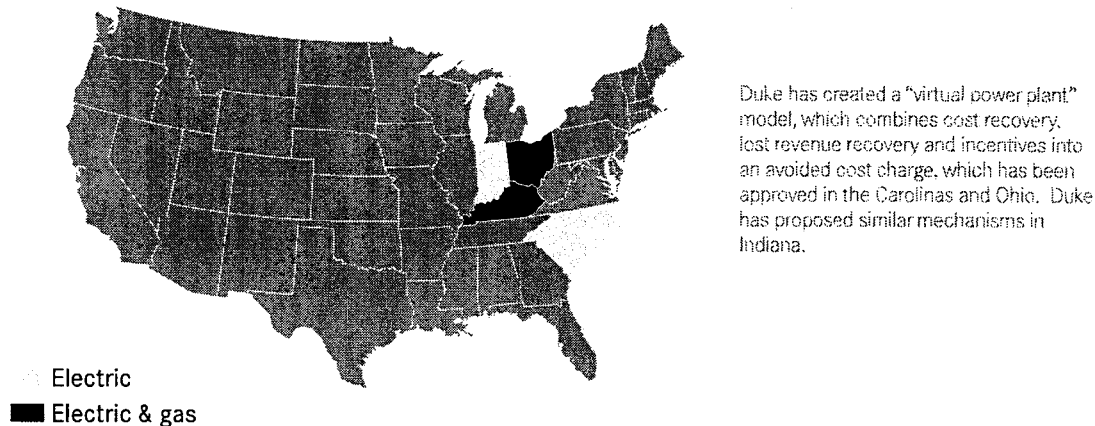
EXHIBIT 6													
DESCRIPTION	CO	GA	IA	IL	KS	KY	LA	MO	MS	TN	MID TX	WEST TX	VA
Ad Valorem					*								
Automated Metering Incentive	*												
Demand Side Management	*					*							
Energy Efficiency			*								*	*	
Environmental										*			
Franchise Fee	*	*											
Low Income				*									
Municipal Fee											*		
Performance Based Rate Mechanism (experimental)						*							
Pipe Replacement		*				*							
Rate Case Expense											*		
Rate Stabilization/ Rate Review <sup>1</sup>							*		*			*	
Renewable Energy				*									
Research & Development <sup>2</sup>						*							
System Reliability					*								
Taxes				*							*		
Transportation Service Cost	*												
Uncollectibles			*										
Weather Normalization		*			*	*	*		*	*	*	*	*

<sup>1</sup>Atmos' Louisiana and Mississippi jurisdictional base rates are based on Formula Rates, which are adjusted annually, as opposed to a rate case.  
<sup>2</sup>Voluntary participation by the Company in R&D funding for Gas Technology Institute or other research facilities.  
Source: 2010 Form 10-K and tariffs

## DUKE ENERGY (ELECTRIC AND GAS)

Duke Energy Corporation is an energy company that operates in the United States primarily through its direct and indirect wholly-owned subsidiaries. The Company is headquartered in North Carolina. Duke Energy supplies and delivers energy to approximately 4 million customers in the U.S.

Duke serves customers in the following states:



The public utility subsidiaries of Duke Energy currently include:

- Duke Energy Carolinas (electric)
- Duke Energy Indiana (electric)
- Duke Energy Ohio (electric and gas)

On January 8, 2011, Duke Energy Corporation ("Duke Energy") entered into a Merger Agreement and Plan of Merger between and among Diamond Acquisition Corporation, a North Carolina corporation and Duke Energy's wholly-owned subsidiary (Merger Sub) and Progress Energy, Inc., a North Carolina corporation.<sup>32</sup> Progress Energy includes two major electric utilities that serve about 3.1 million customers in the Carolinas and Florida.<sup>33</sup> The merger is still pending.

Exhibit 7 is a comparison of costs recovered through surcharges in Duke's jurisdictions:

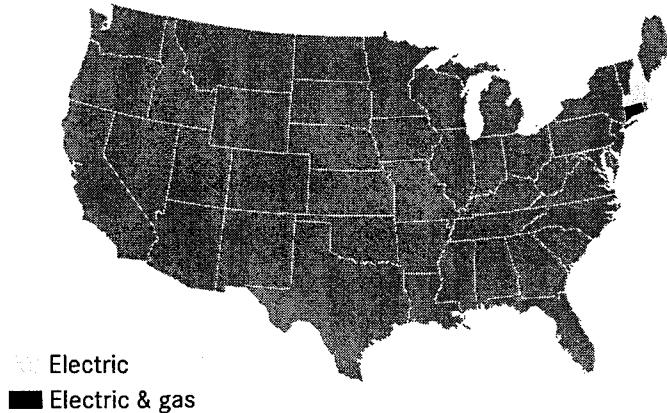
EXHIBIT 7							
DESCRIPTION	KY		IN	NC	OH		SC
	ELEC	GAS	ELEC	ELEC	ELEC	GAS	ELEC
Accelerated Main Replacement						*	
Annually Adjusted Component					*		
Clean Coal Operating Cost Revenue Adjustment			*				
Demand Side Management	*	*	*	*			
Economic Competitiveness					*		
Emmission Allowances			*				
Energy Efficiency				*	*		*
Excise Tax					*	*	
Franchise Fee	*	*					
Infrastructure Modernization					*		
New Generation			*				
Non-fuel purchased power				*			
Off-system Power sales & Emission Allowance Sales Profit Sharing	*						
Pension Costs							*
Pollution Control			*				
Regulatory Transition Charge					*		
Reliability Adj (Capacity)			*				
Renewable Energy				*	*		
State Tax					*		
Storm Recovery					*		
System Reliability Tracker					*		
Transmission Cost					*		
Uncollectible					*	*	
Universal Service					*		

Source: 2010 Form 10-K and tariffs

## NORTHEAST UTILITIES (ELECTRIC AND GAS)

Northeast Utilities ("NU") is a public utility holding company headquartered in Connecticut. The Company is engaged primarily in the energy delivery business through its wholly-owned utility subsidiaries.

NU serves customers in Connecticut, Massachusetts and New Hampshire.



The public utility subsidiaries of NU include:

- Connecticut Light & Power
- Public Service Company of New Hampshire
- Western Massachusetts
- Yankee Gas

On October 18, 2010, NU and NSTAR announced a Merger Agreement to combine the two companies. The post-transaction company will provide electric and natural gas energy delivery service to nearly 3.5 million electric and natural gas customers through six regulated electric and natural gas utilities in Connecticut, Massachusetts and New Hampshire, representing over half of all the customers in New England. The merger is still pending.

Exhibit 8 is a comparison of costs and revenues recovered through surcharges in NU's jurisdictions:

EXHIBIT 8				
DESCRIPTION	CT		NH	MA
	ELEC	GAS	ELEC	ELEC
Competitive Transition Assessment <sup>1</sup>	•		•	•
Decoupling				•
Electricity Consumption Tax			•	
Energy Efficiency Programs				• <sup>2</sup>
Exogenous Costs				•
FERC Congestion Charge	•			
Low Income				•
Pension/PBOP				•
Renewable Energy				•
Storm Recovery Costs				•
System Benefit			•	

<sup>1</sup>Stranded investment, conservation load management, renewable energy  
<sup>2</sup>Two separate charges for energy efficiency & DSM  
Source: 2010 Form 10-K and tariffs

## MIDAMERICAN ENERGY HOLDINGS COMPANY (ELECTRIC AND GAS)

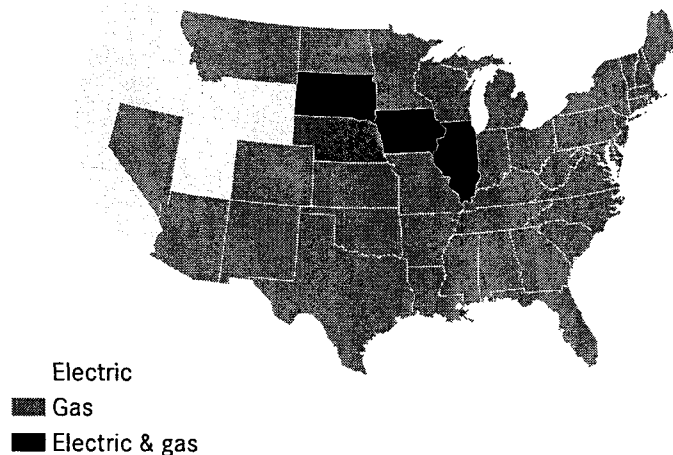
MidAmerican Energy Holdings Company (“MEHC”) is a holding company that owns subsidiaries principally engaged in energy businesses (collectively with its subsidiaries, the “Company”). MEHC is a consolidated subsidiary of Berkshire Hathaway Inc. (“Berkshire Hathaway”).

The Company’s operations are organized and managed as eight distinct platforms: PacifiCorp, MidAmerican Funding, LLC, Northern Natural Gas Company, Kern River Gas Transmission Company, CE ElectricUKFunding Company, CalEnergy Philippines, CalEnergy U.S. and HomeServices of America, Inc. Through these platforms, the Company owns and operates an electric utility company in the Western United States, an electric and natural gas utility company in the Midwestern United States, two interstate natural gas pipeline companies in the United States, two electricity distribution companies in Great Britain, a diversified portfolio of independent power projects and the second largest residential real estate brokerage firm in the United States.

As of December 31, 2010, MEHC’s electric and natural gas utility subsidiaries served 6.2 million electricity customers and end-users and 0.7 million natural gas customers. MEHC’s natural gas pipeline subsidiaries operate interstate natural gas transmission systems that transported approximately 8% of the total natural gas consumed in the United States during 2010.

PacifiCorp, an indirect wholly owned subsidiary of MEHC, is a United States regulated electric utility company headquartered in Oregon that serves 1.7 million retail electric customers. PacifiCorp is principally engaged in the business of generating, transmitting, distributing and selling electricity.

MEHC serves customers in:



The public utility subsidiaries of MEHC include:

- PacifiCorp
- Pacific Power (electric)
- Rocky Mountain Power (electric)
- MidAmerican Energy (electric & gas)
- Northern Natural Gas (gas-regulated by FERC)

Exhibit 9 is a comparison of costs recovered through surcharges in MEHC's jurisdictions:

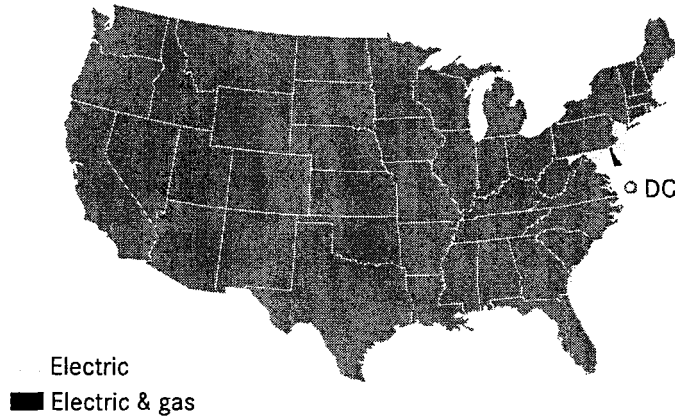
EXHIBIT 9													
	CA	IA		ID	IL		NE	OR	SD		UT	WA	WY
DESCRIPTION	Elec	Elec	Gas	Elec	Elec	Gas	Gas	Elec	Elec	Gas	Elec	Elec	Elec
Alternate Energy Producer Cost Recovery		*											
Btu Adjustment			*				*			*			
Capital Investments		*											
Carbon Reduction Costs			*									*	
CARE Program	*												
Catastrophic Event Memo Account	*												
Commission Fees/ Government Fees	*	*											
Energy Efficiency/DSM <sup>2,3</sup>	*	*	*		*	*		*	*	*	*	*	*
Franchise Fees						*						*	
GridWest Regulatory Asset								*					
Hydro Cost Deferral												*	
Independent Evaluator Cost								*					
Intervenor Funding								*					
Klamath Dam Removal								*					
Klamath Rate Reconciliation Adjustment								*					
Low Income	*					*		*			*	*	
Nuclear Decommissioning					*								
Property Sales								*					
Public Purpose Charge								*					
Rate Mitigation Adjustment			*					*					
Renewable Energy/Solar Energy Programs/Research <sup>1</sup>	*	*			*	*		*			*	*	
Severance-Regulatory Asset								*					
Taxes		*	*		*	*	*	*	*	*		*	
Transition Balancing Account (includes franchise fees & uncollectibles)	*											*	*

<sup>1</sup>Voluntary in IA, IL and UT  
<sup>2</sup>DSM charge in SD does not apply to all customers  
<sup>3</sup>DSM suspended in Wyoming  
Source: 2010 Form 10-K and tariffs



### PEPCO HOLDINGS, INC. (ELECTRIC AND GAS)

Pepco Holdings Inc. ("PHI") is a diversified energy company that through its operating companies is engaged primarily in two businesses: the distribution, transmission and default supply of electricity and the delivery and supply of natural gas (power delivery), conducted through its regulated public utility companies. PHI has approximately 1.9 million customers in the following jurisdictions: Delaware, Maryland, New Jersey, and the District of Columbia.



The public utility subsidiaries of PHI include:

- Potomac Electric Power Company (electric)
- Atlantic City Electric (electric)
- Delmarva Power & Light (electric & gas)

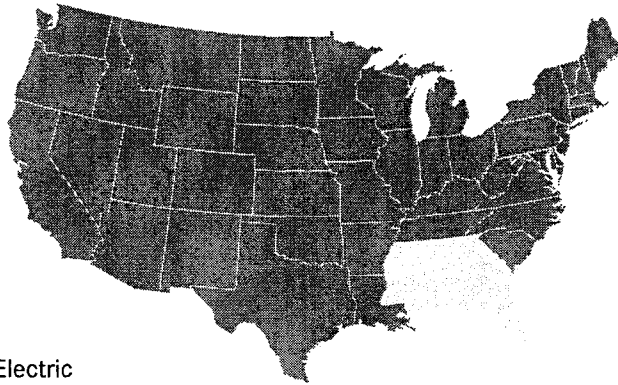
Exhibit 10 is a comparison of revenues and costs recovered via surcharges in PHI's jurisdictions:

EXHIBIT 10					
	DC	DE		MD	NJ
DESCRIPTION	ELEC	ELEC	GAS	ELEC	ELEC
Bill Stabilization	*			*	
Corporate Business Tax					*
Delivery Tax	*				
Demand Side Management				*	
Energy Assistance Fund <sup>3</sup>	*				
Environmental Expenses			*		*
Infrastructure Investment					*
Public Space Occupancy Fees	*				
Regulatory Assets Recovery <sup>1</sup>					*
Sales and Use Tax					*
Securitization of Stranded Costs					*
Societal Benefits <sup>3</sup>	*				*
Sustainable Energy Fund	*				
Transitional Facility Assessment					*
Universal Service Costs	*			*	

<sup>1</sup>Asbestos removal, FAS 106 Costs and other regulatory assets  
<sup>2</sup>A new Reliability Investment Recovery Mechanism (RIM) surcharge is currently being proposed in all of PHI's regulated electric utility operating jurisdictions.  
<sup>3</sup>Customer will pay either Societal Benefits Charge or the Energy Assistance Fund Charge, not both  
Source: 2010 Form 10-K and tariffs

**SOUTHERN COMPANY (ELECTRIC)**

Southern Company was incorporated under the laws of Delaware on November 9, 1945 and is headquartered in Atlanta. Its traditional operating companies (which are also referred to as the Southern Company System) supply electric service to approximately 4.4 million customers, in four southeastern states: <sup>34</sup>



Electric

The public utility subsidiaries of Southern Company include:

- Alabama Power Company
- Georgia Power Company
- Gulf Power (serves utility customers in the Florida panhandle)
- Mississippi Power

Exhibit 11 is a comparison of costs recovered via surcharges in Southern Company’s jurisdictions:

EXHIBIT 11				
DESCRIPTION	AL <sup>1</sup>	FL	GA	MS
Ad Valorem				•
Demand Side Management/ Conservation		•	•	
Environmental Compliance		•	•	•
New Plant Construction Costs	•		•	• <sup>2</sup>
Performance Evaluation Plan				•
Regulatory Taxes				•
System Restoration				•
Taxes (franchise, gross receipts, etc.)	•	•	•	

<sup>1</sup>Alabama Power’s rates are adjusted annually by the Rate Stabilization and Equalization Factor (a formula rate plan) since 1982, as opposed to setting rates based on the traditional rate case process  
<sup>2</sup>Rider CNP to recover Construction Work In Progress costs associated with the Kemper Plant, is pending in Mississippi.  
 Source: 2010 Form 10-K and tariffs

## SOUTHWEST GAS CORPORATION (GAS)

Southwest Gas ("SWG") is engaged in the business of purchasing, distributing and transporting natural gas in portions of Arizona, Nevada, and California. SWG is the largest distributor of natural gas in Arizona and Nevada. As of December 31, 2010, SWG purchased and distributed or transported natural gas to 1,837,000 residential, commercial and industrial customers.<sup>35</sup>

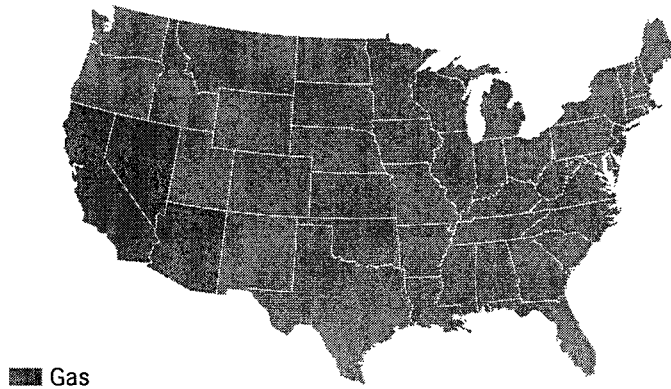


Exhibit 12 a comparison of revenues and costs recovered through surcharges in SWG's jurisdictions:

EXHIBIT 12			
DESCRIPTION	AZ	CA	NV
California Alternate Rates for Energy Balancing Account		•	
Catastrophic Event Memorandum Account		•	
Customer Owned Yard Line (COYL) Cost Recovery Mechanism	•		
CPUC Reimbursement Fee		•	
Decoupling	•	•	•
Demand Side Management (DSM) Surcharge	•		
Energy Efficiency/Renewable Energy Tariff Plan	•		
Facilities Surcharge		•	
Fixed Cost Adjustment		•	
Intrastate Transportation Cost Balancing Account		•	
Low Income	•		
Low Income Energy Efficiency Balancing Account		•	
Public Interest R&D Balancing Account		•	
Research and Development Surcharge	•		
Taxes (not included in rates)			•
Transportation Franchise Fee		•	
TRIMP Surcharge	•		
Uncollectibles			•

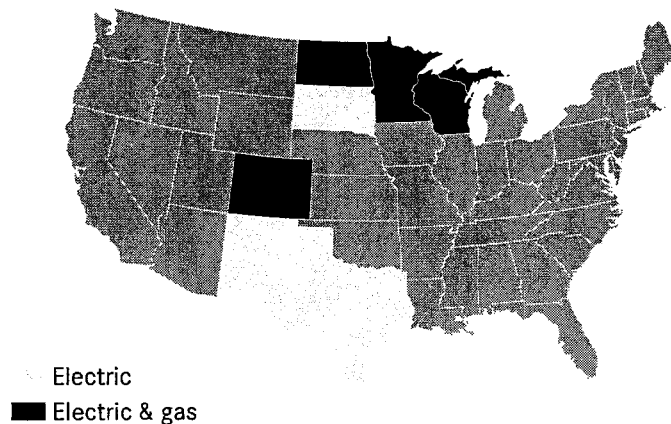
*Source: 2010 Form 10-K and tariffs. In SWG's most recent rate case, Docket No. G-01551A-10-0458 before the Arizona Corporation Commission, a full revenue decoupling mechanism alternative was adopted from a settlement agreement that had been reached by most of the parties to the rate case.*

Some consumer safeguards adopted in Docket No. G-01551A-10-0458 require SWG to:

- Starting April 30, 2012, file quarterly reports regarding the decoupling mechanism's performance.
- Starting April 2013, file annual reports permitting the Commission and all parties the opportunity to review the decoupling mechanism's performance.
- Be subject to an annual earnings test that would prohibit SWG from recovering any decoupling deferral amounts to the extent that the deferral recovery would increase its earnings above the authorized return on common equity.
- Provide \$75,000 for the hiring of an independent consultant to conduct the annual Staff review of SWG's annual filing.
- Cap at 5 percent any surcharge developed through the decoupling mechanism that would result in a non-gas revenue surcharge of greater than 5 percent, and SWG will carry the deferral account balance forward for recovery in the following and subsequent years with no carrying charge; however, there will be no cap on annual surcharge decreases.
- Not to file a general rate application prior to April 30, 2016, with a test year ending no earlier than November 30, 2015.
- Submit a proposed customer outreach/education plan to Staff for review and approval, to outline how SWG intends to explain decoupling to customers.<sup>36</sup>

### XCEL ENERGY (ELECTRIC AND GAS)

Xcel Energy is a holding company, with subsidiaries engaged primarily in the utility business. In 2010, Xcel Energy's continuing operations included the activity of four wholly-owned utility subsidiaries that serve electric and natural gas customers in eight states. Along with WYCO, a joint venture formed with Colorado Interstate Gas Company (CIG) to develop and lease natural gas pipeline, storage, and compression facilities, and WGI, an interstate natural gas pipeline company, these companies comprise the continuing regulated utility operations.<sup>37</sup> Xcel Energy serves 1.36 million electricity customers and 1.3 million natural gas customers.<sup>38</sup> Xcel serves customers in the following states:



The public utility subsidiaries of Xcel include:

- Northern States Power
- Public Service Company of Colorado
- United Water
- SPS

Exhibit 13 is a comparison of costs recovered through surcharges in Xcel's jurisdictions:

EXHIBIT 13													
DESCRIPTION	CO		MI		MN		ND		NM	SD	TX	WI	
	Elec	Gas	Elec	Gas	Elec	Gas	Elec	Gas	Elec	Elec	Elec	Elec	Gas
Conservation/Energy Efficiency Program					•	•			•				
Demand Side Management	•	•											
Energy Optimization			•	•									
Environmental Improvement					•					•			
Facilities Fees					•								
Franchise Fees	•	•			•	•					•		
General Rate Schedule Adjustment	•	•											
Interim Rate					•		•						
Low Income (Pilot)	•	•											
Mercury Emissions Reduction					•								
Other Taxes/Fees	•	•			•	•	•	•		•			
Pipeline System Integrity Adjustment		•											
Renewable Development					•								
Renewable Energy Standard	•				•				•				
State Energy Policy					•	•							
Transmission Capital Costs	•				•					•			

*Source: 2010 Form 10-K and tariffs*

## APPENDIX I – DESCRIPTIONS OF TYPES OF COSTS BEING ASSESSED AS SURCHARGES

The following discussion focuses on proposed surcharges which would appear as an additional charge on ratepayers' bills, above and beyond the basic service charge and charges for fuel and taxes. Below are examples of various surcharges proposed and employed by utilities and a brief description of the costs being recovered through surcharges.

### LOST REVENUES

Lost revenue surcharges are an added charge to ratepayers' bills which serve to compensate the utility for loss of revenue due to various factors. Some lost revenue surcharges include:

#### REVENUE DECOUPLING

Revenue decoupling helps assure that the utility's actual earnings will be at the level of authorized earnings. Under some forms of full decoupling, customers' rates are automatically adjusted to insulate the utility's earnings from fluctuations in sales. The rationale for this is that it removes existing disincentives which make utility management reluctant to aggressively promote energy conservation. Revenue decoupling can take on different approaches, including: decoupling true up plans, lost revenue adjustment mechanisms, and fixed/variable pricing rate design, which shifts costs into the "fixed" portion of the customer's bill and out of the "variable" portion of the bill.

Straight Fixed Variable or (SFV) is a rate design where fixed costs of service would be collected through fixed charges and only variable costs of service would be collected through usage charges. This approach would require very high basic service charges.<sup>39</sup>

Fixed costs are the portion of utility costs that do not change with the level of energy consumption. Within each rate class that does not have a demand charge, each customer is charged the same amount for fixed costs. Variable costs are those costs that differ depending on the amount a customer consumes (e.g., the volumetric charge per kilowatt-hour). Some items that would be considered a variable charge include fuel, some maintenance, and often purchased power. By separating these two charges, a utility's ability to recover its revenue requirement is completely separated from sales volume. By ensuring the recovery of all fixed charges, the revenue level of the company under SFV remains fairly consistent, providing a high level of certainty for investors. Additionally, SFV insulates the utility company from feeling the effects of external forces such as loss of sales due to poor weather or customer investment in energy efficiency would typically have on revenues. Alternatively, the utility company's upside from increased sales is limited.



The use of SFV can reduce savings experienced by customers from energy efficiency investments as presented in the following example<sup>40</sup>:

Reduction of Monthly Customer Usage from 1,000 to 900 Units Energy Efficiency Investment of \$200

	STANDARD TWO-PART TARIFF	SFV
	\$15 Fixed Charge	\$50 Fixed Charge
	\$0.075/kWh	\$0.04/kWh
1,000 Units	Fixed: \$15.00	Fixed: \$50.00
	Variable: \$17.00	Variable: \$40.00
	Total: \$90.00	Total: \$90.00
900 Units	Fixed: \$15.00	Fixed: \$50.00
	Variable: \$67.50	Variable: \$36.00
	Total: \$82.50	Total: \$86.00
Savings	\$7.50/month	\$4/month
	\$90/year	\$48/year

WEATHER NORMALIZATION ADJUSTMENT (PARTIAL FORM OF DECOUPLING)

A weather normalization adjustment (“WNA”) applies a surcharge to ratepayers’ bills so that the bills reflect an amount that would be billed for utility services under normal weather conditions. For example, if gas utility customers use less gas for space heating because winter is warmer than normal, their savings are limited to the avoided gas commodity charges, and the rest of their utility bill effectively reflects the higher usage that is based on “normal” weather. Similarly, if electric customers use less air conditioning during a cooler than normal summer, what would have been their savings is reduced by having to pay the utility as if the normal hot summer weather had occurred. The opposite is also true; higher utility bills from extreme weather can be somewhat mitigated by a WNA surcredit. Weather normalization is a regulatory procedure that removes weather-related volatility from customer bills; that is, adjusts the non-gas (or distribution) charges on customers’ bills to reflect normal weather instead of actual weather which may be colder or warmer than normal.<sup>41</sup>

EARNINGS SHARING MECHANISM/RATE OF RETURN TRACKER

An earnings sharing mechanism is a single adjustment based on the utility’s rate of return. Adjustments are made outside of rate cases when actual costs deviate from test year costs and/or actual revenues deviate from test year revenues, in a manner that affects utility earnings.<sup>42</sup> Some earnings sharing mechanisms are based upon whether the utility earns within a band

around its authorized rate of return. As an illustrative example, if a utility's authorized return on equity was 10%, an earnings sharing mechanism could have a "band" of 50 basis points (plus or minus) around that authorized ROE, earnings above a 10.5% ROE are "shared" with ratepayers via the earnings sharing mechanism as a credit, while earnings below 9.5% would result in a surcharge.

#### TRANSITION ADJUSTMENT

A transition or stranded cost surcharge recovers revenues lost to utilities when customers purchase their energy supply through independent marketers. The rationale for this type of surcharge is that the migration to another supplier creates "stranded costs" for the utility.

#### CAPITAL EXPENDITURES

##### GAS PIPELINE/AGING INFRASTRUCTURE REPLACEMENT

Infrastructure surcharges provide for utility recovery of capital investments made to upgrade a utility's aging electric distribution infrastructure or gas distribution pipeline system.

##### *ATLANTA GAS LIGHT*

In 1998, AGL was permitted to implement a surcharge to recover prudently incurred costs associated with a ten-year pipe replacement program ("PRP") to address specific pipeline safety violations. The PRP was scheduled to be completed but was extended to 2013 as part of a settlement in Docket No. 85616-U. The residential surcharge was \$1.29 per month in years 7-9 of the PRP and increased to \$1.95 in years 10-13. In 2009, the Company filed a request to rename the existing surcharge to the Strategic Infrastructure Development and Enhancement ("STRIDE") Program surcharge so that it would include the PRP costs as well as the Integrated System reinforcement Program ("i-SRP") costs and costs for expanding the distribution system. The Commission approved the Company's request for the STRIDE surcharge in its final decision dated in Docket No. 29950, dated January 20, 2010.

In contrast, Washington Gas Light ("WGL") recently sought, as part of its rate base increase, approval of an Accelerated Pipe Replacement Plan ("APRP") and a related cost recovery mechanism ("Rider") to accelerate the replacement of aging pipes, increase safety and reliability and provide environmental benefits through the reduction of greenhouse gas emissions. The APRP was approved by the regulators but the surcharge was denied by regulators because it departed from traditional ratemaking. In its order, the Maryland PSC stated it would rather review these costs in the context of a rate case, even if the filing of rate cases would be more frequent.

##### NEW GENERATION PLANT INVESTMENT (COAL FIRED, SOLAR, RENEWABLE, NUCLEAR GENERATION)

Some utilities have been authorized surcharges to recover investments made for the purposes of adding generation or capacity to serve more customers or meet increased demand, or for the investments in specific types of generation such as renewables or solar. For example, Progress Energy Florida ("PEF") obtained regulators' approval this year to recover \$86 million from ratepayers for the costs of constructing nuclear Units Levy 1 and 2. The estimated 2012 monthly cost to ratepayers is about \$2.93 for the first 1,000 kilowatt hours (kwh) for PEF customers.

Florida Power & Light Company ("FP&L") also received regulators' approval to recover \$196 million for costs associated with construction of two new units at its Turkey Point Plant and adding capacity to existing units at Turkey Point and St. Lucie Plants.<sup>43</sup>

#### SMART METERS/SMART GRID

"Smart Meters"<sup>44</sup> and "Smart Grid" generally refer to technology to convert and automate utility electricity delivery systems, and enable new functions, such as grid monitoring and time-of-use metering. Many utilities are proposing to rapidly implement these technologies, but some utilities and regulators have found that the costs are much higher than anticipated and/or ratepayer benefits were not commensurate. There have been requests by electric utilities for surcharge recovery of costs for Advanced metering Infrastructure ("AMI"). In 2010, regulators in Texas allowed Oncor Utilities to implement a monthly surcharge of \$2.19 per customer for 11 years to pay for the costs associated with installing smart meter as well as a public education campaign.<sup>45</sup>

The New York PSC authorized Con Edison to recover Smart Grid costs through a surcharge. While the monthly surcharge averages about 28¢/customer, or less than 0.3% of the average monthly bill, the surcharge will collect over \$145 million for the company. The surcharge continues at least until Con Edison's next rate case, in April 2013, when it may be reset.<sup>46</sup>

However, other states have disallowed surcharges to recover these substantial and speculative costs:

#### MARYLAND

Baltimore Gas & Electric Proposed a SmartGrid Plan in Case No. 9208, Order 83410, and requested that the \$835 million cost to implement be recovered from customers via a surcharge. The Commission denied the company's Smart Grid Plan and surcharge recovery. The Commission's decision stated:

The Proposal asks BGE's ratepayers to take significant financial and technological risks and adapt to categorical changes in rate design, all in exchange for savings that are largely indirect, highly contingent and a long way off. We are not persuaded that this bargain is cost-effective or serves the public interest, at least in its current form.

...

The Proposal is a 'no-lose proposition' for the Company and its investors.<sup>47</sup>

BGE submitted a modified SmartGrid plan in Case No. 9208. The Commission approved BGE's modified SmartGrid plan, but again did not permit recovery of the project through a surcharge. The Commission supported intervenor, the Maryland Energy Administration's (MEA), position that AMI deployment is analogous to an investment in a power plant, an investment of similar (or greater) magnitude that historically would be recovered through traditional ratemaking.<sup>48</sup>

#### RENEWABLE ENERGY

Renewable energy surcharges recover costs related to capital expenditures or purchased power contracts associated with a utility's renewable energy program. Renewable energy is defined as

energy that can be replenished, such as wind, solar, geothermal, hydro, photovoltaic, wood and waste. Renewable energy typically also has environmental benefits. To encourage the development of renewable energy, many jurisdictions provide for utility cost recovery via surcharges. Non-renewable energy sources are finite, such as coal, oil, and gas.<sup>49</sup>

#### TRANSMISSION INFRASTRUCTURE

Transmission surcharges can include provisions for utility recovery of capital expenditures to upgrade a utility's aging transmission infrastructure and/or transmission cost increases which the utility incurs based on transmission costs approved by the FERC. Some state regulatory commission prefer to isolate the impacts on utility customer bills resulting from federal mandates, including FERC decisions, so those impacts are transparent to customers and are distinguished from state regulatory decision impacts.

### OPERATION AND MAINTENANCE EXPENSES

#### PIPELINE SAFETY PROGRAM FEES

Utilities have proposed surcharges to recover costs associated with inspecting gas distribution pipelines and safety related issues.

#### VEGETATION MANAGEMENT

Vegetation management activities can include: tree pruning (trimming), right-of-way mowing and clearing, and herbicide application.<sup>50</sup> A major cause of power outages can be due to improperly maintained vegetation or trees that can come in contact with power lines during severe storms.

#### ENVIRONMENTAL COMPLIANCE

Environmental compliance costs can include remediation costs associated with site investigation and removal of pollution or contaminants from soil or groundwater<sup>51</sup> or costs to implement environmental controls mandated by state and federal regulations.<sup>52</sup> A common example of environmental compliance costs is the emission control equipment that electric generation utilities are required to install on coal-fired plants to meet air quality standards.

#### UNCOLLECTIBLE CHARGES

Some utilities have requested surcharges to collect customers' bad debts. Some surcharges allow a utility to collect from (or refund) the difference between the uncollectible (or bad debt) expense allowed in base rates and the utility's actual prior calendar year uncollectible expense. Some utility uncollectible surcharges recover only the fuel or gas cost portion of uncollectible accounts.<sup>53</sup> In some cases, the uncollectible expense may be collected through the utility's fuel or gas clause.

#### PENSION/OTHER POST RETIREMENT BENEFITS ("OPEB")

Prior to 2008, many utilities' defined benefit pension plans were well funded. However, due to the sharp decline of the stock market in late 2008 with the onset of the world-wide financial crisis, many utilities' pension plans suffered substantial losses. In the following

years, some utilities requested substantial increases to their pension expense to replenish the funding of their pension plans, some via a surcharge. The stock market has since stabilized.

#### STORM DAMAGE

A catastrophic storm may cause significant damage to a utility's infrastructure (wires, poles, substations, etc.). Some utilities have petitioned regulators to recover the costs associated with repairing its infrastructure via a surcharge mechanism. Traditionally, utility storm damage repair costs have been addressed in base rates.

#### ENERGY EFFICIENCY/CONSERVATION/DEMAND SIDE MANAGEMENT (DSM) PROGRAMS

Costs associated with implementing energy efficiency, conservation and demand side management programs are increasingly being addressed for ratemaking purposes in utility surcharge mechanisms.

#### UNIVERSAL SERVICE COSTS (LOW INCOME PROGRAM COSTS)

A universal service cost is a fee paid by users of a utility service in some states to support the provision of providing utility service for low-income users. The fees help eligible customers pay their electricity bills and may also provide for energy conservation measures and weatherization.<sup>54</sup>

#### MUNICIPAL FEES/FRANCHISE FEES

Some utilities pass through fees imposed on the utility by the municipality for franchise, occupation taxes/fees, or any other tax/fee imposed on the company by the municipality to conduct business within the city limits and on the cities' rights-of-way to its customers.<sup>55</sup> Typically, special surcharges for municipal fees or taxes would be applicable to utility customers residing within the municipality that is imposing such surcharges on the utility.

#### AD VALOREM TAXES

Ad Valorem taxes are taxes based on assessed value of property (i.e., property taxes).

#### OTHER TAXES

Some utilities impose a surcharge to collect other taxes such as sales and use tax, gross receipts tax, etc.

#### STRANDED COSTS

Costs incurred by utilities to serve their customers that potentially may be unrecoverable in a newly-created market.<sup>56</sup> Stranded costs can be defined as the estimated decline in the value of electricity-generating assets due to restructuring of the industry.<sup>57</sup>

#### SOCIETAL BENEFITS CHARGE OR SYSTEM BENEFITS CHARGE

In some jurisdictions, such as New Jersey and Arizona, utilities collect from customers a "societal benefits charge" which allows the utility to recover a combination of costs: e.g., clean energy program costs, manufactured gas plant remediation expenses, universal service fund and other allowed costs.<sup>58</sup>

## REGULATORY FEES

These fees can include rate case costs, regulator fees, etc.

## LITIGATION COSTS

Legal fees and costs associated with a trial, if significant or unusual, would be the subject of a special surcharge request by a utility. Traditionally, utility legal costs are addressed in the determination of the utilities' base rates.

## CAPITAL/O&M COMBINED

### ECONOMIC STIMULUS PROGRAM ("ESP")

In some jurisdictions, such as New Jersey, costs and associated carrying costs incurred on behalf of the utility for reliability focused and energy efficiency focused infrastructure projects are within the Economic Stimulus Program ("ESP"), which is a specific utility cost recovery mechanism. ESP Costs include: (1) the carrying costs (depreciation and return on net investment, including tax effects) on capital investments and (2) the incremental operation and maintenance expenses associated with the infrastructure programs.

### ENVIRONMENTAL COMPLIANCE

Capital expenditures and O&M associated with installing environmentally compliant plant equipment that reduces or removes the level of harmful substances being emitted into the atmosphere. This can include costs for environmental remediation (i.e., clean-up).

### SYSTEM HARDENING/RELIABILITY COSTS

Proactive measures to increase a utility's transmission and distribution system to withstand the effects of high winds and storms. This can also include investments to upgrade or underground the infrastructure.

### SECURITY COSTS

Security costs include proactive measures to protect a utility's infrastructure from security threats. After the September 11, 2001 terrorist attacks on the World Trade Center, some utilities began requesting special cost recovery for the increased costs for security threats to water supply and treatment facilities and to other potential terrorist targets such as nuclear generating plants.

## ABOUT THE AUTHORS

Ralph Smith is a senior regulatory consultant with Larkin & Associates, PLLC. His professional credentials include being a Certified Financial Planner™ Professional, a licensed certified public accountant and attorney. He functions as project manager on consulting projects involving utility regulation, regulatory policy and ratemaking and utility management. He received a Bachelor of Science in Administration in Accounting, with distinction, University of Michigan, Dearborn, 1979; a Master of Science in Taxation, Walsh College, Michigan, 1981. His Master's thesis dealt with investment tax credit and property tax on various assets. He also graduated,

cum laude, with a Juris Doctor from Wayne State University Law School, Detroit, Michigan, 1986, and received an American Jurisprudence Award for academic excellence. His involvement in public utility regulation has included project management and in-depth analyses of numerous issues involving water and sewer, telephone, electric, and gas utilities.

Over the past 31 years, Mr. Smith has performed work in the field of utility regulation on behalf of industry, public service commission staffs, state attorney generals, municipalities, and consumer groups concerning regulatory matters before regulatory agencies in Alabama, Alaska, Arizona, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maine, Michigan, Minnesota, Mississippi, Missouri, New Jersey, New Mexico, New York, Nevada, North Dakota, Ohio, Pennsylvania, South Carolina, South Dakota, Texas, Utah, Vermont, Virginia, Washington, Washington DC, West Virginia, Canada, Federal Energy Regulatory Commission and various state and federal courts of law. He has presented expert testimony in regulatory hearings on behalf of utility commission staffs and intervenors, including AARP, on several occasions.

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Input for this report was also provided by Hugh Larkin, Jr., senior partner of Larkin & Associates; Helmuth W. Schultz, III, and Donna Ramas, senior regulatory analysts; Mark Dady and John Defever, regulatory analysts, and Kerry Niemiec, administrator.

## END NOTES

- <sup>1</sup> Public Utilities Commission of Minnesota, Utility Rates Study, 2010, Talking Points on Cost Trackers, The National Regulatory Research Institute Presentation, November 2009.
- <sup>2</sup> The Two Sides of Cost Trackers: Why Regulators Must Consider Both, October 27, 2009.
- <sup>3</sup> The International Accounting Standards Board (IASB) Framework lists prudence as a sub-quality of reliability, calling prudence “the inclusion of a degree of caution in the exercise of the judgments needed in making the estimates required under conditions of uncertainty, such that assets or income are not overstated and liabilities or expenses are not understated” (paragraph 37). Also, Financial Accounting Standards Board (“FASB”) Concepts Statement 2 discusses conservatism—meaning prudence—at length in paragraphs 91–97.
- <sup>4</sup> Used and useful is defined by the Edison Electric Institute’s 2005 Glossary of Electric Terms as “A regulatory specification typically used to determine whether an item of “Plant” may be included in a utility’s rate base.
- <sup>5</sup> [http://nrriz.org/index.php?option=com\\_content&task=view&id=97&Itemid=48](http://nrriz.org/index.php?option=com_content&task=view&id=97&Itemid=48). Public Utilities Commission of Minnesota, Utility Rates Study, 2010.
- <sup>6</sup> Cost Recovery Mechanisms for Smart Grid Investment, Carl Peterson, Center for Business and Regulation, University of Illinois Springfield.
- <sup>7</sup> Public Utilities Commission of Minnesota, Utility Rates Study, 2010.
- <sup>8</sup> <http://www.nj.gov/bpu/residential/glossary/> In states which have restructured their retail electric markets, the transmission and distribution rates remain regulated.
- <sup>9</sup> Public Utilities Commission of Minnesota, Utility Rates Study, 2010.
- <sup>10</sup> The Two Sides of Cost Trackers: Why Regulators Must Consider Both, October 27, 2009.
- <sup>11</sup> The terms used may vary slightly between different jurisdictions and are not used uniformly by utility regulators.
- <sup>12</sup> <http://www.georgiapower.com/pricing/glossary.asp#rider>
- <sup>13</sup> Aquila, Order in Application No. NG-0041
- <sup>14</sup> Balancing accounts are usually classified as “one way” (or “asymmetrical”) where underspending is returned to ratepayers, but overspending is absorbed by company. Under a two-way (“or symmetrical”) balancing account, the impact of underspending and overspending, if deemed to be prudent, is ultimately passed on to the ratepayer.
- <sup>15</sup> A balancing account may be recorded as a regulatory asset or a deferred asset on the utility’s books. Qualifying costs are charged to the balancing account and the surcharge revenues collected are credited to the account. Balances in some balancing accounts earn the 90-day commercial payment rate.
- <sup>16</sup> Memorandum (“memo”) accounts are used extensively by California utilities, with more limited or no use in other jurisdictions. The costs being tracked may later be converted to a balancing account upon approval by the regulator. In California, information regarding memorandum accounts are reported by filing “Advice Letters”.



<sup>17</sup> A.10-07-007

<sup>18</sup> This information was obtained from the tariffs on the utilities' websites during the time-frame of this report.

<sup>19</sup> Utah Code Annotated Section 54-7-13(4)

<sup>20</sup> Direct Testimony of Greg Shimansky, GDS-1, A. 10-12-005

<sup>21</sup> Direct Testimony of Jodi Jerich, on behalf of RUCO, Docket No. G-04204A-11-0158

<sup>22</sup> Testimony of David Dismukes, Docket No. 09-00183, Testimony of Jodi Jerich, G-04204A-11-0158

<sup>23</sup> [http://coa.courts.mi.gov/documents/OPINIONS/FINAL/COA/20120410\\_C296374\\_47\\_296374.OPN.PDF](http://coa.courts.mi.gov/documents/OPINIONS/FINAL/COA/20120410_C296374_47_296374.OPN.PDF)

<sup>24</sup> *Id.*, at 8

<sup>25</sup> *Id.*, at 8

<sup>26</sup> The array of surcharges being proposed and implemented by utilities is continuously evolving. Information for the utilities listed is believed to be accurate at the time the research was conducted, but is subject to change as new regulatory developments occur.

<sup>27</sup> It should be noted that the utility may only serve customers in a portion of the states shown.

<sup>28</sup> [http://www.aglresources.com/about/about\\_us.aspx](http://www.aglresources.com/about/about_us.aspx)

<sup>29</sup> AGL Resources 2010 Form 10-K p. 4

<sup>30</sup> 2010 Form 10-K

<sup>31</sup> <http://www.ameren.com/aboutameren/pages/aboutus.aspx>

<sup>32</sup> 2010 Form 10-K

<sup>33</sup> <https://www.progress-energy.com/company/about-us/index.page?>

<sup>34</sup> <http://www.southerncompany.com/aboutus/home.aspx>

<sup>35</sup> Southwest Gas Corporation, Form 10-K, 2010

<sup>36</sup> Proposed Decision dated November 28, 2011

<sup>37</sup> 2010 Form 10-K

<sup>38</sup> <http://www.metrodenver.org/investor-center/2011/xcel-energy.html>

<sup>39</sup> Direct Testimony of Leland Snook on behalf of APS, Docket No. E-01345A-11-0224

<sup>40</sup> Source: <https://aep.com/about/IssuesAndPositions/Financial/Regulatory/AlternativeRegulation/StraightFixedVariable.aspx>

<sup>41</sup> Ralph Miller Direct Testimony, Brooks Congdon, on behalf of Southwest Gas Corp., Docket No. G-01551A-07-0504

<sup>42</sup> Utility Rates Study, July 22, 2010 by the Minnesota Public Utilities Commission to the Senate Energy, Utilities, Technology & Communications Committee.

<sup>43</sup> <http://citrusdaily.com/psc-approves-nuclear-cost-recovery-progress-energy-fpl/2011/10/25/87681.html>

<sup>44</sup> Also referred to as “Advanced Meters”.

<sup>45</sup> <http://www.greentechmedia.com/articles/read/smart-grid-cost-recovery-make-the-consumer-care/>

<sup>46</sup> [www.smartgridtoday.com/public/2174print.cfm](http://www.smartgridtoday.com/public/2174print.cfm), Order in Case 09-E-0310, <http://www.coned.com/documents/elec/159-164a.pdf>

<sup>47</sup> MD PSC Order No. 83410, pp. 1,3, dated June 21, 2010.

<sup>48</sup> MD PSC Order No. 83531, pp. 32-41.

<sup>49</sup> 2005 EEI Glossary.

<sup>50</sup> <http://www.oncor.com/community/vegetation/default.aspx>

<sup>51</sup> [http://en.wikipedia.org/wiki/Environmental\\_remediation](http://en.wikipedia.org/wiki/Environmental_remediation)

<sup>52</sup> <http://www.georgiapower.com/pricing/glossary.asp#r1>

<sup>53</sup> Atmos Energy

<sup>54</sup> <http://www.nj.gov/bpu/residential/glossary/>

<sup>55</sup> <http://www.georgiapower.com/pricing/glossary.asp#r2>

<sup>56</sup> 2005 EEI Glossary

<sup>57</sup> <http://www.cbo.gov/doc.cfm?index=976&type=o>

<sup>58</sup> South Jersey Gas

The AARP logo is rendered in a bold, white, sans-serif font. The letter 'A' is stylized with a horizontal line extending from its left side. A registered trademark symbol (®) is positioned at the top right of the 'P'.

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BEFORE THE ARIZONA CORPORATION COMMISSION

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**COMMISSIONERS**

BOB STUMP, Chairman  
GARY PIERCE  
BRENDA BURNS  
BOB BURNS  
SUSAN BITTER SMITH

IN THE MATTER OF THE APPLICATION OF  
VALENCIA WATER COMPANY – TOWN DIVISION  
FOR THE ESTABLISHMENT OF JUST AND  
REASONABLE RATES AND CHARGES FOR UTILITY  
SERVICE DESIGNED TO REALIZE A REASONABLE  
RATE OF RETURN ON THE FAIR VALUE OF ITS  
PROPERTY THROUGHOUT THE STATE OF ARIZONA

DOCKET NO. W-01212A-12-0309

IN THE MATTER OF THE APPLICATION OF  
GLOBAL WATER – PALO VERDE UTILITIES  
COMPANY FOR THE ESTABLISHMENT OF JUST AND  
REASONABLE RATES AND CHARGES FOR UTILITY  
SERVICE DESIGNED TO REALIZE A REASONABLE  
RATE OF RETURN ON THE FAIR VALUE OF ITS  
PROPERTY THROUGHOUT THE STATE OF ARIZONA

DOCKET NO. SW-20445A-12-0310

IN THE MATTER OF THE APPLICATION OF WATER  
UTILITY OF NORTHERN SCOTTSDALE, INC. FOR A  
RATE INCREASE

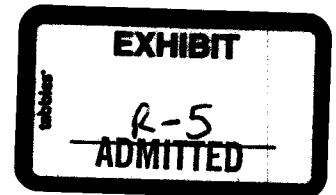
DOCKET NOS. W-03720A-12-0311

IN THE MATTER OF THE APPLICATION OF  
WATER UTILITY OF GREATER TONOPAH FOR  
THE ESTABLISHMENT OF JUST AND REASONABLE  
RATES AND CHARGES FOR UTILITY SERVICE  
DESIGNED TO REALIZE A REASONABLE RATE OF  
RETURN ON THE FAIR VALUE OF ITS PROPERTY  
THROUGHOUT THE STATE OF ARIZONA

DOCKET NO. W-02450A-12-0312

IN THE MATTER OF THE APPLICATION OF  
VALENCIA WATER COMPANY – GREATER  
BUCKEYE DIVISION FOR THE ESTABLISHMENT OF  
JUST AND REASONABLE RATES AND CHARGES FOR  
UTILITY SERVICE DESIGNED TO REALIZE A  
REASONABLE RATE OF RETURN ON THE FAIR  
VALUE OF ITS PROPERTY THROUGHOUT THE  
STATE OF ARIZONA

DOCKET NO. W-02451A-12-0313



1 IN THE MATTER OF THE APPLICATION OF  
2 GLOBAL WATER – SANTA CRUZ WATER COMPANY  
3 FOR THE ESTABLISHMENT OF JUST AND  
4 REASONABLE RATES AND CHARGES FOR UTILITY  
5 SERVICE DESIGNED TO REALIZE A REASONABLE  
6 RATE OF RETURN ON THE FAIR VALUE OF ITS  
7 PROPERTY THROUGHOUT THE STATE OF ARIZONA

DOCKET NO. W-20446A-12-0314

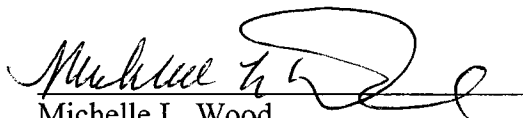
5 IN THE MATTER OF THE APPLICATION OF  
6 WILLOW VALLEY WATER COMPANY FOR THE  
7 ESTABLISHMENT OF JUST AND REASONABLE  
8 RATES AND CHARGES FOR UTILITY SERVICE  
9 DESIGNED TO REALIZE A REASONABLE RATE OF  
10 RETURN ON THE FAIR VALUE OF ITS PROPERTY  
11 THROUGHOUT THE STATE OF ARIZONA

DOCKET NO. W-1732A-12-0315

**NOTICE OF FILING**

9  
10 The Residential Utility Consumer Office (“RUCO”) hereby provides notice of filing the  
11 Direct Testimony of Patrick J. Quinn in support of the Settlement Agreement, in the above-  
12 referenced matter.

13 RESPECTFULLY SUBMITTED this 21st day of August, 2013.

14  
15   
16 Michelle L. Wood  
17 Counsel

18 AN ORIGINAL AND THIRTEEN  
19 COPIES of the foregoing filed this  
20 21<sup>st</sup> day of August, 2013 with:

21 Docket Control  
22 Arizona Corporation Commission  
23 1200 W. Washington  
24 Phoenix, AZ 85007

25 COPIES of the foregoing hand delivered/  
26 mailed this 21st day of August, 2013 to:

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12 Water Utility of Greater Tonopah, Inc.;  
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By Cheryl Traulob  
Cheryl Traulob

GLOBAL WATER UTILITIES  
DOCKET NO. W-01212A-12-0309 et al.

DIRECT TESTIMONY  
OF  
PATRICK J. QUINN  
IN  
SUPPORT OF THE SETTLEMENT AGREEMENT

AUGUST 21, 2013



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**EXECUTIVE SUMMARY**

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The Arizona Residential Utility Consumer Office (“RUCO”) presents the direct testimony of RUCO Director Patrick J. Quinn in support of the Proposed Settlement Agreement of the Global Water Utilities Rate Cases that resolves all issues in the various related dockets with the exception of a SIB for Willow. Mr. Quinn recommends that the Arizona Corporation Commission adopt the Proposed Settlement Agreement for the following reasons:

The Proposed Settlement Agreement reflects an outcome that is fair to both the consumer and Global Water Utilities and is in the public interest.

The Proposed Settlement Agreement is a comprehensive settlement agreement. Its terms settle a wide range of issues that were of significant interest to several of the interveners with the exception of the one issue: the DSIC for Willow Valley. The parties will be filing testimony on the issue, separately.

RUCO supports the Proposed Settlement Agreement in its entirety because it contains numerous benefits to the consumer which will be discussed in Mr. Quinn’s testimony.

The Proposed Settlement Agreement resolved several areas of importance to RUCO in the underlying rate cases. This resolution of all issues included Infrastructure Coordination and Financing Agreements, the amount of revenue increase authorized for Global, the affect of the increase on consumers’ rates and requiring the Company to not file another rate case until at least May 31, 2016. All of these issues were addressed satisfactorily in the Proposed Settlement Agreement and will be explained more fully in Mr. Quinn’s testimony.

1 **INTRODUCTION**

2 **Q. Please state your name, occupation and business address for the**  
3 **record.**

4 A. My name is Patrick J. Quinn. I am the Director of the Arizona Residential  
5 Utility Consumer Office ("RUCO"). My business address is 1110 W.  
6 Washington Street, Suite 220, Phoenix, Arizona 85007.

7  
8 **Q. Please state your educational background and qualifications in the**  
9 **utility regulation field.**

10 A. I have a BS in Mathematics and a MBA from the University of South  
11 Dakota. Additionally, I have 35 plus years of experience in the  
12 Telecommunications Industry and the Consulting business dealing with  
13 utility regulation. I have testified over 50 times before state and federal  
14 regulatory commissions on issues including finance, economics, pricing,  
15 policy and other related areas.

16  
17 **Q. What is the purpose of your testimony?**

18 A. The purpose of my testimony is to explain RUCO's support of Global  
19 Water Utilities ("Global") Proposed Settlement Agreement ("Agreement").

20  
21 ...

22 ...

23 ...

1 **Q. Have you participated in other settlement negotiations?**

2 A. Yes. I have participated in settlement negotiations in other matters that  
3 have come before the Arizona Corporation Commission ("ACC" or  
4 "Commission") both from the utility and consumer side. The majority of  
5 these negotiations have resulted in reaching an accord with the utility and  
6 the other settling parties, leading to the signing and supporting of a  
7 settlement agreement. On the other hand, I have walked away from  
8 settlement talks when negotiations produced a result I could not support. I  
9 have been involved in several recent negotiations where I represented  
10 RUCO. Some have resulted in settlements and others did not settle  
11 because RUCO found that they were not in the best interest of residential  
12 ratepayers. RUCO does not enter into settlements lightly. RUCO will not  
13 agree to settle simply as a means of avoiding litigation. However, in this  
14 matter, negotiations did produce reasonable and fair terms that RUCO can  
15 and does support.

16

17 **THE SETTLEMENT PROCESS**

18 **Q. Was the negotiation process that resulted in the Settlement**  
19 **Agreement a proper and fair process?**

20 A. Yes. The Agreement is the result of numerous hours of negotiation and a  
21 willingness among the parties to compromise. The negotiations were  
22 conducted in a fair and reasonable way that allowed each party the  
23 opportunity to participate. All intervenors had an opportunity to participate

1 in every step of the negotiation. Notice for each scheduled meeting was  
2 sent to all parties electronically. Persons were able to participate via  
3 teleconference, if necessary.

4  
5 By RUCO's count, at least 10 parties participated in the Agreement.  
6 These participants represent a wide range of interests including Home  
7 Owners Associations, the city of Maricopa, developers, Commission Staff  
8 ("Staff") and RUCO.

9  
10 **Q. Did all the parties sign the Agreement?**

11 A. No. At the very end, six parties chose to sign the Agreement. The parties  
12 that did not sign have the opportunity to file testimony to explain their  
13 reasons for not signing the Agreement.

14  
15 **Q. Why is a negotiated settlement process an appropriate way to  
16 resolve this matter?**

17 A. By its very nature, a settlement finds middle ground that the parties can  
18 support. All the parties that participated in the settlement talks were  
19 sophisticated parties who were well seasoned in the ACC's regulatory  
20 processes and veterans of the negotiating table. The fact that six parties  
21 representing such varied interests were able to come together to reach  
22 consensus illustrates the balance, moderation and compromise of the  
23 document.

1 Settlement negotiations began only after each party had the opportunity to  
2 analyze Global's Application, file its direct testimony and read the direct  
3 testimony of other Intervenors. Of course, the Agreement in no way  
4 eliminates the ACC's constitutional right and duty to review this matter and  
5 to make its own determination whether the Agreement is truly balanced  
6 and the rates are just and reasonable.

7

8 **SUMMARY OF TESTIMONY**

9 **Q. Please summarize your testimony.**

10 A. The Agreement reflects an outcome that is fair to both the consumer and  
11 Global and is in the public interest. Furthermore, this is a comprehensive  
12 agreement. Its terms settle a wide range of issues that were of significant  
13 interest to several of the intervenors.

14

15 RUCO supports the Agreement in its entirety because it contains  
16 numerous benefits to the consumer. I will list those benefits later. There  
17 were four areas of importance that needed to be resolved in the  
18 Agreement before RUCO could become a signatory. They were the  
19 resolution of all issues relating to Infrastructure Coordination and  
20 Financing Agreements ("ICFAs"), the amount of revenue increase that  
21 Global was granted, the impact on residential rates and the rate design  
22 which includes both a phase in and a stay out provision. Some of these  
23 issues are very complex and contain many moving parts. All of these

1           were addressed satisfactorily in the Agreement and will be explained later  
2           in my testimony. During the resolution of those issues, Global also agreed  
3           to not file another rate case before May 31, 2016. That date could change  
4           to 2017 if the city of Maricopa signs the agreement.

5

6           **SETTLEMENT PROVISIONS**

7           **Q.     In summary, what are the benefits to the residential consumer?**

8           A.     The benefits to the residential consumer are as follows:

- 9           •     No increase in residential rates for the first year
- 10          •     Rate increases for authorized expenses phased in over three years  
11           with no increase in the first year
- 12          •     Rate increases for resolution of ICFAs phased in over eight years with  
13           no increase in the first year
- 14          •     Revenue requirement that was less than 50 percent of what the  
15           Company requested
- 16          •     Resolution to all issues concerning ICFAs
- 17          •     Stay out provision until at least May 31, 2016 for filing a rate case
- 18          •     Future investment must be funded with debt, equity, hookup fees and  
19           main extension agreements
- 20          •     Code of Conduct to be developed to define how certain transactions  
21           between Global and other entities would operate in the future

22

1 **PUBLIC INTEREST**

2 **Q. How is the public interest satisfied by the Agreement?**

3 A. At the most fundamental level, the Agreement satisfies the public interest  
4 from RUCO's perspective in that it provides favorable terms and  
5 protections for residential consumers as defined above. The Agreement  
6 also satisfies the public interest by providing a fair and balanced approach  
7 to addressing the Company's concerns on financial and operating issues.

8

9 **FOUR AREAS OF IMPORTANCE**

10 **Q. You mentioned four areas of importance that are critical for RUCO to**  
11 **sign on to the Agreement. Would you like to address them?**

12 A. Yes. One major area of concern was resolution of all issues concerning  
13 ICFA's. ICFA's are a very complex way for the Company to finance capital  
14 expenditures. Basically developers sign a contract with the Company's  
15 parent to give them cash up front to insure that when they start building  
16 their homes the necessary facilities will be in place. It was essential to  
17 RUCO in resolving this case to settle all issues concerning ICFA's Section  
18 VI of the Settlement explains in detail the various resolutions to the many  
19 ICFA issues. In the end RUCO was very satisfied with the results of the  
20 Settlement on this issue.

21

22



1     **Q.    Another concern is the issue on the amount of revenue increase**  
2     **authorized for the Company. Please explain this issue.**

3     A.    One of the major issues in a rate case is how much is the Company going  
4     to be allowed to increase their revenues. The rate increases to  
5     consumers is affected directly by the increase in revenues. During the  
6     negotiation process the Company and intervenors made adjustments to  
7     the authorized rate of return, revenues, operating expenses and rate base.  
8     In this case the results of these negotiated adjustments ended up reducing  
9     the original request of the Company by almost 50 percent. This translated  
10    into significantly smaller rate increases.

11

12    **Q.    Another concern is the issue on the amount of increase to residential**  
13    **rates. Please explain this issue.**

14    A.    Yes. One of RUCO's main priorities is to analyze monthly rate increases  
15    to determine if the increases are in the best interest of the residential  
16    ratepayer. Through the negotiation process in this settlement there will be  
17    no first year increases on residential consumers' rates. Any rate increase  
18    for authorized expenses will be phased in over three years with no  
19    increase in the first year. Additionally, any rate increase associated with  
20    the resolution of the ICFAs will be phased in over eight years with no  
21    increase in the first year. The phase in of both of these increases for  
22    residential consumers will allow for gradual increases and time to plan for  
23    the future increases.

1 **Q. Additionally there is always a concern on how soon a company can**  
2 **come back in and file a new rate case. Please explain this issue.**

3 A. This is usually referred to as a stay out provision that prevents a company  
4 from filing a rate case before a certain date. So as part of these rate  
5 cases, a stay out until May 31, 2016 was negotiated and agreed to by the  
6 Company. The year may change to 2017 for Santa Cruz and Palo Verde  
7 systems, if the City of Maricopa votes to sign on to the Settlement.

8  
9 **Q. Regarding these four areas were there any that were more critical to**  
10 **RUCO's becoming a signatory?**

11 A. Yes. The ICFA issues and the increase on residential consumers rates  
12 needed to be resolved before RUCO could sign on and they were in the  
13 Agreement.

14  
15 **Q. Does this conclude your testimony on the Agreement?**

16 A. Yes it does.

# WILLOW VALLEY WATER COMPANY-KING STREET SYSTEM 2012 WATER QUALITY REPORT

This report contains information about the drinking water our utility provides to your home. Please take a moment to review this information and call us if you have any questions about our water service to you.

Willow Valley Water Company – A subsidiary of Global Water Resources (928) 768-4413

## Spanish (Español)

Este informe contiene información muy importante sobre la calidad de su agua para beber. Tradúscalo o hable con alguien que lo entienda bien.

## Is my water safe?

The Willow Valley Water Company – King Street System, public water system number AZ04-08-040, is dedicated to providing customers with water that meets or exceeds

all Federal and State drinking water standards. Extensive tests have been conducted on your water to ensure your tap water is safe to drink. Unless otherwise indicated, this report is a snapshot of last year's water quality. Included in this report are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with information because informed customers are our best allies.

In 2012, your drinking water met all State and Federal drinking water standards.

## Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised individuals such as those with cancer undergoing chemotherapy, or who have undergone organ transplants, or those with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

EPA / Centers for Disease Control and Prevention (CDC) provides guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial organisms. This information is available from the Federal Safe Drinking Water Hotline (800-426-4791) and on the CDC website at [www.cdc.gov](http://www.cdc.gov).

## Where does my water come from?

The King Street water system supplies water to its customers from wells within its service area. These wells range in depth from approximately 78 ft to 100 ft deep with a total production capacity of approximately 700 gallons per minute (gpm).

Water from the well is chlorinated for disinfection, treated to remove iron and manganese and stored in several tanks with a combined capacity of 320,000 gallons. Booster pumps and hydropneumatic tanks maintain constant pressure throughout the distribution system.

Willow Valley Water Company obtains all its water from groundwater sources. Iron and manganese are two unregulated inorganic substances that are commonly found in drinking water at concentrations often higher than secondary guidelines established by EPA/ADEQ. In the Mohave Valley, the unique hydrogeological conditions make the source water susceptible to increased concentration levels of both iron and manganese.

In order to assure the distribution of safe drinking water to our customers, we add chlorine for disinfection. The addition of chlorine combines with the naturally occurring iron and manganese in the source water which may cause both substances to precipitate out of the water. This reaction may cause the water to turn brown. While iron and manganese are not regulated substances, due to their associated aesthetic issues, Willow Valley Water Company has installed treatment systems and is replacing scale-encrusted pipelines to reduce the effects.

In 2011 WWVC began performing pilot studies of alternative oxidants, such as chlorine dioxide and potassium permanganate, in an attempt to reduce Total Trihalomethanes (TTHMs) concentrations and to reduce copper corrosion.

The depth from land surface to groundwater is less than 100 ft which minimizes natural filtration of the earth in the protection of the groundwater source. As such, proper disposal of residual oils and greases, chemicals or cleaners is of paramount importance to ensuring the viability and integrity of our community's water supply. The water produced by the wells meets or exceeds State and Federal drinking water standards and is monitored closely by the Willow Valley Water Company.

For additional information on water related issues, please contact us at 623-518-4000 or 928-768-4413 or visit us on our website at [www.gwresources.com](http://www.gwresources.com).



## Water Quality Data Table

Unless otherwise indicated, the table below lists all of the contaminants that we detected in the drinking water during the 2012 calendar year. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Substance	MCLG or MRDLG	MCL, TT or MRDL	Lowest Level	Highest Level	Running Annual Average	Compliance Achieved	Typical Source
<b>Disinfectants &amp; Disinfection By-Products</b> (There is convincing evidence that addition of a disinfectant is necessary for control of microbial organisms)							
Chlorine (ppm)	4	4	0.6	1.0	NA	Yes	Water additives used to control microbes
Chlorine Dioxide (ppb)	800	8	ND	420	NA	Yes	Water additives used to control microbes
Chlorite (ppm)	0.8	1.0	ND	0.93	NA	Yes	Water additives used to control microbes
Haloacetic Acids [HAA5] (ppb)	NA	60	15	25	20	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHM's] (ppb)	NA	80	46	93	69	Yes*	By-product of drinking water disinfection
*See 'Important water system information' section for more information on TTHM's							
<b>Inorganic Chemicals</b>							
Arsenic (ppb)	0	10	NA	1.8	NA	Yes	Erosion of natural deposits; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	NA	0.037	NA	Yes	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	NA	0.23	NA	Yes	Erosion of natural deposits; Water additives which promote strong teeth; Discharge from fertilizer and aluminum factories
<b>Unregulated Substances</b>							
Sodium (ppm)	NA	NA	NA	250	NA	Yes	Naturally occurring mineral
<b>Microbial Organisms</b>							
Total coliform (positive samples/month)	0	1	NA	0	NA	Yes	Naturally present in the environment
<b>Radionuclides</b>							
Alpha Emitters (pCi/L) 2009 Data	0	15	0.9	2.1	NA	Yes	Erosion of natural deposits
<b>Lead and Copper</b>							
Copper - action level at consumer taps (ppm) 2011 Data	Action Level		Your Water		Compliance Achieved	Typical Source	
Lead - action level at consumer taps (ppb) 2011 Data	90% of homes tested must have lead levels less than 15 ppb		90% of the homes tested had lead levels less than 3.4 ppb		Yes	Corrosion of household plumbing systems; Erosion of natural deposits	
	90% of homes tested must have copper levels less than 1.3 ppm		90% of the homes tested had copper levels less than 0.47 ppm		Yes	Corrosion of household plumbing systems; Erosion of natural deposits	

## General information about drinking water

To ensure your tap water is safe to drink, the EPA issues regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for substances in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that water poses a health risk. More information about these contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

Sources of drinking water (both tap water and bottled water) include rivers, lakes, reservoirs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive materials, and can pick up contaminants resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include the following:

- Microbial organisms including viruses, bacteria or parasites (such as *Cryptosporidium* or *Giardia*), which may come from agricultural or livestock operations and wildlife;
- Inorganic chemicals such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
- Pesticides and herbicides which may come from a variety of sources such as agriculture, storm water runoff and residential uses;
- Organic chemicals including synthetic and volatile organic compounds, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic tanks;
- Radioactive chemicals which occur naturally or result from oil and gas production and mining activities.

There are a number of ways to save water and they all start with you!

### Indoor Water Saving Tips

- Check faucets and pipes for leaks. Repair or replace as necessary.
- Run your washing machine and dishwasher only when they have a full load or adjust water levels for smaller loads.
- Time your shower to keep it under 5 minutes. You'll save up to 1000 gallons a month.
- Don't use running water to thaw food.
- Make sure your toilet flapper doesn't stick open after flushing.

### Outdoor Water Saving Tips

- Install covers on pools and spas and check for leaks around your pumps.
- Plant during the spring or fall when the water requirements are lower.
- Minimize evaporation by watering during the early morning hours, when temperatures are cooler and winds are lighter.
- Use a hose nozzle and turn off the water while you wash your car and save more than 100 gallons.

For over a hundred other ways to save water, visit  
[www.wateruseitwisely.com](http://www.wateruseitwisely.com)



## Important information on Total Trihalomethanes (TTHM's)

The water system is required to conduct quarterly monitoring for the Stage 1 Disinfectant and Disinfection By-Products in the distribution system. For trihalomethanes (TTHMs) compliance is determined by a running annual average (RAA), which is the mathematical average of four consecutive quarterly results. In the second quarter of 2012 the TTHMs concentration exceeded the MCL. Although the monthly sample exceeded the MCL the RAA did not. At no time was the system out of compliance with the requirements of the Safe Drinking Water Act. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

### How can I get involved ?

Water conservation is everyone's responsibility. You can directly impact the availability of water in your community through judicious use of water by: irrigating at night, employing timers for irrigation systems, maximizing xeriscape, fixing leaky faucets, etc. Please visit our website at [www.gwresources.com](http://www.gwresources.com) for additional information on water conservation practices.

Willow Valley Water Company customers may get involved in their water system through such activities as well-head protection (activities around wells to prevent the contamination of the ground water source that provides water to our community) and attendance at public meetings to ensure that

the community's need for safe drinking water is considered in making decisions about land use. And all consumers can do their part to conserve water and properly dispose of household chemicals.

In addition, reporting unauthorized entry or access to the well sites or booster stations is a critical component to ensuring continued safety and security of our community water sources. Should you notice any unusual activity in or around wells or tank sites, please contact law enforcement officials by dialing 911.

## Upcoming drinking water regulations

The 1996 amendments to the Safe Drinking Water Act (SDWA) require that once every five years, the U.S. Environmental Protection Agency (EPA) issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWSs). The Unregulated Contaminant Monitoring Rule (UCMR) provides EPA and other interested parties with scientifically valid data on the occurrence of these contaminants in drinking water. These data serve as a primary source of occurrence and exposure information that the EPS uses to develop regulatory decisions. Willow Valley Water Company—King Street will begin sampling for the third phase of this program, or UCMR3, in 2013.

### Unit descriptions

- ppm: parts per million; milligrams per liter (mg/L)  
ppb: parts per billion; micrograms per liter (ug/L)  
pCi/L: picocuries per liter (a measure of radioactivity)  
Positive samples/month: number of samples taken monthly that were found to be positive  
NA: not applicable

### Important drinking water definitions

- MCLG: Maximum Contaminant Level Goal - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.  
MCL: Maximum Contaminant Level - The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.  
TT: Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water.  
AL: Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

#### Variances and Exemptions:

State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

- MRDLG: Maximum Residual Disinfectant Level Goal - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

- MRDL: Maximum Residual Disinfectant Level - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

### For more information please contact:

Global Water, Willow Valley Water Company - King Street, PWS AZ04-08-040  
Address: 21410 N. 19th Ave., Suite 201, Phoenix, AZ 85027  
P: 928-768-4413 F: 623-580-9659 [www.gwresources.com](http://www.gwresources.com)



## Michelle Wood

---

**From:** Tim Sabo <tsabo@rdp-law.com>  
**Sent:** Thursday, August 15, 2013 12:48 PM  
**o:** Maureen Scott; Wesley Van Cleve (WVancleve@azcc.gov); Brian Smith (BESmith@azcc.gov); Michelle Wood; William Sullivan  
**Subject:** FW: SIB for Global Water utilities  
**Attachments:** Willow Valley SIB (W) PLANT TABLE I - Gordon Street.pdf; SIB GORDON Dr Figure.pdf; Willow Valley 5-year CIP.pdf; Willow Valley Water Company Engineering Report with out figures 2,3,4 and appendices.pdf

Michele was having an issue opening some of the attachments, so I am resending the 4 attachments.

Timothy J. Sabo  
Roshka DeWulf & Patten, PLC  
One Arizona Center  
400 East Van Buren, Suite 800  
Phoenix, AZ 85004  
Phone: 602.256.6100  
Fax: 602.256.6800  
Email: [tsabo@rdp-law.com](mailto:tsabo@rdp-law.com)

**For more information about Roshka DeWulf & Patten, please see our website at [www.rdp-law.com](http://www.rdp-law.com).** This message and any of the attached documents contain information from the law firm of Roshka DeWulf & Patten, PLC and may be confidential and/or privileged. If you are not the intended recipient, you may not read, copy, distribute or use this information and no privilege has been waived by your inadvertent receipt. If you have received this transmission in error, please notify the sender by reply e-mail and then delete this message. Thank you.

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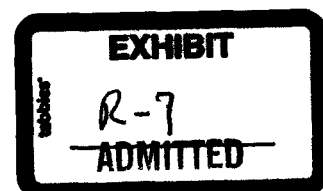
**om:** Ron Fleming [<mailto:ron.fleming@gwresources.com>]  
**sent:** Wednesday, August 14, 2013 9:28 AM  
**To:** Jian Liu; Jason Thuneman; Willie Farmer  
**Cc:** Gerald Becker; Joanne Ellsworth; Tim Sabo; [paul@arizonainsight.com](mailto:paul@arizonainsight.com); Del Smith  
**Subject:** SIB for Global Water utilities

Hi Jian – attached, please find the following documents for our Willow Valley SIB proposal:

- SIB Table for the project we are proposing in Year 1 (2014) – a critical pipeline replacement project, including associated valves and services, along Gordon Street in one of the oldest areas in Willow. Unfortunately, this line runs through an easement in customers' backyards, is prone to failure, and isn't looped also causing WQ issues/complaints. The proposed project addresses all these issues.
- A figure depicting this project.
- A 5 Year SIB related CIP program which contains more cost detail on the Gordon Street project, and for the projects we are planning for in the subsequent 4 years.
- Finally, I am re-attaching the engineering report on the condition of the Willow Valley distribution system as a whole as originally submitted with my testimony. This attachment does not have all the appendices, as they are too large to send by email. But they should be attached to our original filing, and we can bring a copy of these documents on CD to you when we meet shortly to review our SIB filing.

We look forward to working with you on this. I have copied Jason Thuneman (Director of Project Management) and Willie Farmer (Lead Design Engineer) who will be leading this effort for us. Please let us know some dates and times you are available to meet to review this information together.

Thank you,





**Ron Fleming**  
President, Regulated Utilities  
[ron.fleming@gwresources.com](mailto:ron.fleming@gwresources.com)

Phn 623.580.9600 x118  
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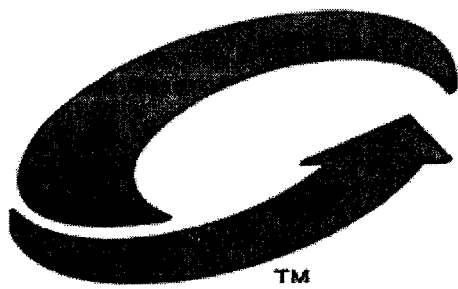
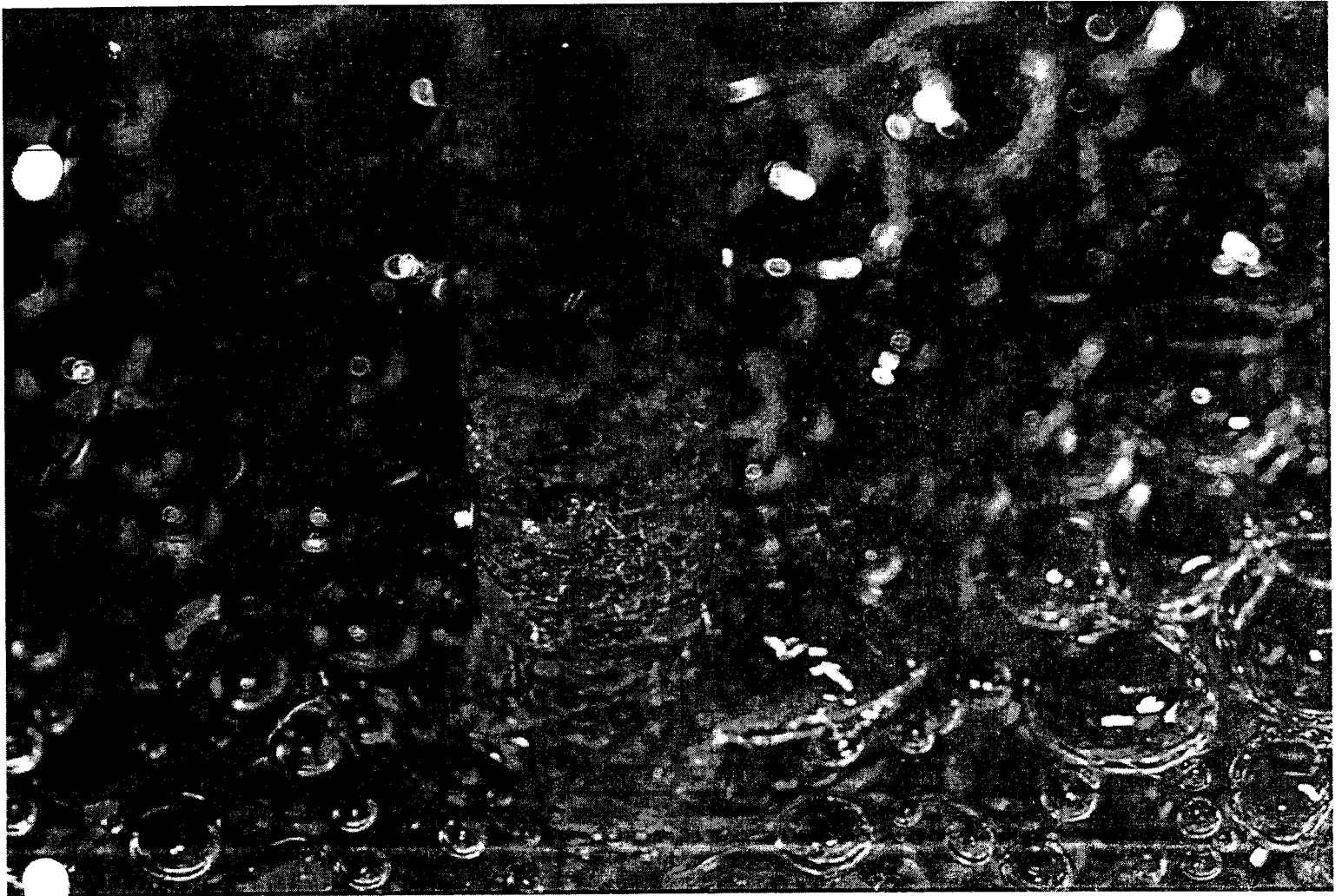
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Willow Valley Water Company  
Water System Master Plan &  
Preliminary Engineering Report  
August 2013



**GLOBAL WATER**  
RELIABLE • RENEWABLE • REUSABLE

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**Water System Master Plan & Preliminary Engineering Report**

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- Appendix A - Steady-State Model Results
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  - Appendix C - Detailed Years 2-5 CIP Plan Calculations
-

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**1.0 EXECUTIVE SUMMARY**

Water quality and system degeneration have been significant concerns in the Willow Valley water system. The analysis performed herein will focus primarily on the physical condition of infrastructure, as well as water age and the associated high production of trihalomethanes (TTHMs) in the system.

This study will include the following main components:

1. Existing Infrastructure Audit: The existing water system infrastructure will be evaluated. Age and condition of existing infrastructure will be established
2. Water System Modeling: A model will be prepared of the water system in order to evaluate criticality of existing components, as well as evaluate water age and TTHM formation in the system.
3. 2-5 Year Capital Improvement Plan: Based on parameters such as age, condition, and criticality, a 5- year Capital improvement plan will be prepared to provide the replacement of the aging system components.

In conjunction with this study, an audit of the existing infrastructure was performed. It was determined that the water distribution centers are in reasonable condition, though some improvements to the treatment processes will be required due to water quality concerns. It was also determined that the condition of existing piping is poor, and replacement of the majority of the water system piping is required.

Water modeling of the system was also performed. The analysis included evaluation of water ages. Through the water system modeling, it was determined that water age is not a significant factor contributing to the high TTHM levels measured in the system. Further analysis of water quality and system processes indicated that the source water contained high levels of total organic carbon (TOC), coupled with high alkaline water resorted to unusually high levels of chlorine were being dosed into the treatment process in order to oxidize the iron and manganese prior to filtration, as well as maintain an adequate residual in the system.

It was determined that the high TTHM levels were the result of direct oxidation of the high levels of TOC with sodium hypochlorite. A study was therefore conducted in 2010 to determine if an alternate oxidant may be used which would meet raw water treatment requirements while limiting resultant THM and corrosion issues. From this report, it was recommended that an alternate oxidant be utilized up front to oxidize the TOC, iron, and manganese, and that sodium hypochlorite be eliminated as the primary oxidant and disinfectant. Chlorine gas feed systems were added for disinfection residual only after treatment has taken place. Therefore in 2010 an alternative oxidant improvement project, including on-site chlorine dioxide generators and potassium permanganate feed systems were completed. In addition a separate corrosion control study recommended feeding polyphosphate into the system to further corrosion control in the distribution system. The polyphosphate feed systems were also completed in 2010 by Global Water Resources.

A 2-5-year capital improvements plan was prepared to implement the required system improvements. This plan includes the immediate process changes to bring TTHM, and copper levels into compliance, as well as valve replacement to ease the burden of isolating main breaks in

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**Water System Master Plan & Preliminary Engineering Report**

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the existing system. Strategically locating valve replacements within the system will allow the system to be more functional during the water mains replacement program period. The water mains replacement program will ultimately replace the aging infrastructure that currently experiences in frequent line breaks.

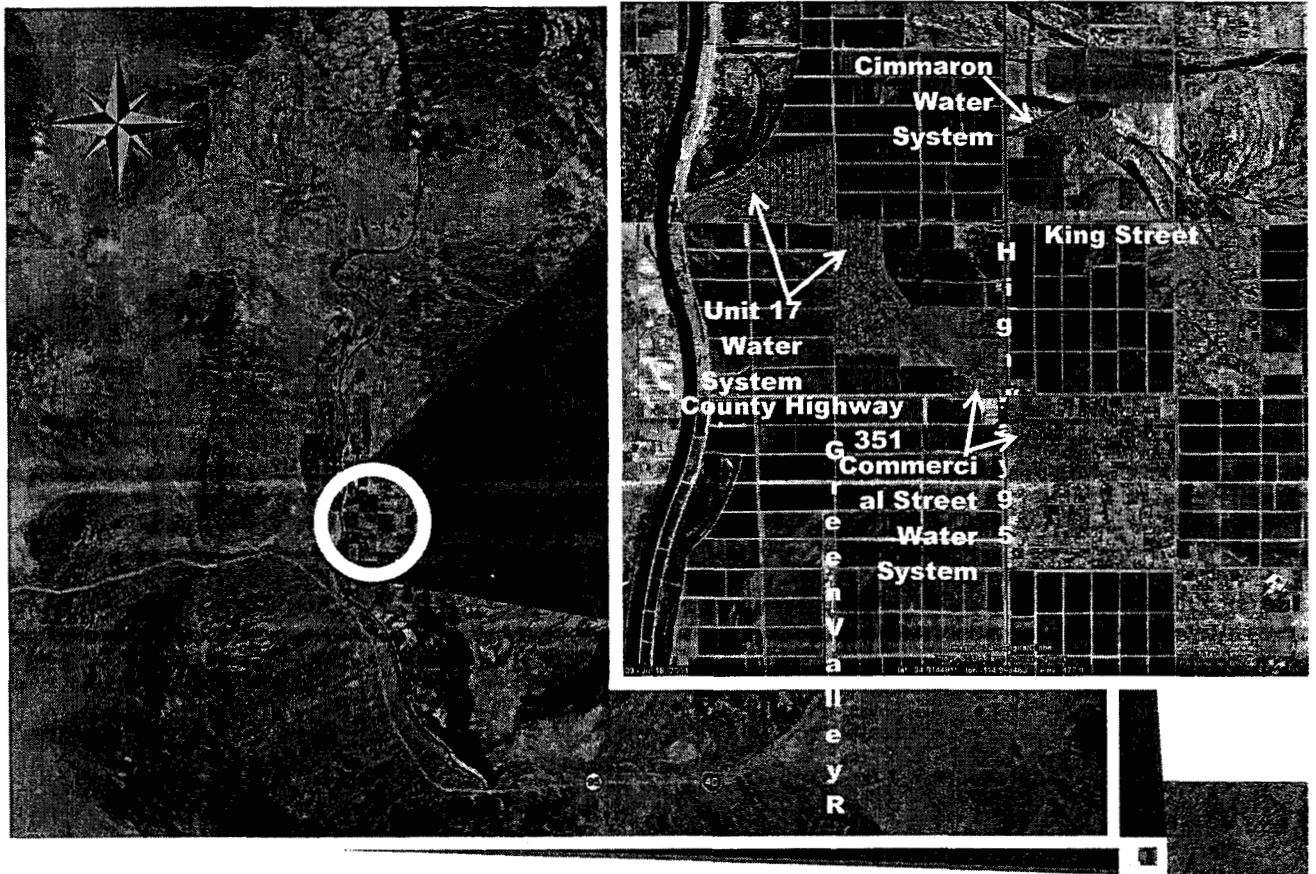
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**2.0 INTRODUCTION**

**2.1 Project Location**

Willow Valley is located in Mohave County, Arizona. The service area of the Willow Valley Water Company includes water services located within sections 21, 23, 27, and 35 of Township 18N Range 22W. The vicinity map below provides a graphical representation of the location of the service area of the Willow Valley Water Company.



**Figure 1 - Vicinity Map**

**2.2 Project Background**

The service area of the Willow Valley Water Company is comprised of three water systems. These water systems are as follows:

1. Cimarron Water System
2. Unit 17 Water System
3. Commercial Street Water System

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These water systems are generally for residential use only, except that the Commercial Street Water System has approximately 23 service connections for commercial/industrial users. The Commercial Street Water system was originally constructed in the early 1960's, though a centralized water supply facility was constructed in the late 1990's that eliminated the need for two wells in the system that are still in place. However, the 2 wells are not used due to water quality concerns and inadequate equipping. The Commercial Street water system does not currently have an independent water supply, but is provided water from the Unit 17 water system through a 6-inch PVC transmission line installed in approximately 1998.

Development of the Unit 17 Water system also began in the early 1960's, and steadily increased into the early 1980's. Development of one small area at the eastern boundary of this area was begun in recent years, but was not completed, presumably due to economic conditions.

Development of the Cimarron Water system was initiated in 1990. Development has occurred steadily in this area, with improvements as recent as 2007. This service area is built out based on existing planning, though additional capacity in the system exists for potential expansion in the future.

### **2.3 Project Scope**

Water quality and system degeneration have been significant concerns in the Willow Valley water system. The analysis performed herein will focus primarily on the physical condition of infrastructure, as well as water age and the associated high production of trihalomethanes (TTHMs) in the system.

This study will include the following main components:

4. Existing Infrastructure Audit: The existing water system infrastructure will be evaluated. Age and condition of existing infrastructure will be established
5. Water System Modeling: A model will be prepared of the water system in order to evaluate criticality of existing components, as well as evaluate water age and TTHM formation in the system.
6. 2-5-year Capital Improvement Plan: Based on parameters such as age, condition, and criticality, a 2-5-year Capital improvement plan will be prepared to provide the replacement of the aging system components.

### 3.0 EXISTING WATER SYSTEM INFRASTRUCTURE AUDIT

#### 3.1 Population

There are approximately 280 residential service connections in the Cimarron Water System, 1,419 residential service connections in the Unit 17 Water System, and 137 residential service connections for the Commercial Street Water System. The Commercial Street Water System also has approximately 23 non-residential service connections.

#### 3.2 Demand

Demands for residential users in the Cimarron Water System are approximately 131.8 gpd per home. Demands for residential users in the Unit 17 and Commercial water systems are approximately 186.8 gpd. Demands for the commercial users are approximately 554.2 gpd per meter. These demands are lower than the typical values for water consumption due to perceived water quality issues in the system. These demands also include the water losses. As infrastructure is replaced, demands may become less due to a reduction in water loss in the system.

#### 3.3 Service Area

Though the service area for the Willow Valley Water Company is spread out over an area approximately 9 square miles, the elevation only varies from 467 ft amsl to 491 ft amsl, a difference of 24 feet. The service area is comprised primarily of residential users, though there is a small area of commercial/industrial development that is also included.

#### 3.4 Unit 17 Water System Assets

The water system is comprised of the following water system assets:

1. Two (2) Water Distribution Centers (WDCs)
2. Four (4) Wells
3. Two (2) Treatment Systems
4. Two (2) Potable Water Storage Reservoir
5. Six (6) Distribution Pumps
6. Two (2) Hydropneumatic Tanks
7. One (1) On-Site Chlorine Dioxide Generator and ancillary equipment
8. One (1) Chlorine gas feed system and ancillary equipment
9. One(1) Polyphosphate feed system and ancillary equipment
10. One (1) Hopper-bottom solids separation Tank and ancillary equipment
11. One (1) Sodium Permanganate Feed System and ancillary equipment
12. Distribution Waterlines

Figure 2 below provides a graphical representation of the water system infrastructure.



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Figure 2 - Unit 17 Water System Infrastructure

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#### 3.4.1 Water Distribution Centers

There are currently two (2) WDCs. The Kingsley Street WDC is located in the northwestern portion of the Unit 17 system at the intersection of Kingsley Street and Clearview Drive. The Green Valley Road WDC is located along Green Valley Road approximately  $\frac{1}{4}$  of a mile south of King Street. The Green Valley Road is the primary water source for the system, with the Kingsley Street WDC operating as a redundant supply.

#### 3.4.2 Wells

There are currently a total of four (4) wells in the Unit 17 Water System. However, two of these wells are not currently in use. One of the existing wells is located at the Kingsley Road WDC, and the other is at the Green Valley Road WDC. The Green Valley Road Well is a 6-inch, 30 hp Goulds submersible pump with a design capacity of 500 gpm. The Kingsley Road Well is a 15-hp Simmons submersible pump with a design capacity of 500 gpm. The size of the Kingsley Road Well pump is not known.

#### 3.4.3 Treatment Systems

The source water from the wells is high in total organic carbon (TOC), iron and manganese. There are currently two (2) water treatment systems in the Unit 17 area. One is located at each WDC, and is plumbed to receive raw water directly from the well, and discharge into the onsite potable storage reservoir. The treatment systems are Pureflow iron and manganese treatment systems. Under current operation, raw well water is dosed heavily with a combination of chlorine dioxide and sodium permanganate to oxidize the iron, and then the water is filtered by a sand filter with a proprietary sand media and discharged into the reservoir. Adequate chlorine is dosed after the treatment system to maintain chlorine residual in the water system. In addition, polyphosphate is fed prior to storage to assist with *corrosion control* in the distribution system.

#### 3.4.4 Potable Storage Reservoirs

The Green Valley Road reservoir is 34 feet in diameter and 24 feet tall. The volume of the reservoir is approximately 163,000 gallons. The Kingsley Road Reservoir is located off site at a separate storage facility northwest of the Kingsley Road WDC. The offsite reservoir is 32 feet in diameter and 16 feet tall. The volume of the Kingsley Road reservoir is approximately 96,000 gallons.

#### 3.4.5 Distribution and Fire Pumps

The Green Valley Road WDC includes three pumps. There are two 15 hp distribution pumps and a 40 hp fire pump. The pumps are all Goulds end suction centrifugal pumps. Catalogue pump curves were obtained from Goulds for the purposes of modeling.

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The Kingsley WDC also includes three pumps. There are two 15 hp distribution pumps and a 30 hp fire pump. The 15 hp pumps are Goulds end suction pumps, but the fire pump is a Berkley close coupled centrifugal pump.

#### 3.4.6 Hydropneumatic Tanks

At each WDC site there is a pressure tank the floats on the system as surge protection, and to prevent frequent cycling of the pumps. The Green Valley Road hydropneumatic tank is 72" in diameter, and 24'-8" in length. The tank has a storage volume of 5,216 gallons. The Kingsley Road hydropneumatic tank is 60" in diameter and 15' in length. The tank has a storage volume of 2,202 gallons.

#### 3.4.7 Distribution Waterlines

The distribution water lines vary from 3" to 8" in diameter, and include pipe materials of ductile iron, PVC, and asbestos. In general, the oldest water lines in the system are 4-inch PVC and asbestos. The newer pipes (Newer than 1970) have a minimum diameter of 6-inches and are PVC. The majority of the system is comprised of pipes older than 40 years. Field evaluation of the system by the operations staff has revealed that approximately 90% of valves are not operable. The inoperable valves are primarily located within the older pipe network.

### 3.5 Commercial Street Water System Assets

The water system is comprised of the following water system assets:

1. One(1) Water Distribution Center (WDC)
2. Three (3) Wells
3. One (1) Potable Water Storage Reservoir
4. Two (2) Distribution Pumps
5. One (1) Hydropneumatic Tanks
6. Distribution Waterlines

Figure 3 below provides a graphical representation of the water system infrastructure.

Figure 3 - Commercial Street Water System Infrastructure

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**3.5.1 Water Distribution Centers**

There is currently one water distribution facility serving the Commercial Street system. The facility is located at approximately Commercial Street and Highway 95. This facility is provided water from the Unit 17 system.

**3.5.2 Wells**

There are currently a total of three (3) wells located within the Commercial Street System. However, due to water quality concerns. None of the wells are currently in use.

**3.5.3 Potable Storage Reservoirs**

A single 47,000-gallon storage reservoir is included in the Commercial Street facility the reservoir is filled off of a 6-inch transmission line extending from the Unit 17 system. The reservoir fills off of system pressure and feeds the distribution pumps for the Commercial Street system.

**3.5.4 Distribution Pumps**

Water distribution within the Commercial Street system is provided by two (2) 15-hp centrifugal pumps. These pumps draw water from the storage reservoir and discharge from the site into an 8-inch distribution line in Highway 95. This distribution line extends to the north to serve commercial users, and south to a residential development.

**3.5.5 Hydropneumatic Tanks**

A hydropneumatic tank at the Commercial Street facility regulates the pressure at the discharge of the distribution pumps. The tank is approximately 2,200 gallons.

**3.5.6 Distribution Waterlines**

The distribution water lines vary from 4" to 8" in diameter, and include pipe materials of ductile iron, PVC, and asbestos. In general, the oldest water lines in the system are 4-inch PVC and asbestos. The majority of the system is comprised of pipes older than 40 years. Field evaluation of the system by the operations staff has revealed that approximately 90% of the valves are not operable.

**3.6 Cimarron Water System Assets**

The water system is comprised of the following water system assets:

1. One (1) Water Distribution Center (WDC)
2. Two (2) Wells
3. One (1) Treatment System
4. One (1) Potable Water Storage Reservoir
5. Four (4) Distribution Pumps
6. One (1) Hydropneumatic Tank
7. One (1) On-Site Chlorine Dioxide Generator and ancillary equipment
8. One (1) Chlorine gas feed system and ancillary equipment
9. One(1) Polyphosphate feed system and ancillary equipment

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- 10. One (1) Hopper-bottom solids separation Tank and ancillary equipment
- 11. Distribution Waterlines

Figure 4 below provides a graphical representation of the water system infrastructure.

Figure 4 - Cimarron Water System Infrastructure

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3.6.1 Water Distribution Center

There is currently one (1) WDC for the Cimarron Service Area. It is located along Cimarron Boulevard to the east of Highway 95 (Mohave Valley Highway). The WDC includes one of the wells, the treatment system, storage reservoir, distribution pumps and hydropneumatic tank.

3.6.2 Wells

There are currently a total of two (2) wells in the Cimarron service area. These wells are referred to as the little well and the big well based on casing diameters (6" and 16", respectively). The big well is located within the WDC, and is the primary water supply for the system. The little well is located across Cimarron Boulevard from the WDC, and serves only as a backup water supply. Each of the wells has a design capacity of 300 gpm.

3.6.3 Treatment Systems

The source water from the wells is high in total organic carbon (TOC), iron and manganese. There is currently one (1) water treatment systems in the Cimarron area. The treatment system is configured to receive water from both the little and big well. The treatment system is a Pureflow iron and manganese treatment system. Under current operation, raw well water is dosed heavily with chlorine dioxide to oxidize the iron, and then the water is filtered by a sand filter with a *proprietary sand media* and discharged into the reservoir. Adequate chlorine is dosed after the treatment system to maintain chlorine residual in the water system. In addition, polyphosphate is fed prior to storage to assist with *corrosion control* in the distribution system. Potable Storage Reservoirs

The Cimarron reservoir is located at the WDC and is 45 feet in diameter and 16.5 feet tall. The volume of the reservoir is approximately 196,000 gallons. While the reservoir is 16.5 feet tall, current operations maintain the water levels at levels of 3.3 to 5 feet in order to prevent high water ages.

3.6.4 Distribution and Fire Pumps

The Cimarron WDC includes four (4) distribution pumps. There are two 20 hp distribution pumps and two 25 hp fire pumps. The pumps are all Peerless end suction centrifugal pumps. Catalogue pump curves were obtained from Peerless for the purposes of modeling.

3.6.5 Hydropneumatic Tanks

At the WDC site there is a pressure tank the floats on the system as surge protection, and to prevent frequent cycling of the pumps. The Cimarron hydropneumatic tank is 74" in diameter, and 26' in length. The tank has a storage volume of 5,814 gallons.



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### 3.6.6 Distribution Waterlines

The distribution water lines vary from 6" to 10" in diameter, and are all PVC. In general, the oldest water lines in the system are 4-inch PVC and asbestos. The majority of the system, including the wells and WDC were installed between 1990 and 1996. Two small developments to the north of Cimarron Boulevard were added to the system from 2004 to 2007.

### 3.7 Water Usage Audit

When estimating water losses, it is important to understand that the Commercial Street water supply facility is filled with water from the Unit 17 water system. Therefore, for the sake of comparing usage and production, the Commercial Street usage will be combined with the Unit 17 usage.

Water production data was obtained for the wells for 2010. From December 9, 2009 to October 1, 2010, production volumes of 89.8 MG and 10.9 MG were produced by the Unit 17 wells and the Cimarron wells, respectively. This results in average water production of 303,000 gpd and 36,900 gpd, respectively. It should be noted that in each system there are water losses for backwashing the treatment equipment and flushing pipes. These losses are estimated to be an average of 4,267 gpd, and 1,566 gpd, respectively.

Water consumption was also measured for approximately the same time. From December 1, 2009 to October 10, 2010, the total consumption volumes for the Unit 17 and Cimarron systems were estimated to be 69.8 MG and 8.7 MG, respectively. This results in an average daily consumption rates of 223,000 gpd and 27,800 gpd, respectively.

Comparing water consumption to water production reveals a large disparity. Removing the estimated losses for backwashing and flushing, the total water losses for the Unit 17 and Cimarron systems are 76,000 gpd, and 7,500 gpd respectively. It is expected that these losses are largely due to leakage and line breaks in an aging water system. In Unit 17, water losses account for 25% of the total production volume. In this part of the system, higher water losses would be expected due to older infrastructure and more line breaks. In Cimarron, water losses account for approximately 20% of the total production volume.

## 4.0 HYDRAULIC MODELING

### 4.1 System Components

A hydraulic model was prepared to simulate system operations, as well as evaluate criticality, age and TTM formation in the system. The hydraulic model begins with the groundwater level, modeled as a reservoir with the hydraulic grade set to the pumping water level established by the pumping test performed when the wells were installed. Well pumps are modeled as pumps with the pump curves and efficiencies taken directly from actual system pump curves. The storage tank is modeled as a tank with dimensions and levels set to match existing conditions.

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The distribution and fire pumps are modeled as pumps with curves for head and efficiency versus flow rate input based on actual provided pump curves. The hydropneumatic tank is modeled as a pressure vessel using the ideal gas law. The water level and pressure within the tank were measured in the field to provide a baseline for the settings required in the model. All waterlines in the model are set as PVC waterlines with a C-Coefficient of 130. The PRV is modeled as a PRV with the hydraulic grade set to maintain the requisite Zone 1 hydraulic grade.

#### 4.2 System Topography

USGS topographic Digital Elevation Model (DEM) data was obtained. The DEM data was imported into a GIS document and elevations were translated onto the water system components. The service area for the Willow Valley Water Company is relatively flat with an elevation differential of only 24 feet across the entire service area.

#### 4.3 Design Criteria

Global Water has established a set of design criteria for water systems to ensure that adequate pressures and flows are available to consumers without causing excessive wear in the system. These criteria are summarized below.

Table 1 - Global Water Design Criteria	
Parameter	Value
Minimum System Pressure (Peak Hour Demand)	40 psi
Maximum System Pressure <sup>1</sup> (Static)	80 psi
Minimum System Pressure (Max Day Plus Fire Flow Demand)	20 psi
Maximum Pipe Velocity (Max Day Demand)	5 fps
Maximum Pipe Head Loss Gradient (Max Day Demand)	6 ft/1,000 ft
Maximum Pipe Velocity (Peak Hour Demand)	6 fps
Maximum Pipe Head Loss Gradient (Peak Hour Demand)	8 ft/1,000 ft
Maximum Pipe Velocity (Max Day Plus Fire Flow Demand)	8 fps
1. Static pressures in excess of 80 psi may be permitted if individual PRVs are installed on all homes that may experience these pressures.	

#### 4.4 Steady-State Demand Simulations

The system was modeled for average day, maximum day, and peak hour demand conditions. A fire flow evaluation was also performed to determine the effects of fire flow on the system. Demands were entered into the model for each water meter currently connected to the system. Demand placement was selected to conservatively estimate the head losses in the system. The detailed results of the steady state water system modeling are included in Appendix A.

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Table 2 - Steady State Model Output Summary

Scenario	Minimum System Pressure (psi)		Maximum System Pressure (psi)		Maximum Velocity (fps)		Maximum Head Loss Gradient (ft/1,000 ft)		Minimum Fire Flow Available (gpm)	
	Value	Node	Value	Node	Value	Pipe	Value	Pipe	Value	Node
Ave. Day Demand	48.3	J-301	75.0	J-175	12.77	P-370	148.07	P-370		NA
Max Day Demand	48.2	J-301	74.5	J-175	12.77	P-370	148.07	P-370		
Peak Hour Demand	47.9	J-301	73.3	J-175	12.77	P-370	148.07	P-370		NA

From the system results summary, it may be seen that pressures within the system are within a reasonable level. High system velocities and head loss gradients are experienced within the existing 4-inch diameter pipes. The pipe experiencing the highest head loss and velocity is a 4-inch pipe connecting the existing 500 gpm Cimarron well to the treatment system. There are a total of two pipes that exceed the velocity constraints. The second pipe only marginally exceeds the constraint with a maximum velocity of 8.81 fps during peak hour demands, and 6.57 fps during maximum day demand. This second pipe is a 4-inch hydropneumatic tank connection line at the Green Valley Road WDC.

A total of seven (7) pipes exceed the maximum day head loss gradient constraint, including the two pipes described above. All of these pipes are 4-inches in diameter. Three of the pipes are located immediately adjacent to the Green Valley Road WDC, with the remainder located within the Green Valley Road WDC, the Cimarron WDC or the Kingsley Road WDC. It is recommended that waterline replacements be considered for these pipes to provide more reasonable head losses. The pipes and associated maximum day head loss gradients are summarized in the table below:

Table 3 - Maximum Day Demand Pipe Summary Table

Label	Install. Year	Diameter (inches)	Material	MDD Velocity (fps)	MDD Head Loss Gradient (ft/1,000 ft)	Description
P-370	1998	4	PVC	12.77	148.07	Connects Cimarron Well to treatment system
P-214	1998	4	DIP	6.57	43.23	Green Valley Road hydropneumatic tank discharge
P-222	1998	4	DIP	5.17	27.15	Commercial Street hydropneumatic tank fill
P-206	1971	4	PVC	4.09	18	Adjacent to Green Valley Road WDC discharge
P-196	1995	4	DIP	2.84	9.15	Kingsley Road WDC hydropneumatic tank discharge
P-207	1971	4	PVC	2.47	7.09	Adjacent to Green Valley Road WDC discharge
P-137	1971	4	PVC	2.41	6.73	Adjacent to Green Valley Road WDC discharge

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A total of nine (9) pipes exceed the peak hour head loss gradient constraint, including the all seven pipes described above under the maximum day demand pipe summary. The additional two pipes are 6-inch diameter pipes within the existing Green Valley Road WDC. It is recommended that waterline replacements be considered for these pipes to provide more reasonable head losses. The pipes and associated maximum day head loss gradients are summarized in the table below:

Table 4 - Peak Hour Demand Pipe Summary Table

Label	Install. Year	Diameter (inches)	Material	MDD Velocity (fps)	MDD Head Loss Gradient (ft/1,000 ft)	Description
P-370	1998	4	PVC	12.77	148.07	Connects Cimarron Well to treatment system
P-214	1998	4	Ductile Iron	8.81	74.56	Green Valley Road hydropneumatic tank discharge
P-196	1995	4	Ductile Iron	7.18	50.96	Commercial Street hydropneumatic tank fill
P-206	1971	4	PVC	5.55	31.64	Adjacent to Green Valley Road WDC discharge
P-222	1998	4	Ductile Iron	4.17	18.66	Commercial Street hydropneumatic tank fill
P-207	1971	4	PVC	3.27	11.86	Adjacent to Green Valley Road WDC discharge
P-137	1971	4	PVC	3.12	10.92	Adjacent to Green Valley Road WDC discharge
P-213	1998	6	Ductile Iron	3.92	10.35	Green Valley Road hydropneumatic tank discharge
P-212	1998	6	Ductile Iron	3.92	10.34	Green Valley Road WDC discharge

#### 4.5 Water Age/TTHM Formation Analysis

TTHMs most commonly form when organic carbon is oxidized by chlorine. The dosage of chlorine reportedly required in the raw well water in order to maintain chlorine residual in the system is 11 mg/L. This is likely due to the high amount of organics in the groundwater (2 mg/L). The post treatment chlorine residual after the oxidation of organics and iron and filtration is less than 2 mg/L. Therefore it is likely that high formation of TTHMs is occurring at this point in the system.

Another study evaluating the general water quality in the system is being conducted that recommends a change in the oxidant used prior to treatment. It is being recommended that potassium permanganate, chlorine dioxide, or ozone be used to oxidize the organics and the iron prior to treatment. Chlorine will then be dosed at another point after treatment to ensure chlorine residuals are maintained in the system. Water age evaluation will provide an

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indication of whether TTHM formation will continue to be an issue once the initial oxidation of organics is accomplished with another oxidant that does not contribute to TTHM formation.

Generally, in water systems, TTHM formation is directly related to the age of the water in the system. Therefore, water age will be evaluated, and the level of TTHM formation in the system may be evaluated based on water age. In order to evaluate the water age, and consequently the TTHM formation in the system, an extended period simulation was run for average day demands.

Initial water age values were iteratively adjusted so that the system age would equalize more quickly. The simulation was run for a total of 120 hours so that water ages would represent equalized values. Water age was tracked at various points in the system. These results are summarized below. A water system map including water age contours is provided in Appendix B. Please note that the water age contours are the water age at 120 hours, and do not necessarily represent the maximum water age. Detailed graphs of water age versus time through the simulation at each of these points in the system are also available in Appendix B.

Table 5 - Extended Period Model Output Summary

Location	Minimum Age <sup>1</sup> (hours)	120-Hour Age (hours)	Maximum Age <sup>1</sup> (hours)
Green Valley WDC (Measured at hydropneumatic tank)	7	9.8	15
Kingsley Road WDC (Measured at hydropneumatic tank)	19.5	20.4	25
Commercial Street WDC (Measured at hydropneumatic tank)	39.5	41.5	49
Cimarron WDC (Measured at hydropneumatic tank)	20.5	34.8	44
467 KINGSLEY	32	37.4	45.5
7793 GREEN VALLEY	8.5	12.7	15.5
8170 ASPEN DR	11	16.5	20.5
1093 PINE DR	9	13.0	20
1430 COMM. ST.	47.5	48.8	52.5
8663 ASH ST	45.5	50.5	54
1568 E PUMA RD	42	43.6	47.5
1648 E VALLEY PKWY	27.5	35.0	47.5
1770 E EMILY DR	52	57.0	60

1. Minimum/Maximum Water Age were evaluated as the minimum/maximum value for water age experienced after the water age equalized for the given node. Please refer to the graphs in Appendix B for more details.

The AWWA/AWARF Water Industry Data base indicates average distribution retention time of 1.3 days (31 hours), and a maximum retention time of 3.0 days (72 hours) to be acceptable. Of 202 nodes in the system, approximately 12 nodes within the Cimarron service area, 4 nodes within the Commercial Street WDC service area and one node within the Unit 17 WDC service

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area regularly experience water ages in excess of 72 hours. All of the nodes within the Unit 17 and Commercial Street WDC service areas are at the end of long dead end lines with relatively small demands. Table 6 below summarizes the high water ages experienced within the system.

Table 6 - High Water Age Summary

Service Area	Homes with Ages in Excess of 72 Hours	Total Connections	Percentage of Connections
Unit 17 WDC	3 Residential	1,419 Residential	0.2%
Commercial Street WDC	9 Residential	137 Residential 23 Commercial	5.6%
Cimarron	72 Residential	280 Residential	25.7%

The water ages in the Cimarron WDC service area tend to be larger than the Unit 17 system, despite the shorter distance of travel for three primary reasons. The reservoir at the Cimarron site is significantly larger than the Unit 17 reservoir. To mitigate this, only the bottom 5 feet of the reservoir is currently in use. The second reason for higher water ages is that the system is constructed of 8-inch and 10-inch water lines, whereas the majority of the Unit 17 system is 4-inch and 6-inch diameter pipe. The larger pipe diameter in the Cimarron system results in less system flushing for an equivalent usage. The final reason for greater water age is that the demands in the Unit 17 area are approximately 42% higher, resulting in significantly less system flushing per connection.

None of the locations used for water quality testing fall within these areas, and consequently, higher TTHM formation found in testing results is likely not due specifically to water age. From this analysis it appears that the formation of TTHMs is due to the current practice of oxidizing organics with high dosages of chlorine. Once a different oxidant is utilized, it is expected that TTHM formation will no longer be an issue.

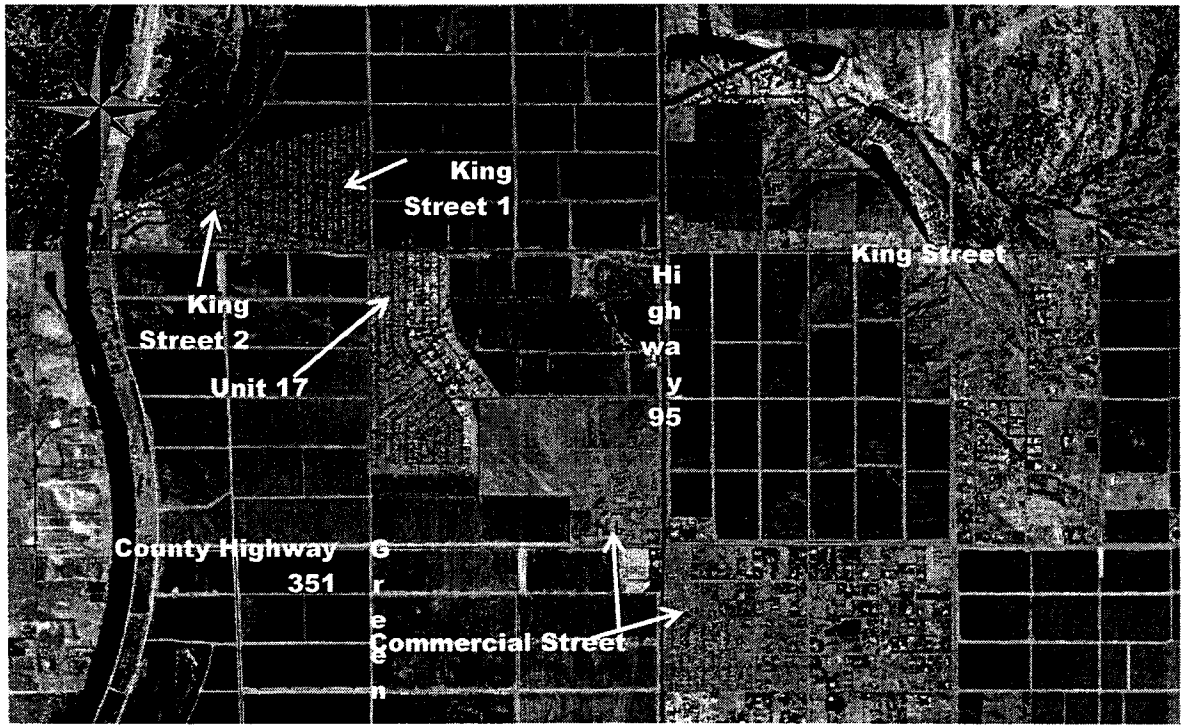
#### 4.6 Criticality Analysis

A criticality analysis was performed using Watergems by Bentley Systems Inc. The criticality analysis was used to identify areas where inoperable valves and/or lack of valves leaves large segments of the system exposed in the event of a water main break, or other service shut down. Due to the age and condition of the system, the areas of primary concern are within the older parts of the system within the Unit 17 and Commercial Street systems. In these areas, few of the valves installed are operable. It is recommended that replacement of these valves be initiated to minimize the number of services impacted by shutdowns in the system.

## 5.0 2-5 YEAR CAPITAL IMPROVEMENTS PLAN

### 5.1 Project Descriptions

The main goal of the years 2-5 capital improvement plan (CIP) will be to replace the aging infrastructure within the system. This will consist primarily of replacing all of 4-inch and 6-inch water mains within the King Street and Commercial Street (Homes only) systems. The 4-inch lines within the Unit 17 portion of the system will also require replacement. A phasing Plan will be developed to address repairs of the system identified with the highest criticality. Due to the size of the King Street area, it will be divided into two projects. Because of the age of the system, and the large number of services affected, the King Street areas will be completed first, followed by the Commercial Street area, and finally the Unit 17 area. The areas requiring watermain replacement are presented below in Figure 5.



**Figure 5 - Watermains Replacement Areas**

In the watermain replacement areas, the majority of the existing valves have become inoperable. It is necessary to have the ability to isolate areas of the system in order to repair line breaks, and perform other system maintenance as necessary. Current inoperability of the valves results in an excessive number of services affected by line breaks and maintenance activities. Therefore, it is recommended that a valve replacement program be initiated.

Additionally, existing water quality issues in the system necessitate that the water treatment systems and/or processes be modified/upgraded to neutralize water quality concerns.



**5.2 Schedule**

The treatment system modifications/upgrades have been scheduled and budgeted for in the 2011 fiscal year. It is recommended that the valve replacement program be started as soon as possible. Scheduling of the water mains replacement will take place as budget allows. The total projected cost for the CIP improvements is approximately \$1.2 Million. A detailed schedule of the projected replacements and a breakdown of the projected budgets is included in Appendix C. A summary of the CIP plan is provided below in Table 7

Table 7 - 2-5 Year Capital Improvement Plan Summary		
Project	Budget	Projected Years
King Street Watermain Replacement 2	\$371,373	2016,2018
Commercial Street Watermain Replacement	\$581,418	2015,2017,2019

## 6.0 CONCLUSIONS

The analysis performed herein provided an audit of the existing system infrastructure. The audit revealed that the existing WDCs currently offer a reasonable level of service, though some modification to the treatment process is required to rectify water quality concerns. It also revealed that much of the system piping is in poor condition due to system age. The condition of the piping is resulting in frequent line breaks. Additionally, valve failures throughout the system result in wide impact to customers when line breaks occur.

A 2-5 Year CIP plan was developed that includes the updating of the treatment processes to bring water quality into compliance. The plan also provides for strategic replacement of valves throughout the system in order to provide better system isolation in the event of main breaks. Finally, the plan provides for the replacement of the aging system piping over the next 6 years.

Water modeling was also performed. The water modeling showed that the system is capable of delivering adequate pressures and flows to the system. It also demonstrates that water ages within the system are within a reasonable level. It was determined, therefore, that high TTHM levels within the system are due to another factor.

It was determined that the high TTHM levels within the system are likely due to the direct oxidation of high levels of TOC within the source water. This is confirmed by the high levels of chlorine dosage required in order to maintain adequate residual in the system. Alternative oxidants are currently under evaluation in conjunction with a separate corrosion control study already underway by Global Water Resources. Once an alternative oxidant is implemented into the treatment process, and chlorination is moved to after the treatment process, it is expected that TTHM levels within the system will drop dramatically.

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## Appendix A - Steady-State Model Results

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## Appendix B - Extended Period Simulation Model Results

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## Appendix C - Detailed Years 2-5 CIP Plan Calculations

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**LEGEND**

EXISTING 4" ASBESTOS CEMENT (AC) PIPE  
MAIN ABANDON IN-PLACE

EXISTING WATER VALVE

NEW 1" OR 2" SERVICE LATERAL

NEW 6" PVC WATER MAIN

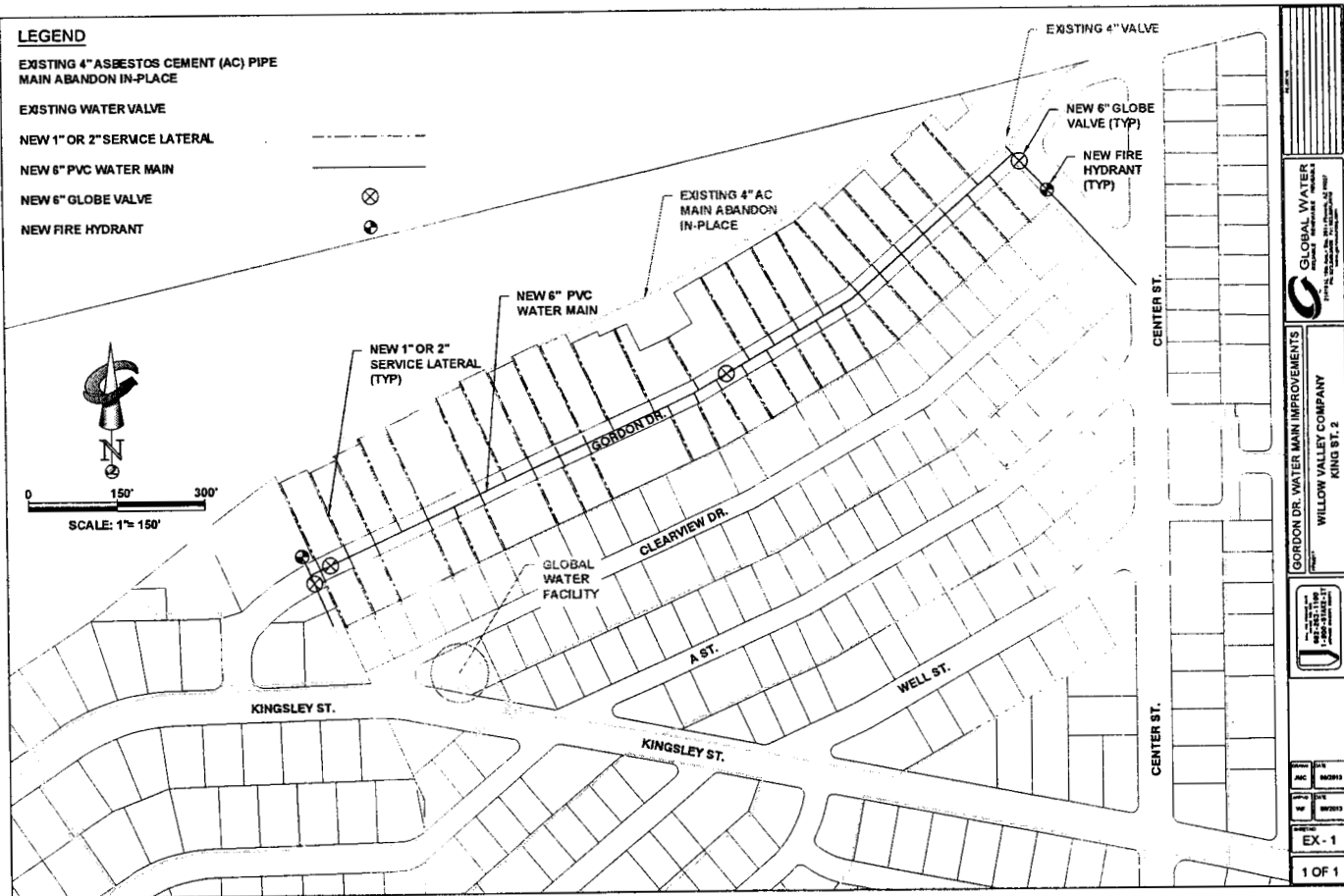
NEW 6" GLOBE VALVE

NEW FIRE HYDRANT



0 150' 300'

SCALE: 1"= 150'



GLOBAL WATER WILLOW VALLEY COMPANY KING ST. 2	
GORDON DR. WATER MAIN IMPROVEMENTS WILLOW VALLEY COMPANY KING ST. 2	
DATE: 08/2013	SCALE: 1"= 150'
PROJECT: GORDON DR. WATER MAIN IMPROVEMENTS	DATE: 08/2013
PROJECT: GORDON DR. WATER MAIN IMPROVEMENTS	DATE: 08/2013
EX - 1	
1 OF 1	

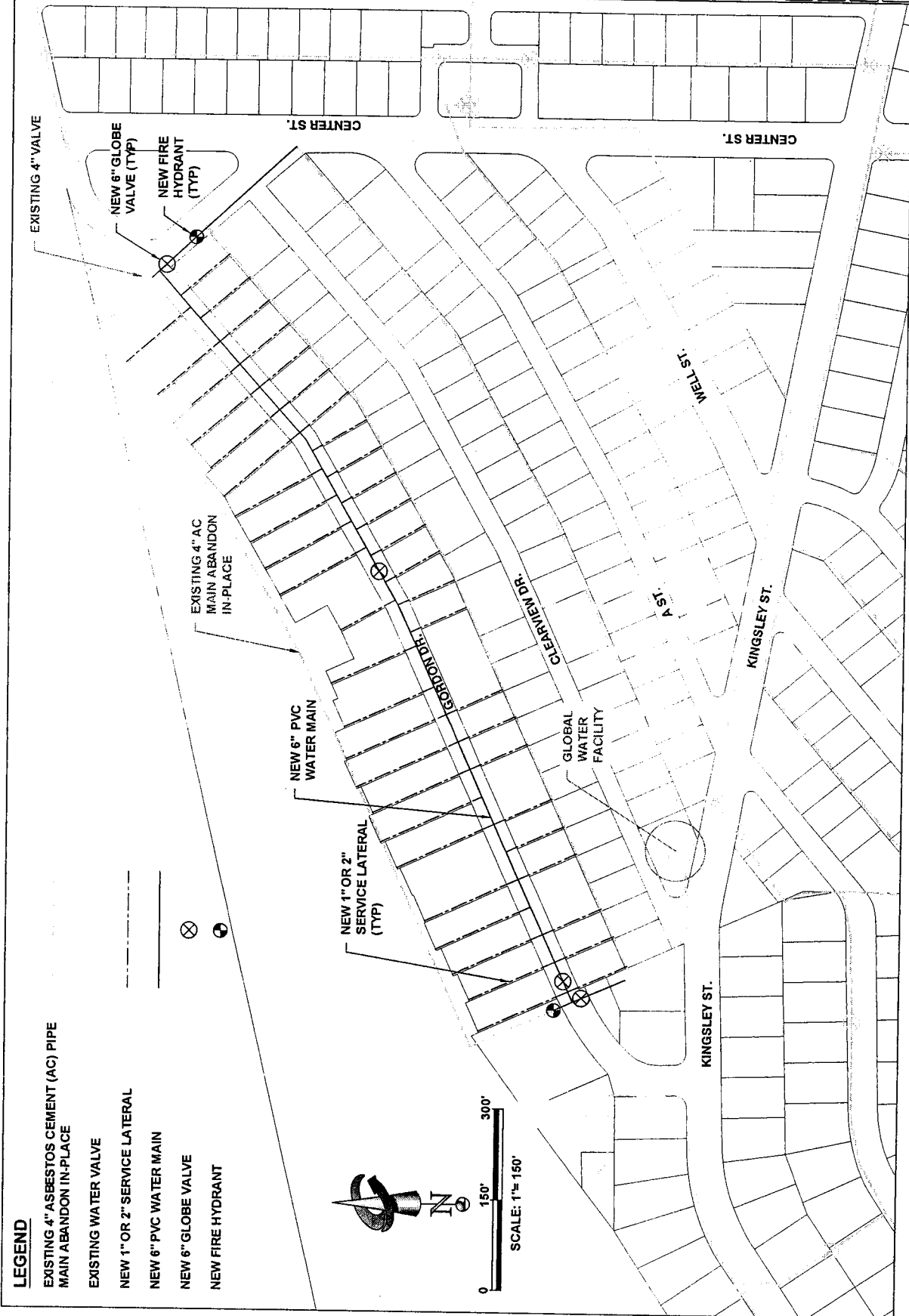
DATE	NO. OF SHEETS
JAC	02/2013
DATE	NO. OF SHEETS
WF	02/2013

**GLOBAL WATER**  
 21418 N. 198th Ave., Ste. 201, Edmonds, WA 98149  
 PH: 206-861-1100 FAX: 206-861-1101  
 WWW.GLOBALWATER.COM

**GORDON DR. WATER MAIN IMPROVEMENTS**  
 KING ST. 2  
 WILLOW VALLEY COMPANY

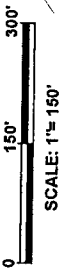
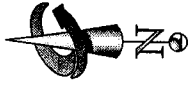
PROJECT NO. 1000000000  
 1-800-874-1100  
 206-861-1100  
 WWW.GLOBALWATER.COM

EX - 1  
 1 OF 1



**LEGEND**

- EXISTING 4" ASBESTOS CEMENT (AC) PIPE MAIN ABANDON IN-PLACE
- EXISTING WATER VALVE
- NEW 1" OR 2" SERVICE LATERAL
- NEW 6" PVC WATER MAIN
- NEW 6" GLOBE VALVE
- NEW FIRE HYDRANT



SCALE: 1" = 150'

Water System Name and PWS ID No.  
 SIB PLANT TABLE II (Page 2 of 2, Summary)

**Information to be included with SIB-Eligible Completed Project Filings**

Project No.	PWS ID No.	Project Description	Estimated Cost (from TABLE I)	Actual Cost	Detailed explanation of why actual costs have exceeded estimated costs by more than 10% for the project.
		<b>Total Cost</b>			



Water System Name and PWS ID No.  
SIB PLANT TABLE I

Information to be included with SIB-Eligible Project Notification

Project No.	NARUC Acct No. (SIB-eligible plant)	Replacement Plant Description (new plant) (SIB-eligible plant)				Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility  2. Provide narrative explaining why this segment of plant is a priority.  3. Provide narrative explaining how replacing this plant will benefit existing customers.  4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers.  5. Provide reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance and repair/replacement program.
		Pipe length/Quantity	Diameter/Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
1	NA	NA	NA	NA	NA	NA	NA	NA	NA	
<b>Estimated Total Cost</b>										

Water System Name and PWS ID No.

SIB PLANT TABLE I

Information to be included with SIB-Eligible Project Notification

Project No.	NARUC Acct No. (SIB-eligible plant)	Replacement Plant Description (new plant)			Site (location description)	Replacement Plant			Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility
		Pipe length/Quantity	Diameter/Size	Material		Installed Cost/Unit (estimated)	Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	
1	331 T&D Mains	1,626	6	PVC	\$48.00	Gordon Drive	2014	\$78,024	2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provide reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance and repair/replacement program. Install approximately 1,626 LF of 6-inch replacement pipe, replace 47 service connection and add 2 fire hydrants on Gordon St between Center St and Kingsley Street. This project will replace approximately 1,354 LF of 4-inch Asbestos Cement (AC) Pipe water main installed prior to 1970. The existing water main and service connections to be replaced have 8 recorded leaks over the last 4 years. This replacement project is not being constructed to serve new customers. The Project is further described and documented in the Engineering Report -Appendix C and Gordon Drive Improvement Figure.
<b>Estimated Total Cost</b>									\$78,024

Water System Name and PWS ID No.

SIB PLANT TABLE I

Information to be included with SIB-Eligible Project Notification

Project No.	NARUC Acct No. (SIB-eligible plant)	Replacement Plant Description (new plant) (SIB-eligible plant)			Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provide reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance and repair/replacement program.
		Pipe length/Quantity	Diameter/Size	Material		Installed Cost/Unit (estimated)	Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	
1	333 Service	47	1-inch	Copper	\$1,073	Gordon Drive	2014	\$50,443	Install approximately 1,626 LF of 6-inch replacement pipe, replace 47 service connection and add 2 fire hydrants on Gordon St between Center St and Kingsley Street. This project will replace approximately 1,354 LF of 4-inch Asbestos Cement (AC) Pipe water main installed prior to 1970. The existing water main and service connections to be replaced have 8 recorded leaks over the last 4 years. This replacement project is not being constructed to serve new customers. The Project is further described and documented in the Engineering Report -Appendix C and Gordon Drive Improvement Figure.
<b>Estimated Total Cost</b>								\$50,443	

Water System Name and PWS ID No.  
SIB PLANT TABLE I  
Information to be included with SIB-Eligible Project Notification

Project No.	NARUC Acct No. (SIB-eligible plant)	Replacement Plant Description (new plant) (SIB-eligible plant)				Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provide reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance and repair/replacement program.
		Pipe length/Quantity	Diameter/Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
1	NA	NA	NA	NA	NA	NA	NA	NA	NA	
<b>Estimated Total Cost</b>										

Water System Name and PWS ID No.  
SIB PLANT TABLE I

Information to be included with SIB-Eligible Project Notification

Project No.	NARUC Acct No. (SIB-eligible plant)	Replacement Plant Description (new plant) (SIB-eligible plant)				Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provide reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance and repair/replacement program.
		Pipe length/Quantity	Diameter/Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
1	335 Hydrants	2	5-1/4 inch	Cast Iron	\$1,642	Gordon Drive	2014	\$3,284.69	Install approximately 1,626 LF of 6-inch replacement pipe, replace 47 service connection and add 2 fire hydrants on Gordon St between Center St and Kingsley Street. This project will replace approximately 1,354 LF of 4-inch Asbestos Cement (AC) Pipe water main installed prior to 1970. The existing water main and service connections to be replaced have 8 recorded leaks over the last 4 years. This replacement project is not being constructed to serve new customers. The Project is further described and documented in the Engineering Report - Appendix C and Gordon Drive Improvement Figure.	
<b>Estimated Total Cost</b>									\$3,284.69	



BEFORE THE ARIZONA CORPORATION COMMISSION

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COMMISSIONERS

BOB STUMP, Chairman  
GARY PIERCE  
BRENDA BURNS  
BOB BURNS  
SUSAN BITTER SMITH

IN THE MATTER OF THE APPLICATION OF  
VALENCIA WATER COMPANY – TOWN DIVISION  
FOR THE ESTABLISHMENT OF JUST AND  
REASONABLE RATES AND CHARGES FOR UTILITY  
SERVICE DESIGNED TO REALIZE A REASONABLE  
RATE OF RETURN ON THE FAIR VALUE OF ITS  
PROPERTY THROUGHOUT THE STATE OF ARIZONA

DOCKET NO. W-01212A-12-0309

IN THE MATTER OF THE APPLICATION OF  
GLOBAL WATER – PALO VERDE UTILITIES  
COMPANY FOR THE ESTABLISHMENT OF JUST AND  
REASONABLE RATES AND CHARGES FOR UTILITY  
SERVICE DESIGNED TO REALIZE A REASONABLE  
RATE OF RETURN ON THE FAIR VALUE OF ITS  
PROPERTY THROUGHOUT THE STATE OF ARIZONA

DOCKET NO. SW-20445A-12-0310

IN THE MATTER OF THE APPLICATION OF WATER  
UTILITY OF NORTHERN SCOTTSDALE, INC. FOR A  
RATE INCREASE

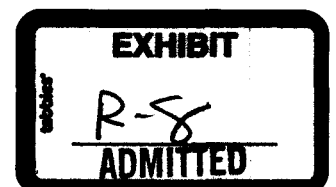
DOCKET NOS. W-03720A-12-0311

IN THE MATTER OF THE APPLICATION OF  
WATER UTILITY OF GREATER TONOPAH FOR  
THE ESTABLISHMENT OF JUST AND REASONABLE  
RATES AND CHARGES FOR UTILITY SERVICE  
DESIGNED TO REALIZE A REASONABLE RATE OF  
RETURN ON THE FAIR VALUE OF ITS PROPERTY  
THROUGHOUT THE STATE OF ARIZONA

DOCKET NO. W-02450A-12-0312

IN THE MATTER OF THE APPLICATION OF  
VALENCIA WATER COMPANY – GREATER  
BUCKEYE DIVISION FOR THE ESTABLISHMENT OF  
JUST AND REASONABLE RATES AND CHARGES FOR  
UTILITY SERVICE DESIGNED TO REALIZE A  
REASONABLE RATE OF RETURN ON THE FAIR  
VALUE OF ITS PROPERTY THROUGHOUT THE  
STATE OF ARIZONA

DOCKET NO. W-02451A-12-0313



1 IN THE MATTER OF THE APPLICATION OF  
2 GLOBAL WATER – SANTA CRUZ WATER COMPANY  
3 FOR THE ESTABLISHMENT OF JUST AND  
4 REASONABLE RATES AND CHARGES FOR UTILITY  
SERVICE DESIGNED TO REALIZE A REASONABLE  
RATE OF RETURN ON THE FAIR VALUE OF ITS  
PROPERTY THROUGHOUT THE STATE OF ARIZONA

DOCKET NO. W-20446A-12-0314

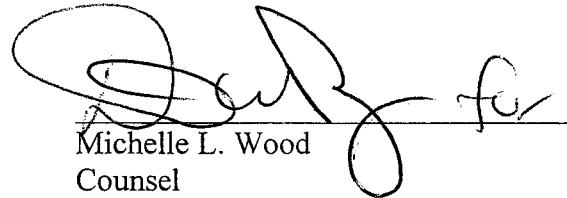
5 IN THE MATTER OF THE APPLICATION OF  
6 WILLOW VALLEY WATER COMPANY FOR THE  
7 ESTABLISHMENT OF JUST AND REASONABLE  
8 RATES AND CHARGES FOR UTILITY SERVICE  
DESIGNED TO REALIZE A REASONABLE RATE OF  
RETURN ON THE FAIR VALUE OF ITS PROPERTY  
THROUGHOUT THE STATE OF ARIZONA

DOCKET NO. W-1732A-12-0315

**NOTICE OF FILING**

9  
10 The Residential Utility Consumer Office (“RUCO”) hereby provides notice of filing the  
11 Responsive Testimony of Robert B. Mease, in the above-referenced matter.

12 RESPECTFULLY SUBMITTED this 13th day of September, 2013.

13  
14   
15 Michelle L. Wood  
16 Counsel

17 AN ORIGINAL AND THIRTEEN  
18 COPIES of the foregoing filed this  
13th day of September, 2013 with:

19 Docket Control  
20 Arizona Corporation Commission  
21 1200 W. Washington  
Phoenix, AZ 85007

22 COPIES of the foregoing hand delivered/  
23 mailed this 13th day of September, 2013 to:

24 Janice Alward  
25 Legal Division  
26 Arizona Corporation Commission  
27 1200 W. Washington  
Phoenix, AZ 85007

1 Steve Olea  
Utilities Division  
2 Arizona Corporation Commission  
1200 W. Washington  
3 Phoenix, AZ 85007

4 Dwight Nodes  
Hearing Division  
5 Arizona Corporation Commission  
1200 W. Washington  
6 Phoenix, AZ 85007\

7  
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Michael Patten  
Roshka, DeWulf & Patten PLC  
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Phoenix, AZ 85004  
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11 Global Water – Palo Verde Utilities  
Company; Water Utility of Northern Scottsdale;  
12 Water Utility of Greater Tonopah, Inc.;  
13 Valencia Water Company – Greater Buckeye  
Division; Global Water – Santa Cruz Water  
14 Company and Willow Valley Water Co., Inc.

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22 Lawrence V. Robertson, Jr.  
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7 Willow Valley Club Association  
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19 Phoenix, AZ 85016

20

21

22 By Cheryl Fraulob  
23 Cheryl Fraulob

24

25

26

27

GLOBAL UTILITIES  
DOCKET NO. W-01212A-12-0309 et al.

RESPONSIVE TESTIMONY  
OF  
ROBERT B. MEASE

ON BEHALF OF  
THE  
RESIDENTIAL UTILITY CONSUMER OFFICE

SEPTEMBER 13, 2013

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## EXECUTIVE SUMMARY

On July 9, 2012, Global Water, LLC (“Global Water” or “Company”) filed general rate applications for Valencia Water Company – Town Division (“VWCT”), Global Water – Palo Verde Utilities Company (“Palo Verde”), Water Utility of Northern Scottsdale (“WUNS”), Water Utility of Greater Tonopah (“WUGT”), Valencia Water Company – Greater Buckeye Division (“VWCGB”), Global Water – Santa Cruz Water Company, (“Santa Cruz”), and Willow Valley Water Company (“Willow Valley”) for the establishment of just and reasonable rates using a test year ending December 31, 2011. WUGT and VWCGB are classified as Class C utilities; WUNS is classified as a Class D utility while the remaining four locations are classified as Class A utilities.

On July 12, 2012 a Motion to Consolidate was filed by the Company and on November 20, 2012, the motion was granted under Docket No. W-01212A-12-0309 ET AL.

In addition to requesting an adjustment in rates the Company was also requesting, among other things, a Distribution System Improvement Charge (DSIC) for its water systems and a Collection System Improvement Charge (CSIC) for its wastewater system.

On August 13, 2013, a Proposed Settlement Agreement (“Settlement Agreement”) was filed and the Settlement Hearing began on September 5, 2013. The DSIC was not resolved in the Settlement Agreement.

On August 27, 2013, a Procedural Order was issued and set the Hearing on the SIB Mechanism for September 19, 2013.

RUCO Chief of Accounting and Rates, Robert B. Mease, recommends that the Arizona Corporation Commission (“ACC” or “Commission”) reject the Company’s request for a DCIS/SIB Mechanism in its Willow Valley Water System.

1 **INTRODUCTION**

2 **Q. Please state your name, position, employer and address.**

3 A. My Name is Robert B. Mease. I am Chief of Accounting and Rates  
4 employed by the Residential Utility Consumer Office ("RUCO") located at  
5 1110 W. Washington, Suite 220, Phoenix, Arizona 85007.

6  
7 **Q. Please state the purpose of your testimony.**

8 A. The purpose of my testimony is to present RUCO's recommendations  
9 regarding the Applicants request for a DSIC and CSIC mechanism. I will  
10 also adopt Mr. William A. Rigsby's testimony as was filed in this docket on  
11 July 8, 2013.

12  
13 **BACKGROUND**

14 **Q. In the Company's original rate application filing did they request a**  
15 **DSIC or a CSIC?**

16 A. Yes. The Company's original application filing requested a DSIC on all of  
17 its water systems except WUNS and a CSIC on its Palo Verde wastewater  
18 system.

19  
20  
21  
22

1 **Q. Did Global, in its original application filing, submit a detailed plan**  
2 **that identified the projects, expected dates, and projected**  
3 **expenditures that could be reviewed in order to determine if a DSIC**  
4 **or CSIC was appropriate?**

5 A. No. There was considerable information provided by the Company in Mr.  
6 Walker's original testimony identifying what would be provided at a later  
7 date, but there were no details included in the Company's rate application.

8  
9 **Q. Did the Company negotiate a Settlement Agreement with Staff, RUCO**  
10 **and other intervening parties?**

11 A. Yes. A Settlement Agreement was reached with the majority of the  
12 intervening parties and the Hearing began on September 5, 2013.

13  
14 **Q. Did RUCO agree with the Proposed Settlement Agreement signed by**  
15 **the parties involved and were they a signatory on the agreement?**

16 A. As explained by Mr. Pat Quinn in his testimony RUCO supports the  
17 Proposed Settlement Agreement in its entirety. The Agreement settled a  
18 wide range of issues with the exception of the DSIC for Willow Valley.  
19 The parties, including RUCO, agreed to litigate this issue, separately.

20  
21 **Q. What is the Company now requesting instead of a DSIC?**

22 A. Since Global's original application filing the Arizona Corporation  
23 Commission ("ACC") issued on June 28, 2013, Decision No. 73938,

1 approving a System Improvement Benefits ("SIB") mechanism as part of  
2 the Settlement Agreement entered into with Arizona Water Company's  
3 ("AWC") Eastern Group. As a result of this settlement Global is now  
4 requesting that their original DSIC proposal be replaced with the SIB  
5 Mechanism as described in Decision No. 73938.

6

7 **Q. Is the Company now requesting a SIB for all of its water systems**  
8 **included in its filing?**

9 A. No. Global Water is now requesting a SIB in the Willow Valley Water  
10 Company system, only.

11

12 **Q. What about their request for a CSIC?**

13 A. The Company is no longer requesting a CSIC for the Palo Verde waste  
14 water system.

15

16 **Q. Before we further discuss Global's request for a SIB, can we discuss**  
17 **Decision No. 73938 and how this decision is related to Global's**  
18 **filing?**

19 A. Yes. On August 5, 2011 AWC filed an application requesting adjustments  
20 to its rates and charges in its Eastern Group water systems.

21

22 On February 20, 2013, the Commission issued Decision no. 73736  
23 granting AWC a rate increase for its Eastern Group systems, however,

1           kept open for further consideration of a "Phase 2" DSIC Recommended  
2           Order to be considered at the June 11 and 12, 2013 Open Meeting.

3  
4           On April 8, 2013, an evidentiary hearing commenced on the merits of a  
5           DSIC and ultimately concluded on April 11, 2013. On April 29, 2013, post-  
6           hearing briefs were filed by all parties including RUCO. RUCO submitted  
7           its brief on April 29, 2013 opposing the implementation of a DSIC or SIB.

8  
9           On June 28, 2013, the Commission approved the SIB mechanism in  
10          Decision No. 73938. On July 17, 2013, RUCO filed an Application for  
11          Rehearing of Decision No. 73938 and specifically identified errors and  
12          inconsistencies with this decision as well as the original Decision No.  
13          73736.

14

15   **Q.    What action did the Commission take on RUCO's Application for**  
16   **Rehearing of Decision No. 73938?**

17   **A.    In the Staff Open Meeting held on August 15, 2013, the Commission**  
18          **agreed to a (1) rehearing of Decision No. 73938, (2) the reopening of**  
19          **Decision No. 73736 for consideration of modifying the decision, and (3)**  
20          **consolidating these matters and directing the Hearing Division to hold**  
21          **proceedings on the consolidated matters and prepare a recommended**  
22          **opinion and order.**

23



1 **Q. Are there other rate case decisions pending that will be affected by**  
2 **the outcome of the rehearing of Decision No. 73938?**

3 A. Yes. A Settlement Agreement has been negotiated in AWC's Northern  
4 Group which includes a SIB mechanism.

5  
6 **Q. Was RUCO a signatory on the Settlement Agreement with AWC**  
7 **Northern Group?**

8 A. No. RUCO was not a signatory on this Settlement Agreement for the  
9 same reasons that they were not a signatory on the AWC Eastern Group  
10 Settlement Agreement.

11  
12 **Q. Can you please explain why RUCO has opposed a SIB mechanism in**  
13 **past rate cases?**

14 A. Yes. While RUCO's opposition to a DSIC, CSIC or a SIB is thoroughly  
15 explained in Mr. Rigsby's testimony, I will provide a brief summary. In  
16 past rate cases RUCO has opposed a DSIC mechanism, and/or a SIB  
17 mechanism, for the following reasons: (1) It allows for the recovery of  
18 routine plant improvements outside of a rate case that would normally be  
19 recovered in a general rate case filing, (2) The SIB is a one-sided  
20 mechanism that works only for the benefit of the company and the  
21 company's shareholders, (3) There has been no Federal or State  
22 mandates that requires recovery of routine plant investments through a  
23 surcharge, (4) Global has not provided proof that they would be unable to

1           ensure safe and reliable water service or achieve cost recovery without  
2           the adoption of a SIB mechanism. In addition, the legal aspects of a SIB  
3           mechanism are of concern to RUCO and are discussed in Mr. Rigsby's  
4           testimony.

5

6           **CURRENT STATUS OF COMPANY'S REQUEST FOR A SIB**

7           **Q. Has the Company filed testimony regarding its request for a SIB**  
8           **Mechanism?**

9           A. Yes. The Company filed its testimony requesting a SIB mechanism for its  
10          Willow Valley Water Co. on August 21, 2013.

11

12          **Q. Did the Staff consider the Company's filing sufficient?**

13          A. No. The Staff requested additional information in order to evaluate the  
14          need for a SIB.

15

16          **Q. Did the Company file with the Commission Staff an Engineering**  
17          **Report and updated schedules for further consideration of a SIB for**  
18          **the Willow Valley System?**

19          A. Yes. The Company submitted a "Revised Willow Valley Water Co. SIB  
20          Engineering Study" dated September 4, 2013. The information submitted  
21          did not conform to the level of detail that was initially approved by the  
22          Commission in the AWC Eastern group SIB request. See Decision No.

1           73938. The SIB mechanism approved in the Eastern Group's case has  
2           been used as a template in AWC Northern case as well as this case.

3

4   **Q. Did the Commission Staff approve Willow Valley's SIB proposal?**

5   A. Yes. See Mr. Jian W. Liu's testimony filed on September 6, 2013, Page 2,  
6           "Staff recommends approval of Willow Valley's Table I of SIB eligible  
7           projects for purposes of SIB approval."

8

9   **Q. Are you saying that within a two day period that the Company filed a  
10          revised Engineering Study, the Staff engineer reviewed the  
11          Engineering Study, and approved the Company's SIB request?**

12   A. Yes, but no analysis was included in the Staffs approval.

13

14   **Q. Does RUCO believe that adequate time was spent on the review  
15          process of the Company's revised filing?**

16   A. RUCO doesn't believe that sufficient time was allowed for Staff, RUCO or  
17          any of the other parties to reach an informed decision on such an  
18          important issue. The whole subject of a DSIC, CSIC and/or SIB is  
19          extremely important and sufficient time should be allocated as the decision  
20          affects rates that individuals have to pay for future service for many years  
21          to come.

22

1 **Q. Did Staff have any additional recommendations related to the filing**  
2 **of the Company's SIB request?**

3 A. Yes. Mr. Liu further recommends "that Willow Valley file its SIB PLANT  
4 TABLE II using the form labeled Attachment A to this testimony."

5  
6 **Q. Do you believe that the requirements have been met for the Staff to**  
7 **have approved the SIB as filed by the Company?**

8 A. No. When reviewing the "template" prepared in the AWC Eastern case  
9 additional schedules were filed that provided far more information to  
10 support the SIB application. For example, a schedule was provided  
11 showing the effects going forward on ratepayers should a SIB be  
12 approved. RUCO believes that the future SIB increases and how it affects  
13 residential ratepayers needs to be identified prior to Commission  
14 approved. Indeed, the Company has not notified ratepayers that they are  
15 requesting the SIB or its potential impact on their rates.

16  
17 **Q. Has RUCO prepared an analysis calculating the expected SIB**  
18 **increase and the effects on residential ratepayers?**

19 A. Yes. RUCO has prepared a schedule and has included the detailed  
20 calculations as Attachment A. When reviewing the five year effect on  
21 residential ratepayers and keeping the number of residential ratepayers  
22 constant the overall rate increase over the five year period is \$106,464 in  
23 additional revenues to the Company (after the efficiency credit). By the

1 end of the five year SIB period, the average residential ratepayer will be  
2 paying an additional \$5.18 per month, equating to a 21.2 percent increase  
3 based on existing residential rates.

4

5 **Q. Was your calculation for the ratepayer affect consistent with**  
6 **Decision No. 73938?**

7 A. Yes. While the Schedules included in the decision were unique for AWC,  
8 they have been approved by the Commission as a template and are being  
9 used in other water company applications when a SIB is being requested.

10

11 **Q. What is the effect on ratepayers resulting from the approved 5**  
12 **percent efficiency credit?**

13 A. Over the five year period the total savings to ratepayers is approximately  
14 \$5,603. The 5 percent efficiency credit is very insignificant compared to  
15 the \$106,464 the Company will be collecting in SIB charges and provides  
16 very little relief to the ratepayer.

17

18 **Q. Do you believe that the 5% efficiency credit that is provided to**  
19 **ratepayers is representative of the true savings to the Company?**  
20 **Wouldn't you expect to see a reduction in Operating and**  
21 **Maintenance ("O&M") expense exceeding the amount of this credit?**

22 A. I would think that a Company investing \$876,233 over a five year period in  
23 old, outdated and leaking infrastructure would expect savings in O&M

1 expenses in excess of \$5,603. The first year efficiency credit as shown on  
2 Attachment A, of \$1,352 is less than one-percent of the Willow Valley  
3 O&M expenses.

4

5 **Q. Did the Company propose a reduction in O&M expenses when**  
6 **submitting its proposal for a SIB?**

7 A. No. The Company proposed no reductions in future O&M expenses when  
8 submitting its proposal.

9

10 **Q. Mr. Mease, can you please summarize RUCO's position on the**  
11 **establishment of SIB Mechanism in this rate case and future rate**  
12 **cases?**

13 A. Yes. RUCO does not agree with the establishment of a SIB in this case or  
14 future rate cases.

15

16 **Q. Does this conclude your testimony?**

17 A. Yes.

**ATTACHMENT A**

**WILLOW VALLEY WATER COMPANY  
COST OF SIB TO RESIDENTIAL RATEPAYERS**

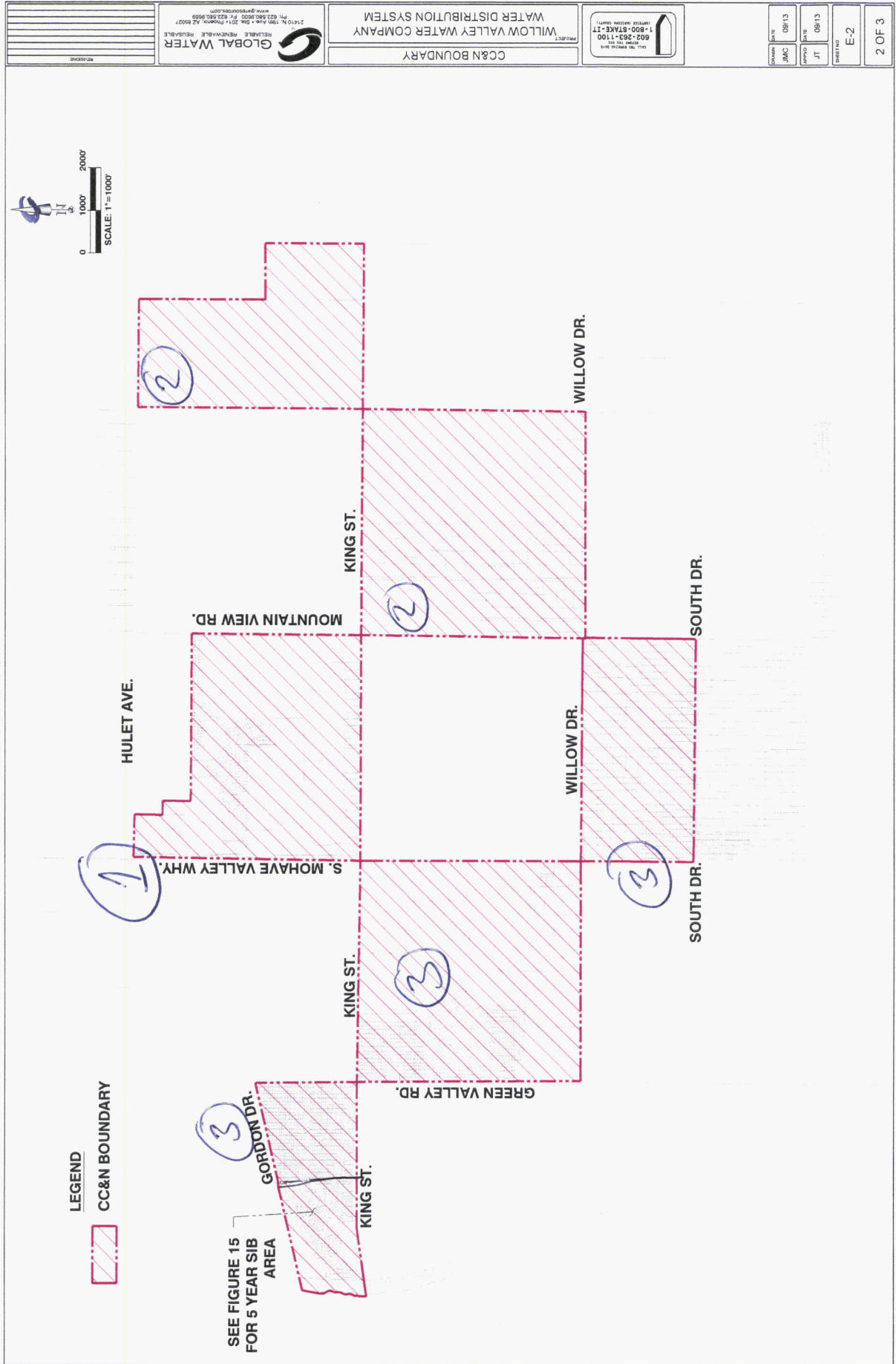
<u>PROJECT LOCATIONS</u>	<u>Year 1 2014</u>	<u>Year 2 2015</u>	<u>Year 3 2016</u>	<u>Year 4 2017</u>	<u>Year 5 2018</u>	<u>Five Year Total Costs</u>
King Street - SIB Additions	\$ 211,491	\$ 171,022	\$ 145,040	\$ 133,701	\$ 214,979	\$ 876,233
Commercial Street - SIB Additions	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 211,491</b>	<b>\$ 171,022</b>	<b>\$ 145,040</b>	<b>\$ 133,701</b>	<b>\$ 214,979</b>	<b>\$ 876,233</b>

**CALCULATION OF OVERALL SIB REVENUE REQUIREMENTS & EFFICIENCY CREDIT**

1							
2	Total Authorized Revenue Requirement - Settlement	\$ 1,106,966	\$ 1,140,175	\$ 1,174,380	\$ 1,209,612	\$ 1,245,900	\$ 5,877,033
3							
4	SIB Revenue CAP %	5%	5%	5%	5%	5%	5%
5							
6	Net SIB Revenue Cap (LN 2 x LN 4)	\$ 55,348	\$ 57,009	\$ 58,719	\$ 60,481	\$ 62,295	\$ 293,852
7							
8	SIB Eligible Plant in Service - Per Above	\$ 211,491	\$ 171,022	\$ 145,040	\$ 133,701	\$ 214,979	\$ 876,233
9							
10	Accumulated Depreciation- 1/2 Year Convention (Ln 24* .5)	\$ 2,929	\$ 2,369	\$ 2,009	\$ 1,852	\$ 2,977	\$ 12,136
11							
12	SIB Rate Base (Ln 8 - Ln 10)	\$ 208,562	\$ 168,653	\$ 143,031	\$ 131,849	\$ 212,002	\$ 864,097
13							
14	Pre-Tax Cost of Capital	10.16%	10.16%	10.16%	10.16%	10.16%	10.16%
15							
16	Required SIB Operating Income (Ln 12 x Ln 14)	\$ 21,191	\$ 17,136	\$ 14,533	\$ 13,396	\$ 21,540	\$ 87,796
17							
18	Gross Revenue Conversion Factor - Per Decision No.	N/A	N/A	N/A	N/A	N/A	N/A
19							
20	Revenue Requirement - Return on SIB (Ln 16 x Ln 18)	\$ 21,191	\$ 17,136	\$ 14,533	\$ 13,396	\$ 21,540	\$ 87,796
21							
22	Applicable Depreciation Rate - Est. Average	2.77%	2.77%	2.77%	2.77%	2.77%	2.77%
23							
24	SIB Depreciation Expense (Ln 8 x Ln 22)	\$ 5,858	\$ 4,737	\$ 4,018	\$ 3,704	\$ 5,955	\$ 24,272
25							
26	Less: Depre Assoc with Applicable Retirements	-	-	-	-	-	-
27							
28	Net Depreciation Expense - SIB Eligible Plant (Ln 24 - Ln 26)	\$ 5,858	\$ 4,737	\$ 4,018	\$ 3,704	\$ 5,955	\$ 24,272
29							
30	SIB Capital Costs - Pre Tax Ret. + Depre. (Ln 20 + Ln 28)	\$ 27,049	\$ 21,873	\$ 18,550	\$ 17,100	\$ 27,495	\$ 112,067
31							
32	Under or Over recovery Form Previous Period	-	-	-	-	-	-
33							
34	Overall SIB Revenue Requirement Lessor of Net SIB Rev						
35	Cap or SIB Capital Costs	\$ 27,049	\$ 21,873	\$ 18,550	\$ 17,100	\$ 27,495	\$ 112,067
36							
37	SIB Efficiency Credit %	-5.00%	-5.00%	-5.00%	-5.00%	-5.00%	-5.00%
38							
39	Overall SIB Efficiency Credit	\$ (1,352)	\$ (1,094)	\$ (928)	\$ (855)	\$ (1,375)	\$ (5,603)
40							
41	<b>NET SIB REVENUE INCLUDING EFFICIENCY CR</b>	<b>\$ 25,697</b>	<b>\$ 20,780</b>	<b>\$ 17,623</b>	<b>\$ 16,245</b>	<b>\$ 26,120</b>	<b>\$ 106,464</b>
42							
43	Base Rates Residential Ratepayer	\$ 24.40	\$ 30.57	\$ 37.03	\$ 37.03	\$ 37.03	\$ 24.40
44	Increase to Residential Ratepayers	\$ 1.25	\$ 1.01	\$ 0.86	\$ 0.79	\$ 1.27	\$ 5.18
45							
46	Percentage Increase to Residential Ratepayer	5.12%	3.31%	2.31%	2.13%	3.43%	21.22%
47							
48	<u>Pre-Tax Cost of Capital</u>						
49	Weighted Cost of Equity	4.00%					
50	Revenue Conversion Factor	1.6651					
51	Pre-Tax Weighted Cost of Equity	6.66%					
52	Weighted Cost of Debt	3.50%					
53	Pre-Tax Cost of Capital	10.16%					



FIGURE 14





# The Distribution System Improvement Charge: A Rip-Off For Consumers

Fact Sheet • October 2011

Investor owned water utility companies are pushing unreasonable rate schemes on consumers across the country. These schemes involve special surcharges that automatically increase water bills without a full public review, so that private utility companies can more quickly make a return on certain water distribution projects and ensure their long-term profitability.<sup>1</sup> The companies are essentially trying to boost their earnings and shed regulatory oversight that protects consumers.

Although the scheme goes by different names in different states, it is most commonly referred to as a Distribution System Improvement Charge (DSIC).<sup>2</sup> This innocuous-sounding name obscures the real objective: to boost and ensure corporate profits by shifting risks to the public and bypassing standard consumer protections. (Community activists fighting this scheme have noted that a more fitting title would be a Reduction in Public Oversight For Financing, or RIPOFF.) In the states where it is allowed, it is a boon for the private water industry that comes at the expense of the public.

## Avoided Public Oversight

The DSIC scheme allows investor owned water utilities to increase customer bills without the standard regulatory process that protects the public from the exploitative prices and unfair practices possible under private monopolies.<sup>3</sup> In most states, a public utility commission oversees the finances and approves the rates of investor owned water utilities to prevent the companies from abusing their monopoly power.<sup>4</sup> By avoiding full regulatory scrutiny, surcharge schemes can lead to unwarranted profits,<sup>5</sup> as well as skewed investment decisions. They incentivize certain projects at the expense of other, possibly more prudent, ones,<sup>6</sup> and can compel companies to overinvest to maximize their financial benefit from the scheme.<sup>7</sup>

David Sade, West Virginia's deputy consumer advocate, said that allowing such a scheme would "remove one of the most important counterbalances to the inclinations of monopoly utilities to overbuild, or 'gold plate' their systems." Taking time to conduct a full financial review, Sade explained, "serves to encourage monopoly utilities to engage in prudent investment decisions and operate more

efficiently."<sup>8</sup> DSIC schemes bypass this necessary public oversight.

## Automatic Rate Increases

With the DSIC scheme, investor owned water utilities can automatically increase customer bills up to a certain percentage — from 3 percent to 10 percent, depending on the state<sup>9</sup> — after repairing or replacing water pipelines. Then, when private water utilities want a larger increase, they follow the normal procedures and file a rate case.<sup>10</sup> The largest investor owned water utilities typically file for rate increase every two years,<sup>11</sup> whether or not they have imposed surcharges.<sup>12</sup> When they do, they roll any existing surcharges into their base rates and reset the surcharge to zero.<sup>13</sup> This obscures the long-term consumer cost of the mechanism. Over time, the rolled-in surcharges can add up to a considerable premium on customer bills.

For example, infrastructure surcharges added \$80 million to Aqua Pennsylvania's total authorized revenues between 1997 — when the scheme went into effect — and mid-2010 (see graph). The company received, on average, only

***"[I]t is inappropriate to tilt the regulatory balance against consumers and shift business risk away from water companies simply for the purpose of creating an incentive for these companies to fulfill their basic obligation to provide safe and adequate water service."***

— from the National Association of State Utility Consumer Advocates' resolution against automatic infrastructure surcharges<sup>20</sup>

**EXHIBIT**

**R-10  
ADMITTED**

about 3 percent of its actual revenue from current surcharges in any given year. However, because the surcharges were rolled into base rates every two years, the cumulative effect of these surcharges is significant. Surcharges accounted for about 36 percent of the total increase in the company's authorized revenues from 1997 to 2010. As of mid-2010, about one fifth of its annual operating revenue could be traced back to their surcharge scheme.<sup>14</sup> This scheme worked to ensure the company's long-term profitability at the expenses of consumers.

### Inflated Water Bills

The DSIC scheme can overcharge consumers. The surcharge is based on a limited view of utility finances. It increases customer bills to cover the cost and corporate profits associated with certain projects without accounting for and offsetting any decreases in operating expenses that result from those projects. Rehabilitating water pipelines, for example, reduces main breaks, water loss and related costs.<sup>15</sup>

Surcharge schemes inflate a company's allowed return on equity — its profit — by reducing regulatory lag,<sup>16</sup> which is the time between when a corporation makes an investment and when it can start making a return on that investment. Regulators set a utility's authorized return on equity to compensate it for the risks associated with lag, but when surcharges cut lag time, there is not a corresponding decrease in the allowed return.<sup>17</sup> That means consumers continue to pay for business risks that the surcharge removes.

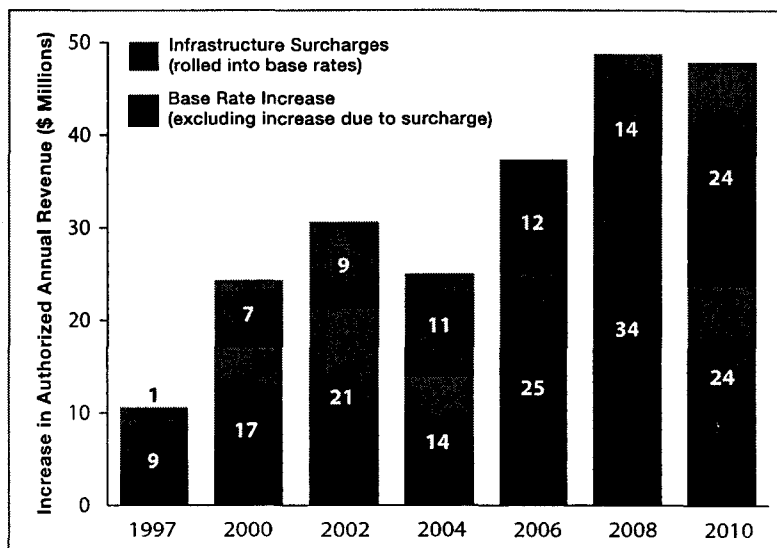
Calculations of infrastructure surcharges also typically overestimate the cost of financing projects at the expense of consumers. These calculations are based on the cost of long-term debt, even though water utilities tend to use cheaper short-term debt to pay for the types of projects funded by the surcharge.<sup>18</sup>

### Unnecessary Consumer Burden

The DSIC scheme puts an unjustified financial burden on consumers. Water corporations claim that it is necessary for improving water systems, but as New Jersey's Division of Rate Counsel said, "This argument for an incentive is disingenuous because a utility should not need an extra incentive to fulfill its obligations to provide safe, adequate, and proper service to New Jersey ratepayers."<sup>19</sup>

In other words, the DSIC is an unnecessary special corporate perk that rewards investor owned water utilities for making improvements that they should be making anyway. If the corporations cannot meet their obligations to provide safe and sound water service using standard rate practices, then they should get out of the water business.

## Aqua Pennsylvania's Rate Increase History: How Infrastructure Surcharges Have Inflated Rates



Since the implementation of the infrastructure surcharge in 1997 through mid-2010, Aqua Pennsylvania's authorized revenue has increased by a total of \$224 million, \$80 million of which is from infrastructure surcharges.<sup>14</sup>

### The Private Water Industry's "Major Coup"

An industry analyst has called legislative action allowing a DSIC scheme a "major coup,"<sup>21</sup> and another has referred to infrastructure surcharges as "the holy grail" for investor owned water utilities.<sup>22</sup>

Nick DeBenedictis, CEO of Aqua America, attributed his company's stable earnings to infrastructure surcharges,<sup>23</sup> and in 2011, the company focused 44 percent of its planned capital investments on projects covered by them.<sup>24</sup> American Water, another investor owned water utility, sees the surcharge mechanism as part of its strategy to "ensure" long-term profitability.<sup>25</sup> The company expects to eventually recover one-fifth of its capital investments through such schemes. Reducing regulatory lag "boosts the timeliness of earnings," CEO Jeff Sterba explained to Global Water Intelligence. "That's why we're focused on the development of a DSIC-like distribution recovery mechanism in New Jersey."<sup>26</sup>

To date, eight states — Connecticut, Delaware, Illinois, Indiana, Missouri, New York, Ohio and Pennsylvania — permit the use of infrastructure surcharges, and two states — California and New Hampshire — have pilot programs. The industry is aggressively pushing regulators and legislators in other states, particularly New Jersey, to follow suit.

### Stop the Rip-Off

State legislators and regulators should prevent this consumer rip-off. Certainly we must invest in our water distribution systems, but infrastructure surcharges are a false solution

to our infrastructure needs. Infrastructure surcharges are merely moneymaking schemes for private water companies and their Wall Street investors without any consumer benefit. They are clearly not in the public interest. Everyone depends on safe and high-quality water, and it is essential that this shared public resource be regulated for the public good rather than private gain.

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## Origins: "The Nick DeBenedictis Bill"

Pennsylvania was the first state in the country to allow water infrastructure surcharges. In the mid-nineties, during the final hour of a state legislative session, Pennsylvania lawmakers passed a law — tagged onto a piece of legislation that restricted inmate phone calls — that authorized a Distribution System Improvement Charge. The measure was dubbed "the Nick DeBenedictis bill" after the head of the company now called Aqua America. DeBenedictis' company, along with the Pennsylvanian arm of American Water, devised the scheme, and several state politicians credited his lobbying efforts and campaign contributions with the bill's passage. The scheme went into effect at the beginning of 1997.<sup>27</sup>

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BEFORE THE ARIZONA CORPORATION COMMISSION



BOB STUMP  
Chairman  
GARY PIERCE  
Commissioner  
BRENDA BURNS  
Commissioner  
BOB BURNS  
Commissioner  
SUSAN BITTER SMITH  
Commissioner

IN THE MATTER OF THE APPLICATION OF )  
VALENCIA WATER COMPANY - TOWN )  
DIVISION FOR THE ESTABLISHMENT OF )  
JUST AND REASONABLE RATES AND )  
CHARGES FOR UTILITY SERVICE DESIGNED )  
TO REALIZE A REASONABLE RATE OF )  
RETURN ON THE FAIR VALUE OF ITS )  
PROPERTY THROUGHOUT THE STATE OF )  
ARIZONA )

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GLOBAL WATER-PALO VERDE UTILITIES )  
COMPANY FOR THE ESTABLISHMENT OF )  
JUST AND REASONABLE RATES AND )  
CHARGES FOR UTILITY SERVICE )  
DESIGNED TO REALIZE A REASONABLE )  
RATE OF RETURN ON THE FAIR VALUE OF )  
ITS PROPERTY THROUGHOUT THE )  
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SCOTTSDALE FOR APPROVAL OF A RATE )  
INCREASE )

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IN THE MATTER OF THE APPLICATION OF )  
WATER UTILITY OF GREATER TONOPAH, )  
INC. FOR THE ESTABLISHMENT OF JUST )  
AND REASONABLE RATES AND CHARGES )  
FOR UTILITY SERVICE DESIGNED TO )  
REALIZE A REASONABLE RATE OF )  
RETURN ON THE FAIR VALUE OF ITS )  
PROPERTY THROUGHOUT THE STATE OF )  
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DOCKET NO. SW-20445A- 12-0312

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BUCKEYE DIVISION FOR THE ESTABLISH- )  
MENT OF JUST AND REASONABLE RATES )  
AND CHARGES FOR UTILITY SERVICE )  
DESIGNED TO REALIZE A REASONABLE )  
RATE OF RETURN ON THE FAIR VALUE OF )  
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DOCKET NO. SW-20445A- 12-0313

IN THE MATTER OF THE APPLICATION OF )  
GLOBAL WATER-SANTA CRUZ WATER )  
COMPANY FOR THE ESTABLISHMENT OF )  
JUST AND REASONABLE RATES AND )  
CHARGES FOR UTILITY SERVICE )  
DESIGNED TO REALIZE A REASONABLE )  
RATE OF RETURN ON THE FAIR VALUE OF )  
ITS PROPERTY THROUGHOUT THE )  
STATE OF ARIZONA )

DOCKET NO. SW-20445A- 12-0314

IN THE MATTER OF THE APPLICATION OF )  
WILLOW VALLEY WATER CO., INC. FOR )  
THE ESTABLISHMENT OF JUST AND )  
REASONABLE RATES AND CHARGES FOR )  
UTILITY SERVICE DESIGNED TO REALIZE )  
A REASONABLE RATE OF RETURN ON THE )  
FAIR VALUE OF ITS PROPERTY )  
THROUGHOUT THE STATE OF ARIZONA )

DOCKET NO. SW-20445A- 12-0315

DIRECT  
TESTIMONY  
OF  
GERALD BECKER  
EXECUTIVE CONSULTANT  
UTILITIES DIVISION  
ARIZONA CORPORATION COMMISSION

JULY 8, 2013

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Operating Income Adjustment #4 – Expense Normalizations.....	GWB-15
Operating Income Adjustment #5 – Depreciation Expense.....	GWB-16
Operating Income Adjustment #6 – Income Tax Expense.....	GWB-17
Operating Income Adjustment #7 – Property Tax & GRCF Component.....	GWB-18

***Global Water - Palo Verde Utilities Company***

Revenue Requirement.....	GWB-1
Gross Revenue Conversion Factor.....	GWB-2
Rate Base – Original Cost.....	GWB-3
Summary of Original Cost Rate Base Adjustments.....	GWB-4
Rate Base Adjustment #1 – Post Test Year Plant.....	GWB-5
Not Used .....	GWB-6 through 9
Operating Income Statement - Test Year and Staff-Recommended.....	GWB-10
Summary of Operating Income Adjustments - Test Year.....	GWB-11
Operating Income Adjustment #1 – Bad Debt Expense.....	GWB-12
Operating Income Adjustment #2 – Rate Case Expense.....	GWB-13



Operating Income Adjustment #3 – Expense Normalizations.....	GWB-14
Not Used .....	GWB-15
Operating Income Adjustment #4 – Depreciation Expense.....	GWB-16
Operating Income Adjustment #5 – Income Tax Expense.....	GWB-17
Operating Income Adjustment #6 – Property Tax & GRCF Component.....	GWB-18

***Global Water — Northern Scottsdale***

Revenue Requirement.....	GWB-1
Gross Revenue Conversion Factor.....	GWB-2
Rate Base – Original Cost.....	GWB-3
Summary of Original Cost Rate Base Adjustments.....	GWB-4
Not Used .....	GWB-5 through 9
Operating Income Statement - Test Year and Staff-Recommended.....	GWB-10
Summary of Operating Income Adjustments - Test Year.....	GWB-11
Operating Income Adjustment #1 – Bad Debt Expense.....	GWB-12
Operating Income Adjustment #2 – Rate Case Expense.....	GWB-13
Not Used .....	GWB-14 & GWB-15
Operating Income Adjustment #4 – Depreciation Expense.....	GWB-16
Operating Income Adjustment #5 – Income Tax Expense.....	GWB-17
Operating Income Adjustment #6 – Property Tax & GRCF Component.....	GWB-18

***Water Utility of Greater Tonopah***

Revenue Requirement.....	GWB-1
Gross Revenue Conversion Factor.....	GWB-2
Rate Base – Original Cost.....	GWB-3
Summary of Original Cost Rate Base Adjustments.....	GWB-4
Not Used .....	GWB-5 through 9
Operating Income Statement - Test Year and Staff-Recommended.....	GWB-10
Summary of Operating Income Adjustments - Test Year.....	GWB-11
Operating Income Adjustment #1 – Excess Water Loss .....	GWB-12
Operating Income Adjustment #2 – Bad Debt Expense.....	GWB-13

Operating Income Adjustment #3 – Rate Case Expense.....	GWB-14
Not Used .....	GWB-15
Operating Income Adjustment #4 – Depreciation Expense.....	GWB-16
Operating Income Adjustment #5 – Income Tax Expense.....	GWB-17
Operating Income Adjustment #6 – Property Tax & GRCF Component.....	GWB-18

***Valencia Water Company Greater Buckeye Division***

Revenue Requirement.....	GWB-1
Gross Revenue Conversion Factor.....	GWB-2
Rate Base – Original Cost.....	GWB-3
Summary of Original Cost Rate Base Adjustments.....	GWB-4
Not Used .....	GWB-5 through 9
Operating Income Statement - Test Year and Staff-Recommended.....	GWB-10
Summary of Operating Income Adjustments - Test Year.....	GWB-11
Operating Income Adjustment #1 – Excess Water Loss .....	GWB-12
Operating Income Adjustment #2 – Bad Debt Expense.....	GWB-13
Operating Income Adjustment #3 – Rate Case Expense.....	GWB-14
Not Used .....	GWB-15
Operating Income Adjustment #4 – Depreciation Expense.....	GWB-16
Operating Income Adjustment #5 – Income Tax Expense.....	GWB-17
Operating Income Adjustment #6 – Property Tax & GRCF Component.....	GWB-18

***Global Water-Santa Cruz Water Company***

Revenue Requirement.....	GWB-1
Gross Revenue Conversion Factor.....	GWB-2
Rate Base – Original Cost.....	GWB-3
Summary of Original Cost Rate Base Adjustments.....	GWB-4
Not Used .....	GWB-5 through 9
Operating Income Statement - Test Year and Staff-Recommended.....	GWB-10
Summary of Operating Income Adjustments - Test Year.....	GWB-11
Operating Income Adjustment #1 – Excess Water Loss .....	GWB-12

Operating Income Adjustment #2 – Bad Debt Expense.....	GWB-13
Operating Income Adjustment #3 – Rate Case Expense.....	GWB-14
Operating Income Adjustment #4 – Expense Normalizations.....	GWB-15
Operating Income Adjustment #5 – Depreciation Expense.....	GWB-16
Operating Income Adjustment #6 – Income Tax Expense.....	GWB-17
Operating Income Adjustment #7 – Property Tax & GRCF Component.....	GWB-18

***Willow Valley Water Co., Inc.***

Revenue Requirement.....	GWB-1
Gross Revenue Conversion Factor.....	GWB-2
Rate Base – Original Cost.....	GWB-3
Summary of Original Cost Rate Base Adjustments.....	GWB-4
Not Used .....	GWB-5 through 9
Operating Income Statement - Test Year and Staff-Recommended.....	GWB-10
Summary of Operating Income Adjustments - Test Year.....	GWB-11
Operating Income Adjustment #1 – Excess Water Loss .....	GWB-12
Operating Income Adjustment #2 – Bad Debt Expense.....	GWB-13
Operating Income Adjustment #3 – Rate Case Expense.....	GWB-14
Operating Income Adjustment #4 – Expense Normalizations.....	GWB-15A
Operating Income Adjustment #5 – Water Testing .....	GWB-15B
Operating Income Adjustment #6 – Depreciation Expense.....	GWB-16
Operating Income Adjustment #7 – Income Tax Expense.....	GWB-17
Operating Income Adjustment #8– Property Tax & GRCF Component.....	GWB-18

**EXECUTIVE SUMMARY**  
**VALENCIA WATER COMPANY-TOWN DIVISION, ET AL**  
**DOCKET NO. W-01212A-12-0309, ET AL**

Valencia Water Company – Town Division (“Town Division”), Global Water - Palo Verde Utilities Company (“Palo Verde”), Water Utility of Northern Scottsdale (“Northern Scottsdale”), Water Utility of Greater Tonopah (“Tonopah”), Valencia Water Company – Greater Buckeye Division (“Buckeye”), Global Water – Santa Cruz Water Company (“Santa Cruz”), and Willow Valley Water Company (“Willow Valley”), collectively “Global Companies”, are certificated Arizona public service corporations that provided water and wastewater utility service during the test year of 2011 in various parts of Arizona. The average number of customers per company during the test year was as follows: Town Division – 5,248, Palo Verde - 15,661; Northern Scottsdale – 74; Tonopah - 326, Buckeye - 625; Santa Cruz - 16,209; and, Willow Valley - 1,511.

On July 9, 2012, the Global Companies filed applications for rate increases, and subsequently filed numerous amendments.

Town Division states that it experienced a (\$263,809) test year operating income (loss) resulting in no rate of return. Palo Verde states that it experienced a \$3,066,067 test year operating income resulting in a 5.10 percent rate of return. Northern Scottsdale states that it experienced a \$21,301 test year operating income loss with a rate of return that is not meaningful (due to a negative rate base) and an operating margin of 14.44 percent. Tonopah states that it experienced a \$175,170 test year operating income loss resulting in no rate of return. Buckeye states that it experienced a \$49,158 test year operating income resulting in a 7.74 percent rate of return. Santa Cruz states that it experienced a \$1,675,030 test year operating income resulting in a 4.41 percent rate of return. Willow Valley states that it experienced a \$58,493 test year operating income loss resulting in no rate of return.

***Valencia Water Company - Town Division***

Town Division proposes a revenue increase of \$823,424 or 16.67 percent over the Company proposed test year revenues of \$4,940,316 to \$5,763,740. The Town Division’s proposed revenue increase would produce an operating income of \$238,621 for a 10.27 percent rate of return on an OCRB of \$2,323,475. The Company proposes to use OCRB as its fair value rate base.

For the Town Division, Staff recommends a revenue increase of \$34,665 or 0.70 percent over the test year revenues of \$4,940,316 to \$4,974,981. The Staff recommended revenue increase would produce an operating income of \$147,712 for a 7.50 percent fair value rate of return on a Staff adjusted OCRB of \$1,969,496.

### ***Global Water - Palo Verde Utilities Company***

Palo Verde proposes a revenue increase of \$3,662,560 or 27.94 percent over the Company proposed test year revenues of \$13,107,528 to \$16,770,088. Palo Verde's proposed revenue increase would produce an operating income of \$5,300,691 for a 8.81 percent rate of return on an OCRB of \$60,166,756. The Company proposes to use OCRB as its fair value rate base.

For Palo Verde, Staff recommends a revenue increase of \$149,593 or 1.14 percent over the test year revenues of \$13,107,528 to \$13,257,121. The Staff recommended revenue increase would produce an operating income of \$3,667,843 for a 7.50 percent fair value rate of return on a Staff adjusted OCRB of \$48,904,575.

### ***Water Utility of Northern Scottsdale***

Water Utility of Northern Scottsdale ("WUNS") proposes no change to its revenue of \$147,513. WUNS's proposed revenue would produce an operating margin of 14.44 percent. WUNS' original cost rate base is negative and not meaningful. The Company proposes to use OCRB as its fair value rate base.

For WUNS, Staff also recommends no change to its revenue of \$147,513. Staff's proposed revenue would produce an operating margin of 15.91 percent (based on Staff's adjusted operating income of \$23,472). WUNS's original cost rate base is negative and not meaningful. The Company proposes to use OCRB as its fair value rate base.

### ***Water Utility of Greater Tonopah***

Tonopah proposes a revenue increase of \$677,458 or 326.16 percent over Tonopah's proposed test year revenues of \$207,705 to \$885,163. Tonopah's proposed revenue increase would produce an operating income of \$236,637 for a 10.72 percent rate of return on an OCRB of \$2,206,816. The Company proposes to use OCRB as its fair value rate base.

For Tonopah, Staff recommends a revenue increase of \$199,983 or 96.28 percent over the test year revenues of \$207,705 to \$407,689. The Staff recommended revenue increase would produce an operating income of \$40,786 and no rate of return and a 10 percent operating margin.

### ***Valencia Water Company Greater Buckeye Division***

Buckeye proposes a revenue increase of \$36,423 or 7.88 percent over Buckeye's proposed test year revenues of \$462,043 to \$498,466. Buckeye's proposed revenue increase would produce an operating income of \$70,975 for an 11.18 percent rate of return on an OCRB of \$634,979. The Company proposes to use OCRB as its fair value rate base.

For Buckeye, Staff recommends a revenue increase of \$8,912 or 1.93 percent over the test year revenues of \$462,043 to \$470,955. The Staff recommended revenue increase would produce an operating income of \$47,623 for a 7.50 percent fair value rate of return on a Staff adjusted OCRB of \$634,979.

***Global Water-Santa Cruz Water Company***

Santa Cruz proposes a revenue increase of \$2,730,367 or 26.10 percent over Santa Cruz's proposed test year revenues of \$10,463,460 to \$13,193,827. Santa Cruz's proposed revenue increase would produce an operating income of \$3,342,866 for an 8.79 percent rate of return on an OCRB of \$38,014,243. The Company proposes to use OCRB as its fair value rate base.

For Santa Cruz, Staff recommends a revenue decrease of \$265,199 or 2.53 percent less than the test year revenues of \$10,463,460 to \$10,198,261. The Staff recommended revenue increase would produce an operating income of \$2,071,402 for a 7.50 percent fair value rate of return on a Staff adjusted OCRB of \$27,618,694.

***Willow Valley Water Co., Inc.***

Willow Valley proposes a revenue increase of \$507,537 or 72.23 percent over Willow Valley's proposed test year revenues of \$702,652 to \$1,210,190. Willow Valley's proposed revenue increase would produce an operating income of \$250,024 for a 10.60 percent rate of return on an OCRB of \$2,359,391. The Company proposes to use OCRB as its fair value rate base.

For Willow Valley, Staff recommends a revenue increase of \$404,068 or 57.51 percent over the test year revenues of \$702,652 to \$1,106,720. The Staff recommended revenue increase would produce an operating income of \$170,922 for a 7.50 percent fair value rate of return on a Staff adjusted OCRB of \$2,278,955.

1 **INTRODUCTION**

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

3 A. My name is Gerald Becker. I am an Executive Consultant III employed by the Arizona  
4 Corporation Commission ("Commission") in the Utilities Division ("Staff"). My business  
5 address is 1200 West Washington Street, Phoenix, Arizona 85007.

6  
7 **Q. Briefly describe your responsibilities as an Executive Consultant III.**

8 A. I am responsible for the examination and verification of financial and statistical  
9 information included in utility rate applications. In addition, I develop revenue  
10 requirements, and prepare written reports, testimonies, and schedules that include Staff  
11 recommendations to the Commission. I am also responsible for testifying at formal  
12 hearings on these matters.

13  
14 **Q. Please describe your educational background and professional experience.**

15 A. I received a Masters of Business Administration with an emphasis in Accounting from  
16 Pace University. I am a Certified Public Accountant and a Certified Internal Auditor. I  
17 have participated in multiple rate, financing and other regulatory proceedings. I attended  
18 the National Association of Regulatory Utility Commissioners ("NARUC") Utilities Rate  
19 School.

20  
21 I began employment with the Commission as a utilities regulatory analyst in April 2006.  
22 Prior to joining the Commission, I worked as an Auditor at the Department of Economic  
23 Security and Department of Revenue in the Taxpayer Assistance Section. Prior to those  
24 jobs, I worked for 15 years as an Auditor, Analyst, Financial Analyst, and Budget  
25 Manager at United Illuminating, an investor-owned electric company in New Haven, CT.

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

2 A. I am presenting Staff's analysis and recommendations in the areas of rate base (excluding  
3 Infrastructure Coordination and Financing Agreements ("ICFA") related matters),  
4 operating revenues and expenses, revenue requirement, and rate design in the rate case.  
5 Staff witness Jian Liu is presenting Staff's engineering analysis and recommendations.  
6 Staff witness James Armstrong is presenting Staff's recommendations regarding ICFA-  
7 related matters. Staff witness John Cassidy is presenting Staff's Cost of Capital analysis.

8  
9 **Q. What is the basis of your recommendations?**

10 A. I performed a regulatory audit of the seven Global Companies' applications to determine  
11 whether sufficient, relevant, and reliable evidence exists to support the Global Companies'  
12 requested rate increases. The regulatory audit consisted of examining and testing the  
13 financial information, accounting records, and other supporting documentation and  
14 verifying that the accounting principles applied were in accordance with the Commission-  
15 adopted NARUC Uniform System of Accounts ("USoA"). I also reviewed the Global  
16 Companies' financing applications to determine the propriety and financial impacts of the  
17 proposed transactions.

18  
19 **BACKGROUND**

20 **Q. Please review the background of these applications.**

21 A. The Global Companies are certificated Arizona public service corporations that provide  
22 water or wastewater utility service to customers in various parts of Arizona. On July 9,  
23 2012, the Global Companies filed applications for rate increases, and subsequently filed  
24 numerous amendments. On November 20, 2012, a Procedural Order was issued  
25 consolidating the seven Dockets.

26



1        Valencia Water Company – Town Division’s (“Town Division”) current rates were  
2 authorized in Decision No. 71878, dated September 15, 2010. That Decision authorized a  
3 \$1,473,012 or 48.49% revenue increase that provided a 7.82 percent fair value rate of  
4 return on a \$4,240,018 fair value rate base, which was also the original cost rate base  
5 (“OCRB”).  
6

7        Global Water - Palo Verde Utilities Company’s (“Palo Verde”) current rates were  
8 authorized in Decision No. 71878, dated September 15, 2010. That Decision authorized a  
9 \$6,063,392 or 91.26% revenue increase that provided a 7.80 percent fair value rate of  
10 return on a \$53,314,083 fair value rate base, which was also the OCRB.  
11

12        Water Utility of Northern Scottsdale (“WUNS”) current rates were authorized in Decision  
13 No. 70562, dated October 23, 2008. That Decision authorized a \$35,108 or 40.01%  
14 revenue increase that provided a 13.01 percent operating margin. Rate base was negative  
15 and not useful in setting rates.  
16

17        Water Utility of Greater Tonopah’s (“Tonopah”) current rates were authorized in Decision  
18 No. 71878, dated September 15, 2010. That Decision authorized a \$24,283 or 9.36%  
19 revenue decrease that provided a 7.82 percent operating margin. Rate base was negative  
20 and not useful in setting rates.  
21

22        Valencia Water Company – Greater Buckeye Division’s (“Buckeye”) current rates were  
23 authorized in Decision No. 71878, dated September 15, 2010. That Decision authorized a  
24 \$77,259 or 20.31% revenue increase that provided a 7.68 percent fair value rate of return  
25 on a \$929,057 fair value rate base, which was also the OCRB.  
26

1           Global Water - Santa Cruz Water Company's ("Santa Cruz") current rates were authorized  
2           in Decision No. 71878, dated September 15, 2010. That Decision authorized a \$1,542,323  
3           or 16.39% revenue increase that provided a 7.93 percent fair value rate of return on a  
4           \$39,155,692 fair value rate base, which was also the OCRB.

5  
6           Willow Valley Water Company's ("Willow Valley") current rates were authorized in  
7           Decision No. 71878, dated September 15, 2010. That Decision authorized a \$428,047 or  
8           90.40% revenue increase that provided a 7.60 percent fair value rate of return on a  
9           \$2,251,164 fair value rate base, which was also the original cost rate base.

10  
11           **CONSUMER SERVICE**

12           **Q.    Please provide a brief history of customer complaints received by the Commission**  
13           **regarding Global.**

14           **A.    A search of the Consumer Services database reveals from January 1, 2010 through current:**  
15

16           *Town Division*

17           2013 – 1 Complaint (1 billing)

18                     Opinions: 1 opinion opposed to the rate case.

19  
20           2012 – 4 Complaints (3 billing, 1 other)

21  
22           2011 – 7 Complaints (5 billing, 1 quality of service, 1 disc/termination)

23  
24           2010 – 2 Complaints (1 deposit, 1 disc/termination)  
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26           All complaints have been resolved and closed.

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*Palo Verde*

2013 – 0 Complaints  
19 Opinions opposed to the rate case.

2012 – 1 Complaint (1 billing)

2011 – 2 Complaints (1 billing, 1 disc/termination)

2010 – 1 Complaint (1 deposits)

All complaints have been resolved and closed.

*WUNS*

There are no complaints and opinions received for WUNS.

*Tonopah*

2013 – 1 Complaint (1 billing)  
Opinions: 1 opinion opposed to the rate case.

2012 – 2 Complaints (2 new service)

2011 – 2 Complaints (1 deposits, 1 quality of service)

2010 – 3 Complaints (2 billing, 1 quality of service)

All complaints have been resolved and closed.

*Buckeye*

2013 – 3 Complaints (3 billing)

2012 – 0 Complaints

2011 – 4 Complaints (2 billing, 1 quality of service, 1 disc/termination)

2010 – 3 Complaints (2 billing, 1 deposits)

All complaints have been resolved and closed.

*Santa Cruz*

2013 – 10 Complaints (4 billing, 3 deposits, 1 service, 1 quality of service  
1 disc/termination)

Opinions: 1040 opinions opposed to the rate case.

1 2012 – 18 Complaints (10 billing, 2 deposits, 4 quality of service, 1 rate case item, 1 rates  
2 & tariffs)

3 2011 – 52 Complaints (22 billing, 13 deposits, 1 service, 10 quality of service, 4  
4 disconnect/termination, 1 rate case item, 1 other)

5  
6 2010 – 38 Complaints (19 billing, 7 deposit, 6 quality of service, 5 disc/termination,  
7 1 rates & tariffs)

8  
9 Three complaints remain open (pending investigation). All other complaints have been resolved  
10 and closed.

11  
12 *Willow Valley*

13 2013 – 2 Complaints (1 deposits, 1 rate case items)

14 Opinions: 108 opinions opposed to the rate case.

15  
16 2012 – 3 Complaints (3 billing)

17  
18 2011 – 8 Complaints (3 billing, 5 quality of service)

19  
20 2010 – 24 Complaints (24 billing)

21  
22 All complaints have been resolved and closed.

23  
24 **COMPLIANCE**

25 **Q. Please provide a summary of the compliance status of the Global Companies.**

26 A. A check of the Utilities Division Compliance Database indicates that there are currently  
27 no delinquencies for the Global Companies.

28  
29 **RATE APPLICATION**

30 **Q. What are the primary reasons for the Company's requested permanent rate  
31 increase?**

32 A. The Companies state that they have made significant investments in rate base since the  
33 2008 test year used in their last rate case. The Global Utilities' expenses have also  
34 increased, including some expenses caused by federal government regulations, such as the  
35 Environmental Protection Agency's ("EPA's") Lead and Copper Rule, Disinfectants and  
36 Disinfection By-Products Rules and Groundwater Rule.

**SUMMARY OF PROPOSED REVENUES**

**Q. Please summarize the Company's filing.**

**A. A summary of the Companies' proposed revenues is shown below.**

<b>Company Proposed</b>	<b>Test Year</b>	<b>Global Companies</b>		
	<u>Per Global Companies</u>	<u>Proposed Revenue</u>	<u>\$ Increase</u>	<u>% Increase</u>
Town Division	\$4,940,316	\$5,763,740	\$823,424	16.67%
Palo Verde	\$13,107,528	\$16,770,088	\$3,662,560	27.94%
No. Scottsdale	\$147,513	\$147,513	\$0	0.00%
Tonopah	\$207,705	\$885,163	\$677,458	326.16%
Buckeye	\$462,043	\$498,466	\$36,423	7.88%
Santa Cruz	\$10,463,460	\$13,193,827	\$2,730,367	26.09%
Willow Valley	\$702,652	\$1,210,190	\$507,538	72.23%
<b>Totals</b>	<b>\$30,031,217</b>	<b>\$38,468,987</b>	<b>\$8,437,770</b>	<b>28.10%</b>

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

**A. A summary of the Staff's proposed revenues is shown below.**

<b>Staff Recommended</b>	<b>Test Year</b>	<b>Staff</b>		
	<u>Per Staff</u>	<u>Recommended</u>	<u>\$ Increase</u>	<u>% Increase</u>
Town Division	\$4,940,316	\$4,974,981	\$34,665	0.70%
Palo Verde	\$13,107,528	\$13,257,121	\$149,593	1.14%
No. Scottsdale	\$147,513	\$147,513	\$0	0.00%
Tonopah	\$207,705	\$407,689	\$199,983	96.28%
Buckeye	\$462,043	\$470,955	\$8,912	1.93%
Santa Cruz	\$10,463,460	\$10,198,261	(\$265,199)	-2.53%
Willow Valley	\$702,652	\$1,106,720	\$404,068	57.51%
<b>Totals</b>	<b>\$30,031,217</b>	<b>\$30,563,241</b>	<b>\$532,023</b>	<b>1.77%</b>

The above proposed and recommended revenue increases would apply to the customers of each of the Global Companies as discussed below:

1 ***Valencia Water Company - Town Division***  
2

3 Town Division proposes a revenue increase of \$823,424 or 16.67 percent over the  
4 Company proposed test year revenues of \$4,940,316 to \$5,763,740. The Town Division's  
5 proposed revenue increase would produce an operating income of \$238,621 for a 10.27 percent  
6 rate of return on an OCRB of \$2,323,475. The Company proposes to use OCRB as its fair value  
7 rate base.  
8

9 For the Town Division, Staff recommends a revenue increase of \$34,665 or 0.70 percent  
10 over the test year revenues of \$4,940,316 to \$4,974,981. The Staff recommended revenue  
11 increase would produce an operating income of \$147,712 for a 7.50 percent fair value rate of  
12 return on a Staff adjusted OCRB of \$1,969,496.  
13

14 ***Global Water - Palo Verde Utilities Company***  
15

16 Palo Verde proposes a revenue increase of \$3,662,560 or 27.94 percent over the Company  
17 proposed test year revenues of \$13,107,528 to \$16,770,088. Palo Verde's proposed revenue  
18 increase would produce an operating income of \$5,300,691 for a 8.81 percent rate of return on an  
19 OCRB of \$60,166,756. The Company proposes to use OCRB as its fair value rate base.  
20

21 For Palo Verde, Staff recommends a revenue increase of \$149,593 or 1.14 percent over  
22 the test year revenues of \$13,107,528 to \$13,257,121. The Staff recommended revenue increase  
23 would produce an operating income of \$3,667,843 for a 7.50 percent fair value rate of return on a  
24 Staff adjusted OCRB of \$48,904,575.  
25

26 ***Water Utility of Northern Scottsdale***  
27

28 Water Utility of Northern Scottsdale ("WUNS") proposes no change to its revenue of  
29 \$147,513. WUNS's proposed revenue would produce an operating margin of 14.44 percent.  
30 WUNS' original cost rate base is negative and not meaningful. The Company proposes to use  
31 OCRB as its fair value rate base.  
32

33 For WUNS, Staff also recommends no change to its revenue of \$147,513. Staff's  
34 proposed revenue would produce an operating margin of 15.91 percent (based on Staff's adjusted  
35 operating income of \$23,472). WUNS's original cost rate base is negative and not meaningful.  
36 The Company proposes to use OCRB as its fair value rate base.  
37

38 ***Water Utility of Greater Tonopah***  
39

40 Tonopah proposes a revenue increase of \$677,458 or 326.16 percent over Tonopah's  
41 proposed test year revenues of \$207,705 to \$885,163. Tonopah's proposed revenue increase  
42 would produce an operating income of \$236,637 for a 10.72 percent rate of return on an OCRB of  
43 \$2,206,816. The Company proposes to use OCRB as its fair value rate base.  
44

1 For Tonopah, Staff recommends a revenue increase of \$199,983 or 96.28 percent over the  
2 test year revenues of \$207,705 to \$407,689. The Staff recommended revenue increase would  
3 produce an operating income of \$40,786 and no rate of return and a 10 percent operating margin.  
4

5 ***Valencia Water Company Greater Buckeye Division***  
6

7 Buckeye proposes a revenue increase of \$36,423 or 7.88 percent over Buckeye's proposed  
8 test year revenues of \$462,043 to \$498,466. Buckeye's proposed revenue increase would produce  
9 an operating income of \$70,975 for an 11.18 percent rate of return on an OCRB of \$634,979. The  
10 Company proposes to use OCRB as its fair value rate base.  
11

12 For Buckeye, Staff recommends a revenue increase of \$8,912 or 1.93 percent over the test  
13 year revenues of \$462,043 to \$470,955. The Staff recommended revenue increase would produce  
14 an operating income of \$47,623 for a 7.50 percent fair value rate of return on a Staff adjusted  
15 OCRB of \$634,979.  
16

17 ***Global Water-Santa Cruz Water Company***  
18

19 Santa Cruz proposes a revenue increase of \$2,730,367 or 26.10 percent over Santa Cruz's  
20 proposed test year revenues of \$10,463,460 to \$13,193,827. Santa Cruz's proposed revenue  
21 increase would produce an operating income of \$3,342,866 for an 8.79 percent rate of return on  
22 an OCRB of \$38,014,243. The Company proposes to use OCRB as its fair value rate base.  
23

24 For Santa Cruz, Staff recommends a revenue decrease of \$265,199 or 2.53 percent less  
25 than the test year revenues of \$10,463,460 to \$10,198,261. The Staff recommended revenue  
26 increase would produce an operating income of \$2,071,402 for a 7.50 percent fair value rate of  
27 return on a Staff adjusted OCRB of \$27,618,694.  
28

29 ***Willow Valley Water Co., Inc.***  
30

31 Willow Valley proposes a revenue increase of \$507,537 or 72.23 percent over Willow  
32 Valley's proposed test year revenues of \$702,652 to \$1,210,190. Willow Valley's proposed  
33 revenue increase would produce an operating income of \$250,024 for a 10.60 percent rate of  
34 return on an OCRB of \$2,359,391. The Company proposes to use OCRB as its fair value rate  
35 base.  
36

37 For Willow Valley, Staff recommends a revenue increase of \$404,068 or 57.51 percent  
38 over the test year revenues of \$702,652 to \$1,106,720. The Staff recommended revenue increase  
39 would produce an operating income of \$170,922 for a 7.50 percent fair value rate of return on a  
40 Staff adjusted OCRB of \$2,278,955.  
41

1 **Q. What test year did the Global Companies use in this filing?**

2 A. The Global Companies' rate filing is based on the twelve months ended December 31,  
3 2011 ("test year").

4  
5 **Q. Please summarize the rate base and operating income recommendations and  
6 adjustments addressed in your testimony for the Global Companies.**

7 A. My testimony addresses the following issues:

8 Utility Plant in Service ("UPIS") – These adjustments are based on the recommendations  
9 made by Staff witness Jian Liu regarding post- test year plant made only to the rate bases  
10 of Town Division Palo Verde and Willow Valley, and decrease UPIS by \$353,979,  
11 \$543,461 and \$80,436, respectively, to remove plant not in service.

12  
13 For all systems, except Palo Verde, certain items of plant are reclassified from capstone  
14 account 320, Water Treatment Equipment, to account 320.1, Water Treatment Plant, and  
15 account 320.2, Solution Chemical Feeders, and from capstone account 330, Distribution  
16 Reservoirs and Standpipes, to account 330.1, Storage Tanks and account 330.2, Pressure  
17 Tanks.

18  
19 Contributions in Aid of Construction ("CIAC") – These adjustments are based on the  
20 recommendations made by Staff witness James Armstrong made only to the rate bases of  
21 Palo Verde, Tonopah, and Santa Cruz, and increase CIAC by \$12,714,970, \$3,315,024,  
22 and \$13,059,735, respectively, to recognize as CIAC or hookup fees monies collected  
23 through Infrastructure Coordination and Financing Agreements ("ICFAs").

24  
25 Amortization of CIAC – This adjustment is made only to the rate bases of Palo Verde,  
26 Tonopah, and Santa Cruz and increases Amortization of CIAC by \$1,996,250, 848,646,



1 and \$2,664,186, respectively, to reflect amortization of Staff's recommended CIAC  
2 monies collected through ICFAs.

3  
4 Net CIAC – These adjustments are based on the recommendations made by Staff witness  
5 James Armstrong made only to the rate bases of Palo Verde, Tonopah, and Santa Cruz,  
6 and increases *net* CIAC by \$10,718,720, \$2,466,378, \$10,395,549, respectively, to  
7 recognize as CIAC monies collected ICFAs.

8  
9 Purchased Power – These adjustments are made only to the income statements of Town  
10 Division, Tonopah, Buckeye, Santa Cruz, and Willow Valley and decrease expenses by  
11 \$12,401, \$878, \$504, \$15,748, and \$4,751, respectively, to remove the purchased  
12 pumping power costs related to continuing high water losses.

13  
14 Chemicals – These adjustments are made only to the income statements of Town Division,  
15 Tonopah, Buckeye, Santa Cruz, and Willow Valley and decrease expenses by \$898, \$412,  
16 \$95, \$1,092, and \$6,018, respectively, to remove the chemical expenses related to  
17 continuing high water losses.

18  
19 Bad Debt Expense – This adjustment is made for all the Global Companies and increases  
20 (decreases) operating expenses to reflect normalized levels as follows: \$1,708 for Town  
21 Division; \$49,450 for Palo Verde; \$1,003 for WUNS; (\$2,546) for Tonopah; (\$7,460) for  
22 Buckeye; \$19,319 for Santa Cruz; and (\$4,175) for Willow Valley.

23

1           Rate Case Expense – This adjustment is made for all the Global Companies and decreases  
2           operating expenses to reflect total rate case expense of \$400,000 for this proceeding as  
3           follows: \$17,362 for Town Division; \$59,828 for Palo Verde; \$247 for WUNS; \$1,052  
4           for Tonopah; \$2,037 for Buckeye; \$52,038 for Santa Cruz; and \$4,880 for Willow Valley.

5  
6           Salaries and Wages – These adjustments are made only to the income statements of Town  
7           Division, Palo Verde, Santa Cruz, and Willow Valley and decrease expenses to reflect  
8           normalized levels by \$39,959, \$223,764, \$157,960, and \$15,369, respectively.

9  
10          Materials and Supplies – These adjustments are made only to the income statements of  
11          Town Division, Santa Cruz, and Willow Valley and decrease expenses to reflect  
12          normalized levels by \$22,096, \$21,656, and \$15,453, respectively.

13  
14          Outside Services/Contractual Services - Professional – These adjustments are made only  
15          to the income statements of Town Division, Palo Verde, Santa Cruz, and Willow Valley  
16          and decrease expenses to reflect normalized levels by \$153,707, \$294,223, \$346,035, and  
17          \$17,749, respectively.

18  
19          Miscellaneous Expenses – This adjustment is made only to the income statement of  
20          Willow Valley and decrease expenses to reflect normalized levels by \$9,383.

21  
22          Contractual Services - Testing – This adjustment is made only to the income statement of  
23          Willow Valley and decreases expenses by \$5,285 to reflect test year levels.

24  
25          Depreciation Expense – This adjustment is made for all the Global Companies and  
26          increases (decreases) operating expenses as follows: (\$431,665) for Town Division;

1 (\$476,171) for Palo Verde; (\$4,292) for WUNS; (\$245,777) for Tonopah; \$10,210 for  
2 Buckeye; (\$676,427) for Santa Cruz; and \$84,832 for Willow Valley, respectively, to  
3 reflect Staff's recommended depreciation and amortization expense.

4  
5 Income Tax Expense – This adjustment is made for all the Global Companies and  
6 increases (decreases) operating expenses to reflect the income tax obligation on Staff's  
7 adjusted test year taxable income as follows: \$285,617 for Town Division; \$491,345 for  
8 Palo Verde; \$1,365 for WUNS; \$154,089 for Tonopah; \$6,801 for Buckeye; \$695,818 for  
9 Santa Cruz; and \$21,033 for Willow Valley.

10  
11 **RATE BASE**

12 **Fair Value Rate Base**

13 **Q. Did the Global Companies prepare schedules showing the elements of**  
14 **Reconstruction Cost New Rate Base?**

15 **A.** No, the Global Companies did not. The Global Companies requested that their original  
16 cost rate bases be treated as their fair value rate bases.

1 **Rate Base Summary**

2 **Q. Please summarize Staff's adjustments to the Global Companies' rate bases shown on**  
3 **Schedules GWB-3 and GWB-4 of their respective schedules.**

4 **A. Staff made adjustments to only the rate bases of Palo Verde, Santa Cruz, and Tonopah to**  
5 **reflect Staff's recommended CIAC and amortization of CIAC balances. A summary of**  
6 **the Global Companies' proposed and Staff's recommended rate bases follow:**

7 **Test Year - Rate Base**

	<u>Per Co.</u>	<u>Staff Adjustment</u>	<u>Per Staff</u>
Town Division	\$2,323,475	-\$353,979	\$1,969,496
Palo Verde	\$60,166,756	-\$11,262,181	\$48,904,575
No. Scottsdale	-\$181,978	\$0	-\$181,978
Tonopah	\$2,206,816	-\$2,466,377	-\$259,561
Buckeye	\$634,979	\$0	\$634,979
Santa Cruz	\$38,014,243	-\$10,395,549	\$27,618,694
Willow Valley	\$2,359,391	-\$80,436	\$2,278,955
Totals	\$105,523,682	-\$24,558,523	\$80,965,159

8  
9 **Rate Base Adjustment – Post Test Year Plant (“PTYP”)**

10 **Q. What did the Company proposes for PTYP?**

11 **A. The Company proposes PTYP in the amount of \$672,571, \$818,395, \$106,782, \$306,892,**  
12 **\$80,436 for Town Division, Palo Verde, Tonopah, Santa Cruz, and Willow Valley,**  
13 **respectively.**

14  
15 **Q. Did Staff make any adjustment to PTYP?**

16 **A. Yes. Based on Staff's engineering review and reflected in the testimony of Staff witness**  
17 **Jian Liu, Staff determined that certain items of PTYP are not in service and removed**  
18 **\$353,978, \$543,461, and \$80,436 from Town Division, Palo Verde, and Willow Valley,**  
19 **respectively.**

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

2 A. Staff recommends adjustments to decrease UPIS by \$353,978, \$543,461, and \$80,436 from  
3 Town Division, Palo Verde, and Willow Valley, respectively, as shown on Schedules  
4 GWB-4 and GWB-5 for the respective system.

5

6 **Rate Base Adjustment – Plant Reclassifications**

7 **Q. What did the Company propose?**

8 A. For all systems except Palo Verde, the Company includes plant balances in capstone  
9 account 320, Water Treatment Equipment and capstone account 330, Distribution  
10 Reservoirs.

11

12 **Q. Did Staff make any adjustment to Capstone account 320 Water Treatment  
13 Equipment and capstone account 330, Distribution Reservoirs.?**

14 A. Yes. Staff reclassified the amounts from capstone accounts 320, Water Treatment  
15 Equipment and 330, Distribution Reservoirs to the appropriate subaccounts as shown  
16 below. Being capstone accounts, these accounts do not bear their own unique depreciation  
17 rates. Instead, the plant underlying each capstone account bears its own unique  
18 depreciation rate and is depreciated accordingly. The adjustments to reclassify the amounts  
19 proposed by the Companies to the accounts recommended by Staff are shown in the table  
20 below.

Plant Reclassifications

	Account					
	320	320.1	320.2	330	330.1	330.2
Town Division	(\$4,091,843)	\$4,091,843		(\$4,800,409)	\$4,255,136	\$545,273
WUNS	(\$377)	\$377		(\$182,972)	\$182,972	
Tonopah	(\$1,626,520)	\$1,625,072	\$1,448	(\$228,655)	\$103,612	\$125,043
Buckeye	(\$844,990)	\$844,990		(\$588,494)	\$463,799	\$124,695
Santa Cruz	(\$27,095)	\$12,553	\$14,541	(\$1,378,273)	\$820,301	\$557,973
Willow Valley	(\$572,865)	\$303,188	\$269,677	(\$265,900)	\$220,751	\$45,148
Totals	(\$7,163,370)	\$6,878,343	\$285,986	(\$7,444,373)	\$6,046,901	\$1,398,462

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

A. Staff recommends the reclassifications from capstone account 320, Water Treatment Equipment to account 320.1, Water Treatment Plant and account 320.2, Solution Chemical Feeders, and from capstone account 330, Distribution Reservoirs and Standpipes to account 330.1, Storage Tanks and account 330.2, Pressure Tanks, as shown above and on Schedules GWB-4 for each respective system.

**Rate Base Adjustment – Contributions In Aid of Construction**

**Q. What amount of CIAC did the Global Companies include in rate base?**

A. The Global Companies included CIAC for all systems except WUNS and Willow Valley. They included \$1,860,537, \$30,362, \$73,118, \$407,979 and \$82,949 for Town Division, Palo Verde, Tonopah, Buckeye, and Santa Cruz, respectively. The Global Companies also had accumulated amortization related to CIAC in the amounts of \$272,596, \$0, \$13,653, \$171,882 and \$5,655 for Town Division, Palo Verde, Tonopah, Buckeye, and Santa Cruz, respectively.

1 **Q. Did Staff identify adjustments to CIAC that should be included in the rate bases of**  
2 **Palo Verde, Tonopah, and Santa Cruz?**

3 A. Yes. Staff witness James Armstrong discusses these adjustments in his testimony.  
4 Schedules GWB-3 and GWB-4 reflect Mr. Armstrong's recommendations.

5  
6 **Operating Income**

7 **Operating Income Summary**

8 **Q. What are the results of Staff's analysis of test year revenues, expenses and operating**  
9 **income for the Global Companies?**

10 A. Staff's analysis resulted in test year revenues, expenses, and operating income as follows:

11

	Test Year Revenues, Expenses, and Operating Income						
	Town Division	Palo Verde	No. Scottsdale	Tonopah	Buckeye	Santa Cruz	Willow Valley
Revenues	\$ 4,940,316	\$13,107,528	\$147,513	\$207,705	\$462,043	\$10,463,460	\$702,652
Expenses	\$ 4,813,364	\$9,528,270	\$124,041	\$286,299	\$419,800	\$ 8,232,612	\$774,400
Operating Income	\$ 126,952	\$3,579,258	\$23,472	\$(78,593)	\$ 42,243	\$2,230,848	\$(71,747)

12  
13

14 **Operating Income Adjustment – Excess Water Loss**

15 **Q. Did the Global companies experience water losses in excess of 10 percent during the**  
16 **test year?**

17 A. Yes. Town Division, Tonopah, Buckeye, Santa Cruz, and Willow Valley experienced  
18 water losses in excess of 10 percent.

1 **Q. Did Staff adjust Purchased Power and Chemicals Expense for these systems?**

2 A. Yes. The Companies' proposed and Staff recommended amounts, and Staff recommended  
3 adjustments are shown below.

4

Purchased Power

	Co Proposed	Staff Rec.	Adjustment	Ref.
Town Division	\$ 464,076	\$ 451,675	\$ (12,401)	GWB-11, -12
Tonopah	\$ 22,407	\$ 21,529	\$ (878)	GWB-11, -12
Buckeye	\$ 27,669	\$ 27,166	\$ (503)	GWB-11, -12
Santa Cruz	\$ 768,901	\$ 753,153	\$ (15,748)	GWB-11, -12
Willow Valley	\$ 43,747	\$ 38,997	\$ (4,750)	GWB-11, -12
	<u>\$ 1,326,800</u>	<u>\$ 1,292,520</u>	<u>\$ (34,280)</u>	

5

Chemicals

	Co Proposed	Staff Rec.	Adjustment	Ref.
Town Division	\$ 33,613	\$ 32,715	\$ (898)	GWB-11, -12
Tonopah	\$ 10,522	\$ 10,110	\$ (412)	GWB-11, -12
Buckeye	\$ 5,234	\$ 5,139	\$ (95)	GWB-11, -12
Santa Cruz	\$ 53,341	\$ 52,248	\$ (1,093)	GWB-11, -12
Willow Valley	\$ 55,422	\$ 49,404	\$ (6,018)	GWB-11, -12
	<u>\$ 158,132</u>	<u>\$ 149,616</u>	<u>\$ (8,516)</u>	

6

7 **Q. Why did Staff adjust Purchased Power and Chemicals Expense?**

8 A. These systems have water loss greater than the levels recommended by Staff, as discussed  
9 in greater detail by Staff witness, Jian Liu. The cost of the purchased power used to pump  
10 the water that is lost does not provide a benefit to customers; consequently, Staff reduced  
11 the purchased power cost to correspond to the portion of the water loss that is above  
12 Staff's recommended level of 10 percent. Similarly, the cost of chemicals to treat water  
13 that is lost does not provide a benefit to customers; consequently, Staff reduced the cost of  
14 chemicals to correspond to the portion of the water loss that is above Staff's recommended  
15 level of 10 percent.



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

2 A. Staff recommends decreasing the purchased power on the income statements of Town  
3 Division, Tonopah, Buckeye, Santa Cruz, and Willow Valley and decrease expenses by  
4 \$12,401, \$878, \$503, \$15,748, and \$4,750, respectively, to remove the purchased  
5 pumping power costs related to continuing high water losses. Similarly, Staff  
6 recommends decreasing chemical expense. These adjustments are made only to the  
7 income statements of Town Division, Tonopah, Buckeye, Santa Cruz, and Willow Valley  
8 and decrease expenses by \$898, \$412, \$95, \$1,093, and \$6,018, respectively, to remove  
9 the chemical expense related to continuing high water losses.

10  
11 **Operating Income Adjustment – Bad Debt Expense**

12 **Q. Did Staff adjust the Bad Debt Expense proposed by the Companies?**

13 A. Yes, the Companies proposed bad debt expense based on the amounts incurred during the  
14 test year. Staff recommends that a 3-year normalized amount more accurately reflects the  
15 ongoing amounts. The Companies' proposed and Staff recommended amounts, and Staff  
16 recommended adjustments are shown below.

17

Bad Debts	Co Proposed	Staff Rec.	Adjustment	Ref.
Town Division	\$ 30,898	\$ 32,606	\$ 1,708	GWB-11 & GWB-13
Palo Verde	\$ 82,936	\$ 132,386	\$ 49,450	GWB-11 & GWB-12
WUNS	\$ -	\$ 1,003	\$ 1,003	GWB-11 & GWB-12
Tonopah	\$ 4,769	\$ 2,223	\$ (2,546)	GWB-11 & GWB-13
Buckeye	\$ 11,295	\$ 3,835	\$ (7,460)	GWB-11 & GWB-13
Santa Cruz	\$ 53,925	\$ 73,244	\$ 19,319	GWB-11 & GWB-13
Willow Valley	\$ 8,251	\$ 4,076	\$ (4,175)	GWB-11 & GWB-13
Totals	\$ 192,074	\$ 249,373	\$ 57,299	

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

2 A. Staff recommends the following adjustments to the bad debts on the income statements to  
3 reflect normalized levels as follows: \$1,708 for Town Division; \$49,450 for Palo Verde;  
4 \$1,003 for WUNS; (\$2,546) for Tonopah; (\$7,460) for Buckeye; \$19,319 for Santa Cruz;  
5 and (\$4,175) for Willow Valley.

6

7 **Operating Income Adjustment – Rate Case Expense**

8 **Q. Did Staff adjust the Regulatory Commission Expense account?**

9 A. Yes.

10

11 **Q. What is the amount of total rate case expense proposed by the Company?**

12 A. The Companies propose approximately \$787,000 to be recovered as part of its rate case  
13 expense.

14

15 **Q. What adjustments did Staff make?**

16 A. Staff has adjusted the rate case expense for each system to reflect total rate case expense  
17 of \$400,000 which is the same amount approved in the last rate proceeding. A summary  
18 of the Companies' proposed and Staff recommended amounts by system is shown below.  
19

Rate Case Expense

	Co Proposed	Staff Rec.	Adjustment	Ref.
Town Division	\$ 35,298	\$ 17,936	\$ (17,362)	GWB-11 & GWB-14
Palo Verde	\$ 112,973	\$ 53,145	\$ (59,828)	GWB-11 & GWB-14
WUNS	\$ 502	\$ 255	\$ (247)	GWB-11 & GWB-14
Tonopah	\$ 2,140	\$ 1,088	\$ (1,052)	GWB-11 & GWB-14
Buckeye	\$ 4,142	\$ 2,105	\$ (2,037)	GWB-11 & GWB-14
Santa Cruz	\$ 105,801	\$ 53,762	\$ (52,039)	GWB-11 & GWB-14
Willow Valley	\$ 9,922	\$ 5,042	\$ (4,880)	GWB-11 & GWB-14
Totals	\$ 270,778	\$133,333	\$ (137,445)	

20

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

2 A. Staff recommends decreasing the rate case expense for all the Global Companies to reflect  
3 total rate case expense of \$400,000 for this proceeding by the following amounts:  
4 \$17,362 for Town Division; \$59,828 for Palo Verde; \$247 for WUNS; \$1,052 for  
5 Tonopah; \$2,037 for Buckeye; \$52,039 for Santa Cruz; and \$4,880 for Willow Valley.

6  
7 **Operating Income Adjustment – Salaries and Wages**

8 **Q. How did the Global Companies calculate their salaries and wages expense?**

9 A. The Global Companies used test year amounts.

10

11 **Q. Does Staff agree?**

12 A. No. In reviewing the Schedule E-2's included in the Companies' applications; Staff notes  
13 significant differences during the 3-year period ending with the test year for the Town  
14 Division, Palo Verde, Santa Cruz and Willow Valley. A summary of amounts by  
15 company and by year, along with the 3 year average and Staff recommended adjustments  
16 are shown below.

17

Salaries and Wages

	2009	2010	2011	2013 year avg	Adjustment
Town Division	\$ 732,812	\$ 934,314	\$ 893,501	\$ 853,542	\$ (39,959)
Palo Verde	\$1,086,546	\$1,186,924	\$1,472,381	\$1,248,617	\$ (223,764)
Santa Cruz	\$ 971,205	\$1,092,586	\$1,268,835	\$1,110,875	\$ (157,960)
Willow Valley	\$ 215,782	\$ 264,735	\$ 263,312	\$ 247,943	\$ (15,369)
Totals	\$3,006,345	\$3,478,559	\$3,898,029	\$3,460,978	\$ (437,051)

18

19 **Q. How did the Company explain the fluctuations?**

20 A. In response to a Staff data request, the Companies attribute the fluctuations due to reduced  
21 staffing levels during the economic downturn during the 2008-2009 periods.

22

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

2 A. Staff recommends decreasing the salaries and wages to reflect 3-year normalized amounts,  
3 as shown above, and shown on Schedule GWB-11.

4  
5 **Operating Income Adjustment – Materials and Supplies**

6 **Q. Similar to salaries and wages above, are there significant fluctuations in Material  
7 and Supplies expense?**

8 A. Yes, for the Town Division, Santa Cruz, and Willow Valley companies. As shown on  
9 Schedule E-2 of the respective Global Companies' applications, the Companies reported  
10 the following materials and supplies. A summary of amounts by company and by year,  
11 along with the 3 year average and Staff recommended adjustments are shown below.

12 **Materials & Supplies**

	2009	2010	2011	3 year avg	Adjustment
Town Division	\$ 22,682	\$ 69,827	\$ 79,398	\$ 57,302	\$ (22,096)
Santa Cruz	\$ 8,695	\$ 21,903	\$ 47,783	\$ 26,127	\$ (21,656)
Willow Valley	\$ 13,024	\$ 12,620	\$ 36,002	\$ 20,549	\$ (15,453)
Totals	\$ 44,401	\$ 104,350	\$ 163,183	\$ 103,978	\$ (59,205)

13  
14 **Q. How did the Company explain the fluctuations?**

15 A. In response to a Staff data request, the Companies' explanations include fluctuations due  
16 to reduced staffing levels during the economic downturn during the 2008-2009 period, an  
17 inconsistency related to the recording of amounts as chemical expense versus materials  
18 and supplies, and a one-time event that occurred in 2011.

19  
20 **Q. What is Staff's recommendation?**

21 A. Staff recommends decreasing the materials and supplies expenses, to reflect normalized  
22 amounts, as shown above and on Schedule GWB-11.

1 **Operating Income Adjustment – Outside Services**

2 **Q. Similar to salaries and wages above, are there significant fluctuations in Outside**  
3 **Services?**

4 **A.** Yes, for the Town Division, Palo Verde, Santa Cruz, and Willow Valley companies. As  
5 shown on Schedule E-2 of the respective Global Companies' applications, the Companies  
6 reported the following outside services. Staff has calculated the 2 year average and its  
7 recommended adjustment. A summary of amounts by company and by year, along with  
8 the 2 year average and Staff recommended adjustments are shown below.

9

Outside Services	2009	2010	2011	2 year avg	Adjustment
Town Division	\$ 35,943	\$ 223,902	\$ 531,316	\$ 377,609	\$ (153,707)
Palo Verde	\$ 55	\$ 313,096	\$ 901,541	\$ 607,319	\$ (294,222)
Santa Cruz	\$ 52,357	\$ 361,570	\$ 1,053,640	\$ 707,605	\$ (346,035)
Willow Valley	\$ 13,005	\$ 62,003	\$ 97,501	\$ 79,752	\$ (17,749)
Totals	\$ 101,360	\$ 960,571	\$ 2,583,998	\$ 1,772,285	\$(811,713)

10  
11 **Q. How did the Company explain the fluctuations?**

12 **A.** In response to a Staff data request, the Companies attribute the abnormally low expenses  
13 in 2009 due to prior practices when legal and accounting functions were performed at the  
14 parent level and not allocated.

15  
16 **Q. Does Staff agree?**

17 **A.** Based on a review of the information on the Companies' E-2 schedules, Staff agrees that  
18 the amounts recorded in 2009 for this account would not be representative of the activity  
19 to be expected during typical prospective years. However, under these circumstances,  
20 Staff recommends the use of a 2 year normalization period instead of a 3 year period.

21

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

2 A. Staff recommends decreasing the outside services, as shown above and as shown on  
3 Schedule GWB-11.

4  
5 **Operating Income Adjustment – Contractual Services - Testing**

6 **Q. What amount did Willow Valley propose for water testing expense?**

7 A. Willow Valley proposed \$20,993 for water testing expense.

8  
9 **Q. What is Staff's recommendation?**

10 A. Staff recommends decreasing Contractual Services – Testing by \$5,285 from \$20,993 to  
11 \$15,708, as discussed in the Staff engineering report. The adjustment is shown on  
12 Schedules GWB-11 and GWB-15B.

13  
14 **Operating Income Adjustment – Depreciation Expense**

15 **Q. Please provide a summary of the net depreciation and amortization expense amounts  
16 proposed by the Companies for each system, along with Staff's recommended  
17 amounts and Staff's recommended adjustments.**

18 A. A summary of the Companies proposed amounts, Staff recommended amounts and  
19 adjustments are shown below.

20

Depreciation

	Co Proposed	Staff Rec.	Adjustment	Ref.
Town Division	\$ 2,768,221	\$ 2,336,556	\$ (431,665)	GWB-11 & GWB-16
Palo Verde	\$ 3,519,422	\$ 3,043,250	\$ (476,172)	GWB-11 & GWB-16
WUNS	\$ 64,878	\$ 60,586	\$ (4,292)	GWB-11 & GWB-16
Tonopah	\$ 378,634	\$ 132,857	\$ (245,777)	GWB-11 & GWB-16
Buckeye	\$ 112,146	\$ 122,356	\$ 10,210	GWB-11 & GWB-16
Santa Cruz	\$ 3,613,647	\$ 2,937,220	\$ (676,427)	GWB-11 & GWB-16
Willow Valley	\$ 200,668	\$ 285,500	\$ 84,832	GWB-11 & GWB-16
Totals	\$10,657,616	\$ 8,918,325	\$(1,739,291)	

21

1 **Q. What adjustment did Staff make to depreciation expense?**

2 A. Staff adjusted depreciation expense to reflect application of the Staff recommended  
3 depreciation rates to Staff recommended plant balances. Staff also amortizes the Staff-  
4 recommended CIAC balance in its depreciation expense calculation.

5  
6 **Q. What is Staff's recommendation?**

7 A. Staff recommends adjusting depreciation expense amounts as shown above.  
8

9 **Operating Income Adjustment – Income Taxes**

10 **Q. Please provide a summary of the net income tax expense amounts proposed by the**  
11 **Companies for each system, along with Staff's recommended amounts and Staff's**  
12 **recommended adjustments.**

13 A. A summary of the Companies proposed amounts, Staff recommended amounts and  
14 adjustments are shown below.

15 *Income Tax Expense*

	Co Proposed	Staff Rec.	Adjustment	Ref.
Town Division	\$(249,144)	\$ 36,473	\$ 285,617	GWB-2 &GWB-11
Palo Verde	\$682,693	\$1,174,037	\$ 491,344	GWB-2 & GWB-11
WUNS	\$ 13,391	\$ 14,755	\$ 1,364	GWB-2 & GWB-11
Tonopah	\$(197,785)	\$ (43,696)	\$ 154,089	GWB-2 & GWB-11
Buckeye	\$ 5,783	\$ 12,584	\$ 6,801	GWB-2 & GWB-11
Santa Cruz	\$ 98,898	\$ 794,716	\$ 695,818	GWB-2 & GWB-11
Willow Valley	\$(106,730)	\$ (95,245)	\$ 11,485	GWB-2 & GWB-11
Totals	\$247,106	\$1,893,626	\$1,646,520	

16  
17 **Q. Did Staff make any adjustments to test year Income Tax Expense?**

18 A. Yes. Staff's adjustment reflects Staff's calculation of the income tax expense based upon  
19 Staff's adjusted test year taxable income.

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

2 A. Staff recommends adjusting the test year Income Tax Expense for the Global Companies  
3 as shown above.

4

5 **OTHER CONSIDERATIONS**

6 **Lead Lag Study**

7 **Q. Did the Companies provide a lead lag study in support of a cash working capital  
8 calculation?**

9 A. No. The Companies did not provide a lead lag study to support a cash working capital  
10 component of working capital.

11

12 **Q. What is the nature of Staff's concern regarding the absence of a lead lag study?**

13 A. In many instances, Class A, B, and C companies have a negative cash working capital  
14 which benefits the rate payers and more fairly presents this component of the company's  
15 rate bases. Smaller Class D and E companies do not experience negative cash working  
16 capital because those companies calculate cash working using the formula method which  
17 uses a portion of O & M expenses as its cash working capital.

18

19 **Q. What is Staff recommending?**

20 A. Staff recommends that the Companies be ordered to perform a lead lag study in support of  
21 a cash working capital amount in all future rate proceedings.

22

23 **Plant Additions**

24 **Q. Has Staff completed its review of the Companies' plant additions?**

25 A. No. At this time, Staff has not finished its review of plant additions and reserves  
26 opportunity to make adjustments as necessary in its surrebuttal testimony.



1 **Adjustor Mechanism – Central Arizona Groundwater Replenishment District (“CAGR D”)**

2 **Q. Do any of the Companies presently pay fees to CAGR D?**

3 A. No. However, the Company states that Tonopah has entered into a Member Service Area  
4 agreement with CAGR D for a Designation of Assured Water Supply that the Company  
5 expects to become effective in 2013. The Company states that there will annual  
6 replenishment dues and assessments and proposes to treat those fees as pass-through to  
7 customers as was recently approved for Johnson Utilities, LLC in Docket No.  
8 WS-02987A-08-0180<sup>1</sup>.

9  
10 **Q. What is Staff’s recommendation?**

11 A. Staff recommends the approval of a CAGR D adjustor mechanism subject to the same  
12 basic requirements of the adjustor mechanism approved for Johnson Utilities, LLC.

13  
14 **Q. Does this conclude your direct testimony?**

15 A. Yes, it does.

---

<sup>1</sup> See Company application, testimony of Ron Fleming 17 at 8 through 18 at 5.

**Global Water - Valencia Water Company, Town Division**

W-01212A-12-0309

Test Year Ended December 31, 2011

**DIRECT TESTIMONY OF GERALD BECKER**

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GWB- 3	RATE BASE - ORIGINAL COST
GWB- 4	SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS
GWB- 5	RATE BASE ADJUSTMENT #1 POST TEST YEAR PLANT
GWB- 6	NOT USED
GWB- 7	NOT USED
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GWB- 10	OPERATING INCOME STATEMENT - TEST YEAR AND STAFF RECOMMENDED
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GWB- 14	OPERATING INCOME ADJUSTMENT #3 - RATE CASE EXPENSE
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GWB- 16	OPERATING INCOME ADJUSTMENT #5 - DEPRECIATION EXPENSE
GWB- 17	OPERATING INCOME ADJUSTMENT #6 - INCOME TAXES
GWB- 18	OPERATING INCOME ADJUSTMENT #7 - PROPERTY TAX EXPENSE GRCF COMPONENT

Global Water - Valencia Water Company, Town Division  
W-01212A-12-0309  
Test Year Ended December 31, 2011

Schedule GWB-1

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	(A) COMPANY ORIGINAL COST	(B) COMPANY FAIR VALUE	(C) STAFF ORIGINAL COST	(D) STAFF FAIR VALUE
1	Adjusted Rate Base	\$ 2,323,475	\$ 2,323,475	\$ 1,969,496	\$ 1,969,496
2	Adjusted Operating Income (Loss)	\$ (263,809)	\$ (263,809)	\$ 126,952	\$ 126,952
3	Current Rate of Return (L2 / L1)	-11.35%	-11.35%	6.45%	6.45%
4	Required Rate of Return	10.27%	10.27%	7.50%	7.50%
5	Required Operating Income (L4 * L1)	\$ 238,621	\$ 238,621	\$ 147,712	\$ 147,712
6	Operating Income Deficiency (L5 - L2)	\$ 502,430	\$ 502,430	\$ 20,760	\$ 20,760
7	Gross Revenue Conversion Factor	1.6389	1.6389	1.6698	1.6698
8	Required Revenue Increase (L7 * L6)	\$ 823,424	\$ 823,424	<b>\$ 34,666</b>	<b>\$ 34,666</b>
9	Adjusted Test Year Revenue	\$ 4,940,316	\$ 4,940,316	\$ 4,940,316	\$ 4,940,316
10	Proposed Annual Revenue (L8 + L9)	\$ 5,763,740	\$ 5,763,740	\$ 4,974,981	\$ 4,974,981
11	Required Increase in Revenue (%)	16.67%	16.67%	0.70%	0.70%
12	Rate of Return on Common Equity (%)	11.44%	11.44%	9.40%	9.40%

References:

Column [A]: Company Schedule A-1

Column (B): Company Schedule A-1

Column (C): Company Schedules A-1, A-2, & D-1

Column (C): Staff Schedules GWB-2, GWB-3, and GWB-10

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)
<u>Calculation of Gross Revenue Conversion Factor:</u>				
1	Revenue	100.0000%		
2	Uncollectible Factor (Line 11)	0.4052%		
3	Revenues (L1 - L2)	99.5948%		
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	39.7078%		
5	Subtotal (L3 - L4)	59.8870%		
6	Revenue Conversion Factor (L1 / L5)	1.669812		
<u>Calculation of Uncollectible Factor:</u>				
7	Unity	100.0000%		
8	Combined Federal and State Tax Rate (Line 17)	38.5989%		
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%		
10	Uncollectible Rate	0.6600%		
11	Uncollectible Factor (L9 * L10)		0.4052%	
<u>Calculation of Effective Tax Rate:</u>				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%		
13	Arizona State Income Tax Rate	6.9680%		
14	Federal Taxable Income (L12 - L13)	93.0320%		
15	Applicable Federal Income Tax Rate (Line 44)	34.0000%		
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%		
17	Combined Federal and State Income Tax Rate (L13 +L16)		38.5989%	
<u>Calculation of Effective Property Tax Factor</u>				
18	Unity	100.0000%		
19	Combined Federal and State Income Tax Rate (L17)	38.5989%		
20	One Minus Combined Income Tax Rate (L18-L19)	61.4011%		
21	Property Tax Factor (GWB-18, L25)	1.8060%		
22	Effective Property Tax Factor (L20*L21)		1.1089%	
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			39.7078%

24	Required Operating Income (Schedule GWB-1, Line 5)	\$ 147,712		
25	Adjusted Test Year Operating Income (Loss) (Schedule GWB-10, Line 36)	\$ 126,952		
26	Required Increase in Operating Income (L24 - L25)		\$ 20,760	
27	Income Taxes on Recommended Revenue (Col. (C), L48)	\$ 49,524		
28	Income Taxes on Test Year Revenue (Col. (A), L48)	\$ 36,473		
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		\$ 13,051	
30	Required Revenue Increase (Schedule GWB-1, Line 8)	\$ 34,666		
31	Uncollectible Rate (Line 10)	0.6600%		
32	Uncollectible Expense on Recommended Revenue (L30 * L31)	\$ 229		
33	Adjusted Test Year Uncollectible Expense - N/A	\$ -		
34	Required Increase in Revenue to Provide for Uncollectible Exp.		\$ 229	
35	Property Tax with Recommended Revenue (GWB-18, Line 21)	\$ 274,306		
36	Property Tax on Test Year Revenue (GWB-18, Col A, L19)	\$ 273,680		
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		\$ 626	
38	Total Required Increase in Revenue (L26 + L29 + L34+ L37)		\$ 34,666	

	(A) Test Year	(B)	(C) Staff Recommended
<u>Calculation of Income Tax:</u>			
39	Revenue (Sch GWB-10, Col.(C) L4, GWB-1, Col. (D), L10)	\$ 4,940,316	\$ 4,974,981
40	Operating Expenses Excluding Income Taxes	\$ 4,776,890	\$ 4,777,745
41	Synchronized Interest (L53)	\$ 68,932	\$ 68,932
42	Arizona Taxable Income (L39 - L40 - L41)	\$ 94,493	\$ 128,304
43	Arizona State Income Tax Rate	6.9680%	6.9680%
44	Arizona Income Tax (L42 x L43)	\$ 6,584	\$ 8,940
45	Federal Taxable Income (L42 - L44)	\$ 87,908	\$ 119,363
46	Federal Tax	\$ 29,889	\$ 40,584
47	Total Federal Income Tax	\$ 29,889	\$ 40,584
48	Combined Federal and State Income Tax (L43 + L47)	\$ 36,473	\$ 49,524

50 Effective Tax Rate

Calculation of Interest Synchronization:

51	Rate Base (Schedule GWB-3, Col. (C), Line 18)	N/A
52	Weighted Average Cost of Debt	\$ 1,969,496
53	Synchronized Interest (L50 X L51)	\$ 3,5000%
		\$ 68,932

**RATE BASE - ORIGINAL COST**

LINE NO.	(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	(C) STAFF AS ADJUSTED
1	\$ 53,624,734	\$ (353,979)	\$ 53,270,755
2	9,419,952	-	9,419,952
3	<u>\$ 44,204,782</u>	<u>\$ (353,979)</u>	<u>\$ 43,850,803</u>
<u>LESS:</u>			
4	\$ 1,860,537	\$ -	\$ 1,860,537
5	272,596	-	272,596
6	<u>1,587,941</u>	<u>-</u>	<u>1,587,941</u>
7	39,299,151	-	39,299,151
8	-	-	-
9	-	-	-
10	1,159,524	-	1,159,524
	Customer Meter Deposits		395,015
	395,015		395,015
<u>ADD:</u>			
11	560,324	-	560,324
12	-	-	-
13	-	-	-
14	-	-	-
15	-	-	-
16	-	-	-
17	-	-	-
18	<u>\$ 2,323,475</u>	<u>\$ (353,979)</u>	<u>\$ 1,969,496</u>

References:

Column (A), Company Schedule B-2  
Column (B): Schedule GWB-4  
Column (C): Column (A) + Column (B)

**SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS**

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Post Test Year Plant ADJ #1 GWB-5	[C] Reclassification ADJ #2 Per Testimony	[C] STAFF ADJUSTED
<u>PLANT IN SERVICE:</u>						
1	303	Land and Land Rights	\$ 150,432	\$ -	\$ -	\$ 150,432
2	304	Structures and Improvements	1,037,614			1,037,614
3	307	Wells and Springs	1,859,615			1,859,615
4	309	Supply Mains	46,790			46,790
5	310	Power Generation Equipment	67,508			67,508
6	311	Pumping Equipment	8,217,566			8,217,566
7	320	Water Treatment Equipment	4,091,843		(4,091,843)	-
8	320.1	Water Treatment Plant			4,091,843	4,091,843
9	320.2	Solution Chemical Feeders				-
10	330	Distribution Reservoirs and Standpipes	4,800,409		(4,800,409)	-
11	330.1	Storage Tanks			4,255,136	4,255,136
12	330.2	Pressure Tanks			545,273	545,273
13	331	Transmission and Distribution Mains	21,453,994			21,453,994
14	333	Services	3,278,935			3,278,935
15	334	Meters and Meter Installations	1,470,247			1,470,247
16	335	Hydrants	1,981,787			1,981,787
17	336	Backflow Prevention Devices	13,916			13,916
18	339	Other Plant and Miscellaneous Equipment	177,934			177,934
19	340	Office Furniture and Equipment	50,956			50,956
20	341	Transportation Equipment	319,350			319,350
21	343	Tools, Shop and Garage Equipment	94,283			94,283
22	344	Laboratory Equipment	42,598			42,598
23	345	Power Operated Equipment	61,507			61,507
24	346	Communication Equipment	790,032			790,032
25	347	Miscellaneous Equipment	17,310			17,310
26	348	Other Tangible Plant	3,597,358	(353,978)		3,243,380
27	390	Office Furniture	2,753			2,753
28	<b>Total Plant in Service</b>		<b>53,624,734</b>	<b>(353,978)</b>	<b>(0)</b>	<b>53,270,755</b>
29	Accumulated Depreciation		9,419,952	-		9,419,952
30	Net Plant in Service		\$ 44,204,782	\$ (353,978)	\$ (0)	\$ 43,850,803
31						
32						
33	<u>LESS:</u>					
34	Contributions in Aid of Construction (CIAC)		\$ 1,860,537		\$ -	\$ 1,860,537
35	Less: Accumulated Amortization		272,596			272,596
36	Net CIAC (L63 - L64)		1,587,941			1,587,941
37	Advances in Aid of Construction (AIAC)		39,299,151			39,299,151
38	Imputed Reg Advances		-			-
39	Imputed Reg CIAC					-
40	Accumulated Deferred Income Tax Credits		1,159,524			1,159,524
41	Customer Meter Deposits		395,015			395,015
42	<u>ADD:</u>					
43	Accumulated Deferred Income Tax Debits		560,324			560,324
44	Working Capital Allowance					-
45						
50	<b>Original Cost Rate Base</b>		<b>\$ 2,323,475</b>	<b>\$ (353,978)</b>	<b>\$ (0)</b>	<b>\$ 1,969,496</b>

Global Water - Valencia Water Company, Town Division  
W-01212A-12-0309  
Test Year Ended December 31, 2011

Schedule GWB-5

RATE BASE ADJUSTMENT #1 POST TEST YEAR PLANT

LINE NO.	ACCT NO.	Description	[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	[C] STAFF AS ADJUSTED
1	348	Other Tangible Plant	353,978	(353,978)	-
		<u>Disallowed PTYP</u>			
		Bales Fill Line	\$ 78,750		
		Buena Vista Fill Line	\$ 203,702		
		SVWDC Optimization	<u>\$ 71,526</u>		
			<u>\$ 353,978</u>		

References:

Column [A] : Disallowed Amount reflected in Acct. 348, PTYP, Per Co Schedule B-2.1  
Column [B] , Col [C] less Col [A]  
Column [C] , Per testimony GWB and Engineering testimony

OPERATING INCOME STATEMENT - TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF RECOMMENDED CHANGES	[E] STAFF RECOMMENDED
1	461 Metered Water Revenue	\$ -	\$ -	\$ -	\$ 34,666	\$ 34,666
2	460 Unmetered Water Revenue	4,803,374	-	4,803,374	-	4,803,374
3	474 Other Water Revenues	136,942	-	136,942	-	136,942
4	<b>Total Operating Revenues</b>	<b>\$ 4,940,316</b>	<b>\$ -</b>	<b>\$ 4,940,316</b>	<b>\$ 34,666</b>	<b>\$ 4,974,981</b>
5	601 Salary and Wages - Employees	\$ 893,501	\$ (39,959)	\$ 853,542	\$ -	\$ 853,542
6	610 Purchased Water	269	-	269	-	269
7	615 Purchased Power	464,076	(12,401)	451,675	-	451,675
8	618 Chemicals	33,613	(898)	32,715	-	32,715
9	620 Materials and Supplies	79,398	(22,096)	57,302	-	57,302
10	621 Office Supplies and Expense	62,865	-	62,865	-	62,865
11	630 Outside Services	531,316	(153,707)	377,609	-	377,609
12	635 Contractual Services - Testing	14,571	-	14,571	-	14,571
13	636 Contractual Services - Other	-	-	-	-	-
14	641 Rental of Building/Real Property	43,412	-	43,412	-	43,412
15	650 Transportation Expenses	88,775	-	88,775	-	88,775
16	657 Insurance - General Liability	33,142	-	33,142	-	33,142
17	659 Insurance - Other	5,460	-	5,460	-	5,460
18	666 Regulatory Commission Expenses	35,298	(17,362)	17,936	-	17,936
19	670 Bad Debt Expense	30,898	1,708	32,606	229	32,835
20	675 Miscellaneous Expenses	79,463	-	79,463	-	79,463
21	403 Depreciation Expense	2,832,046	(431,665)	2,400,381	-	2,400,381
22	403 Depreciation Expense - CIAC /	(63,825)	-	(63,825)	-	(63,825)
23	408 Taxes Other Than Income	15,312	-	15,312	-	15,312
24	408.11 Taxes Other Than Income -	273,680	-	273,680	626	274,306
25	409 Income Taxes	(249,144)	285,617	36,473	13,051	49,524
26	<b>Total Operating Expenses</b>	<b>5,204,124</b>	<b>(390,761)</b>	<b>4,813,364</b>	<b>13,905</b>	<b>4,827,269</b>
27	<b>Operating Income (Loss)</b>	<b>\$ (263,809)</b>	<b>\$ 390,761</b>	<b>\$ 126,952</b>	<b>\$ 20,760</b>	<b>\$ 147,712</b>

References:

- Column (A): Company Schedule C-1
- Column (B): Schedule GWB 11
- Column (C): Column (A) + Column (B)
- Column (D): Schedules GWB 2, Lines 29, 34 and 37
- Column (E): Column (C) + Column (D)



**SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR**

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Excess Water Loss ADJ #1 GWB-12	[C] Bad Debts Exp ADJ #2 GWB-13	[D] Rate Case Exp ADJ #3 GWB-14	[E] Expense Normalizations ADJ #4 GWB-15	[F] Deprec. Exp ADJ #5 GWB-16	[E] Income Taxes ADJ #6 GWB-17	[H] STAFF ADJUSTED
1	461 Metered Water Revenue	4,803,374	-	-	-	-	-	-	4,803,374
2	460 Unmetered Water Revenue	-	-	-	-	-	-	-	136,942
3	474 Other Water Revenues	-	-	-	-	-	-	-	4,940,316
4	<b>Total Operating Revenues</b>	<b>\$ 4,803,374</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,940,316</b>
	<b>Operating Expenses</b>								
5	601 Salary and Wages - Employees	893,501	-	-	-	-	-	-	893,501
6	610 Purchased Water	269	-	-	-	-	-	-	269
7	615 Purchased Power	464,076	(12,401)	-	-	(39,959)	-	-	451,675
8	618 Chemicals	33,613	(898)	-	-	-	-	-	32,715
9	620 Materials and Supplies	79,398	-	-	-	-	-	-	79,398
10	621 Office Supplies and Expense	62,865	-	-	-	(22,096)	-	-	57,302
11	630 Outside Services	531,316	-	-	-	-	-	-	531,316
12	635 Contractual Services - Testing	14,571	-	-	-	(153,707)	-	-	14,571
13	636 Contractual Services - Other	-	-	-	-	-	-	-	-
14	641 Rental of Building/Real Property	43,412	-	-	-	-	-	-	43,412
15	650 Transportation Expenses	88,775	-	-	-	-	-	-	88,775
16	657 Insurance - General Liability	33,142	-	-	-	-	-	-	33,142
17	659 Insurance - Other	5,460	-	-	-	-	-	-	5,460
18	666 Regulatory Commission Expense -	35,298	-	-	-	-	-	-	35,298
19	670 Bad Debt Expense	30,898	-	1,708	(17,362)	-	-	-	14,571
20	675 Miscellaneous Expenses	79,463	-	-	-	-	-	-	79,463
21	403 Depreciation Expense	2,832,046	-	-	-	-	(431,665)	-	2,400,381
22	403 Depreciation Expense - CIAC Amor	(63,825)	-	-	-	-	-	-	(63,825)
23	408 Taxes Other Than Income	15,312	-	-	-	-	-	-	15,312
24	408.11 Taxes Other Than Income - Prop	273,680	-	-	-	-	-	-	273,680
25	409 Income Taxes	(249,144)	-	-	-	-	-	-	15,312
26	<b>Total Operating Expenses</b>	<b>\$ 5,204,124</b>	<b>\$ (13,299)</b>	<b>\$ 1,708</b>	<b>\$ (17,362)</b>	<b>\$ (215,761)</b>	<b>\$ (431,665)</b>	<b>\$ 285,617</b>	<b>\$ 273,680</b>
27	<b>Operating Income</b>	<b>\$ (263,809)</b>	<b>\$ 13,299</b>	<b>\$ (1,708)</b>	<b>\$ 17,362</b>	<b>\$ 215,761</b>	<b>\$ 431,665</b>	<b>\$ (285,617)</b>	<b>\$ 4,813,364</b>
									<b>\$ 126,952</b>

**OPERATING INCOME ADJUSTMENT #1 - EXCESS WATER LOSS**

**LINE  
NO.**

1	One plus allowable water loss	110.00%
2	One plus actual water loss	113.02%
3	Allowable portion	97.33%
4	Disallowable portion	<u>2.67%</u>
5	Power Expense	464,076
6	Disallowance	\$ 12,401
7	Chemical Expense	33,613
8	Disallowance	\$ 898

Line 1: Maximum acceptable level of water losses

Line 2: Actual level of water losses

Line 3: Line 2 / line 3

Line 4: 1 minus line 4

Line 6: Line 1 times line 5

Lines 1 - 6: See also testimony GWB

**OPERATING INCOME ADJUSTMENT #2 - BAD DEBT EXPENSE**

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF RECOMMENDED*
1		\$ 30,898	\$ 1,708	\$ 32,606

References:

Column (A), Company Workpapers

Column (B): Testimony GWB

Column (C): Column (A) + Column (B), Per Co Response  
to Staff DR 5.8

Adjusted Test Year Revenues GWB-11	\$ 4,940,316
Bad Debt Expense Rate, per Staff	0.0066
Expected Bad Debt Expense	\$ 32,606
Co Proposed	\$ 30,898
	\$ 1,708

OPERATING INCOME ADJUSTMENT #3 - RATE CASE EXPENSE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF RECOMMENDED
1		\$ 35,298	\$ (17,362)	\$ 17,936

Company Proposed Rate Case Expense

	Total	Palo Verde	Santa Cruz	Town Division	Willow Valley	Tonopah	Buckeye	WUNS
2 Allocation Percentages		39.86%	40.32%	13.45%	3.78%	0.82%	1.58%	0.19%
3 Desert Mountain Analytical Services	\$ 122,063	\$ 48,852	\$ 49,218	\$ 16,420	\$ 4,616	\$ 998	\$ 1,927	\$ 234
4 Insight Consulting, LLC	\$ 216,000	\$ 86,094	\$ 87,095	\$ 29,057	\$ 8,168	\$ 1,762	\$ 3,410	\$ 413
5 Roshka Dewulf & Patten, PLC	\$ 370,303	\$ 147,597	\$ 149,313	\$ 49,814	\$ 14,004	\$ 3,021	\$ 5,846	\$ 709
6 Ullmann & Company P C	\$ 78,809	\$ 31,412	\$ 31,777	\$ 10,602	\$ 2,980	\$ 643	\$ 1,244	\$ 151
7 Total	\$ 787,174	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506
8 Amortization over 3 years:								
9 Year 1	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,298	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502
10 Year 2	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,298	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502
11 Year 3	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,298	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502
12 Totals	\$ 787,174	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506

Staff Recommended Rate Case Expense

	Total	Palo Verde	Santa Cruz	Town Division	Willow Valley	Tonopah	Buckeye	WUNS
13 Description								
14 Staff Recommended Amount	\$ 400,000	\$ 159,434	\$ 161,287	\$ 53,809	\$ 15,127	\$ 3,263	\$ 6,315	\$ 765
15 Amortization over 3 years:								
16 Year 1	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255
17 Year 2	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255
18 Year 3	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255
19 Total	\$ 400,000	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506
20 Adjustment Total, by System	\$ (129,058)	\$ (51,441)	\$ (52,038)	\$ (17,361)	\$ (4,881)	\$ (1,053)	\$ (2,037)	\$ (247)

References:

Column (A): Company Workpapers  
Column (B): Line 20 for respective system  
Column (C): Line 16 for respective system

**OPERATING INCOME ADJUSTMENT #4 - EXPENSE NORMALIZATIONS**

<u>LINE NO.</u>	<u>ACCT / DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED</u>
1	601 Salary and Wages - Employees	\$ 893,501	\$ (39,959)	\$ 853,542
2	620 Materials and Supplies	\$ 79,398	\$ (22,096)	\$ 57,302
3	630 Outside Services	\$ 531,316	\$ (153,707)	\$ 377,609
		<u>\$ 610,714</u>	<u>\$ (175,803)</u>	<u>\$ 434,911</u>

References:

Column (A), Company Workpapers  
Column (B): Testimony GWB  
Column (C): Column (A) + Column (B)

OPERATING INCOME ADJUSTMENT #5 - DEPRECIATION EXPENSE

LINE NO.	ACCT. NO.	DESCRIPTION	[A] PLANT BALANCE	[B] DEPRECIATION RATE	[C] DEPRECIATION EXPENSE
1		<u>PLANT IN SERVICE:</u>			
2	303	Land and Land Rights	150,432	0.00%	-
3	304	Structures and Improvements	1,037,614	3.33%	34,553
4	307	Wells and Springs	1,859,615	3.33%	61,925
5	309	Supply Mains	46,790	2.00%	936
6	310	Power Generation Equipment	67,508	5.00%	3,375
7	311	Pumping Equipment	8,217,566	12.50%	1,027,196
8	320	Water Treatment Equipment	-		-
9	320.1	Water Treatment Plant	4,091,843	3.33%	136,258
10	320.2	Solution Chemical Feeders	-	20.00%	-
11	330	Distribution Reservoirs and Standpipes	-		-
12	330.1	Storage Tanks	4,255,136	2.22%	94,464
13	330.2	Pressure Tanks	545,273	5.00%	27,264
14	331	Transmission and Distribution Mains	21,453,994	2.00%	429,080
15	333	Services	3,278,935	3.33%	109,189
16	334	Meters and Meter Installations	1,470,247	8.33%	122,472
17	335	Hydrants	1,981,787	2.00%	39,636
18	336	Backflow Prevention Devices	13,916	6.67%	928
19	339	Other Plant and Miscellaneous Equipment	177,934	6.67%	11,868
20	340	Office Furniture and Equipment	50,956	6.67%	3,399
21	341	Transportation Equipment	319,350	20.00%	63,870
22	343	Tools, Shop and Garage Equipment	94,283	5.00%	4,714
23	344	Laboratory Equipment	42,598	10.00%	4,260
24	345	Power Operated Equipment	61,507	5.00%	3,075
25	346	Communication Equipment	790,032	10.00%	79,003
26	347	Miscellaneous Equipment	17,310	10.00%	1,731
27	348	Other Tangible Plant	3,243,380	5.00%	162,169
28	390	Office Furniture	2,753	4.50%	124
29		Total Plant	<u>53,270,755</u>		<u>2,421,364</u>
30		Less: Non Depreciable Plant			
31		Land and Land Rights	150,432		
32		Net Depreciable Plant and Depreciation Amounts	\$ 53,120,324		\$ 2,421,364
33					
34					
35		Amortization of CIAC	\$ 1,860,537	4.5583%	\$ 84,808
36		Staff Recommended Depreciation Expense			\$ 2,336,556
37		Company Proposed Depreciation Expense			\$ 2,768,221
38		Staff Adjustment			\$ (431,665)

References:	
Col [A]	Schedule GWB-4
Col [B]	Proposed Rates per Staff Engineering Report
Col [C]	Col [A] times Col [B]

Global Water - Valencia Water Company, Town Division  
W-01212A-12-0309  
Test Year Ended December 31, 2011

Schedule GWB-17

**OPERATING INCOME ADJUSTMENT #6 - INCOME TAXES**

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED</u>
1	Income Taxes	<u>\$ (249,144)</u>	<u>\$ 285,617</u>	<u>\$ 36,473</u>

References:

Column (A), Company Schedule C-2  
Column (B): Testimony GWB  
Column (C): Column (A) + Column (B),  
see also Sch. GWB-2, line 48

OPERATING INCOME ADJUSTMENT #7 - PROPERTY TAX EXPENSE GRCF COMPONENT

LINE NO.	DESCRIPTION	[A]	[B]
		STAFF AS ADJUSTED	STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues - 2011	\$ 4,940,316	\$ 4,940,316
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	9,880,631	9,880,631
4	Staff Adjusted Test Year Revenues - 2011	4,940,316	
5	Staff Recommended Revenue		4,974,981
6	Subtotal (Line 4 + Line 5)	14,820,947	14,855,612
7	Number of Years	3	3
8	Three Year Average (Line 5 / Line 6)	4,940,316	4,951,871
9	Department of Revenue Multiplier	2	2
10	Revenue Base Value (Line 7 * Line 8)	9,880,631	9,903,742
11	Plus: 10% of CWIP	265,232	265,232
12	Less: Net Book Value of Licensed Vehicles	43,247	43,247
13	Full Cash Value (Line 10 + Line 11 - Line 12)	10,102,616	10,125,727
14	Assessment Ratio	21.0%	21.0%
15	Assessment Value (Line 13 * Line 14)	2,121,549	2,126,403
16	Composite Property Tax Rate	12.9000%	12.9000%
17	Staff Test Year Adjusted Property Tax Expense (Line 15 * Line 16)	\$ 273,680	
18	Company Proposed Property Tax	\$ 273,680	
19	Staff Test Year Adjustment (Line 17 - Line 18)	\$ 0	
20	Property Tax on Staff Recommended Revenue (Line 15 * Line 16)		\$ 274,306
21	Staff Test Year Adjusted Property Tax Expense (Line 17)		\$ 273,680
22	Increase in Property Tax Due to Increase in Revenue Requirement		\$ 626
23	Increase in Property Tax Due to Increase in Revenue Requirement (Line 22)		\$ 626
24	Increase in Revenue Requirement		\$ 34,666
25	Increase in Property Tax Per Dollar Increase in Revenue (Line 23 / Line 24)		1.80600%

REFERENCES:

Line 15: Composite Tax Rate, per Company  
Line 18: Company Schedule C-1, Line 36



**Global Water-Palo Verde Sewer**  
Docket No. SW-20445A-12-0310  
Test Year Ended December 31, 2011

**DIRECT TESTIMONY OF GERALD BECKER**

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GWB 4	SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS
GWB 5	RATE BASE ADJUSTMENT #1 POST TEST YEAR PLANT
GWB 6	NOT USED
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GWB 8	NOT USED
GWB 9	NOT USED
GWB 10	OPERATING INCOME STATEMENT - TEST YEAR AND STAFF RECOMMENDED
GWB 11	SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR
GWB 12	OPERATING INCOME ADJUSTMENT #1 - BAD DEBT EXPENSE
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GWB 18	OPERATING INCOME ADJUSTMENT #6 - PROPERTY TAX EXPENSE GRFC COMPONE

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	(A) COMPANY ORIGINAL COST	(B) COMPANY FAIR VALUE	(C) STAFF ORIGINAL COST	(D) STAFF FAIR VALUE
1	Adjusted Rate Base	\$ 60,166,756	\$ 60,166,756	\$ 48,904,575	\$ 48,904,575
2	Adjusted Operating Income (Loss)	\$ 3,066,067	\$ 3,066,067	\$ 3,579,258	\$ 3,579,258
3	Current Rate of Return (L2 / L1)	5.10%	5.10%	7.32%	7.32%
4	Required Rate of Return	8.81%	8.81%	7.50%	7.50%
5	Required Operating Income (L4 * L1)	\$ 5,300,691	\$ 5,300,691	\$ 3,667,843	\$ 3,667,843
6	Operating Income Deficiency (L5 - L2)	\$ 2,234,623	\$ 2,234,623	\$ 88,585	\$ 88,585
7	Gross Revenue Conversion Factor	1.639005	1.639005	1.688688	1.688688
8	Required Revenue Increase (L7 * L6)	\$ 3,662,560	\$ 3,662,560	<b>\$ 149,593</b>	<b>\$ 149,593</b>
9	Adjusted Test Year Revenue	\$ 13,107,528	\$ 13,107,528	\$ 13,107,528	\$ 13,107,528
10	Proposed Annual Revenue (L8 + L9)	\$ 16,770,088	\$ 16,770,088	\$ 13,257,121	\$ 13,257,121
11	Required Increase in Revenue (%)	27.94%	27.94%	1.14%	1.14%
12	Rate of Return on Common Equity (%)	11.44%	11.44%	9.40%	9.40%

References:

Column [A]: Company Schedule A-1  
Column (B): Company Schedule A-1  
Column (C): Company Schedules A-1, A-2, & D-1  
Column (D): Staff Schedules GWB-2, GWB-3, and GWB-10

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)
<u>Calculation of Gross Revenue Conversion Factor:</u>				
1	Revenue	100.0000%		
2	Uncollectible Factor (Line 11)	0.6202%		
3	Revenues (L1 - L2)	99.3798%		
4	Combined Federal and State Income Tax and Property Tax Rate (Line 2)	40.1623%		
5	Subtotal (L3 - L4)	59.2176%		
6	Revenue Conversion Factor (L1 / L5)	1.688688		
<u>Calculation of Uncollectible Factor:</u>				
7	Unity	100.0000%		
8	Combined Federal and State Tax Rate (Line 17)	38.5986%		
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4014%		
10	Uncollectible Rate	1.0100%		
11	Uncollectible Factor (L9 * L10)		0.6202%	
<u>Calculation of Effective Tax Rate:</u>				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%		
13	Arizona State Income Tax Rate	6.9680%		
14	Federal Taxable Income (L12 - L13)	93.0320%		
15	Applicable Federal Income Tax Rate (Line 44)	33.9987%		
16	Effective Federal Income Tax Rate (L14 x L15)	31.6306%		
17	Combined Federal and State Income Tax Rate (L13 +L16)		38.5986%	
<u>Calculation of Effective Property Tax Factor</u>				
18	Unity	100.0000%		
19	Combined Federal and State Income Tax Rate (L17)	38.5986%		
20	One Minus Combined Income Tax Rate (L18-L19)	61.4014%		
21	Property Tax Factor (GWB-18, L25)	2.5466%		
22	Effective Property Tax Factor (L20*L21)		1.5636%	
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			40.1623%

24	Required Operating Income (Schedule GWB-1, Line 5)	\$ 3,667,843		
25	Adjusted Test Year Operating Income (Loss) (Schedule GWB-10, Line 3)	\$ 3,579,258		
26	Required Increase in Operating Income (L24 - L25)		\$ 88,585	
27	Income Taxes on Recommended Revenue (Col. (C), L48)	\$ 1,229,725		
28	Income Taxes on Test Year Revenue (Col. (A), L48)	\$ 1,174,037		
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		\$ 55,688	
30	Required Revenue Increase (Schedule GWB-1, Line 8)	\$ 149,593		
31	Uncollectible Rate (Line 10)	1.0100%		
32	Uncollectible Expense on Recommended Revenue (L30 * L31)	\$ 1,511		
33	Adjusted Test Year Uncollectible Expense - N/A	\$ -		
34	Required Increase in Revenue to Provide for Uncollectible Exp.		\$ 1,511	
35	Property Tax with Recommended Revenue (GWB-18, Line 21)	\$ 1,067,882		
36	Property Tax on Test Year Revenue (GWB-18, Col A, L19)	\$ 1,064,073		
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		\$ 3,810	
38	Total Required Increase in Revenue (L26 + L29 + L34+ L37)		\$ 149,593	

	(A) Test Year	(B)	(C) Staff Recommended
<u>Calculation of Income Tax:</u>			
39	Revenue (Sch GWB-10, Col.(C) L4, GWB-1, Col. (D), L10)	\$ 13,107,528	\$ 13,257,121
40	Operating Expenses Excluding Income Taxes	\$ 8,354,233	\$ 8,359,553
41	Synchronized Interest (L53)	\$ 1,711,660	\$ 1,711,660
42	Arizona Taxable Income (L39 - L40 - L41)	\$ 3,041,635	\$ 3,185,908
43	Arizona State Income Tax Rate	6.9680%	6.9680%
44	Arizona Income Tax (L42 x L43)	\$ 211,941	\$ 221,994
45	Federal Taxable Income (L42 - L44)	\$ 2,829,694	\$ 2,963,914
46	Federal Tax	\$ 962,096	\$ 1,007,731
47	Total Federal Income Tax	\$ 962,096	\$ 1,007,731
48	Combined Federal and State Income Tax (L43 + L47)	\$ 1,174,037	\$ 1,229,725

50 Effective Tax Rate

Calculation of Interest Synchronization:

51	Rate Base (Schedule GWB-3, Col. (C), Line 18)	\$ 48,904,575
52	Weighted Average Cost of Debt	3.5000%
53	Synchronized Interest (L50 X L51)	\$ 1,711,660

**RATE BASE - ORIGINAL COST**

LINE NO.	(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	(C) STAFF AS ADJUSTED
1	Plant in Service	\$ 109,787,648	\$ 109,244,187
2	Less: Accumulated Depreciation	(19,012,634)	(19,012,634)
3	Net Plant in Service	<u>\$ 90,775,014</u>	<u>\$ 90,231,553</u>
<u>LESS:</u>			
4	Contributions in Aid of Construction (CIAC)	\$ 30,362	\$ 12,745,332
5	Less: Accumulated Amortization	-	1,996,250
6	Net CIAC	<u>30,362</u>	<u>10,749,082</u>
7	Advances in Aid of Construction (AIAC)	27,839,315	27,839,315
8	Imputed Reg AIAC	-	-
9	Imputed Reg CIAC	-	-
10	Accumulated Deferred Income Tax Credits	2,165,735	2,165,735
	Customer Meter Deposits	669,926	669,926
<u>ADD:</u>			
11	Deferred Compensation	49,669	49,669
12	Cash Working Capital	-	-
13	Bad Debt	32,615	32,615
14	CIAC	11,735	11,735
15	Projected Capital Expenditures	-	-
16	Deferred Gain	3,062	3,062
17	Purchase Wastewater Treatment Charges	-	-
18	<b>Original Cost Rate Base</b>	<u>\$ 60,166,756</u>	<u>\$ 48,904,575</u>

References:

Column (A), Company Schedule B-2  
Column (B): Schedule GWB-4  
Column (C): Column (A) + Column (B)

SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY <u>AS FILED</u>	[B] Plant ADJ #1 <u>GWB-5</u>	[C] ICFA ADJ #2 (See Armstrong Testimony)	[D] STAFF <u>ADJUSTED</u>
<b><u>PLANT IN SERVICE:</u></b>						
1	353	Land and Land Rights	\$ 186,342	\$ -	\$ -	\$ 186,342
2	354	Structures and Improvements	22,916,934			22,916,934
3	355	Power Generation Equipment	361,096			361,096
4	360	Collection Sewers - Force	3,865,315			3,865,315
5	361	Collection Sewers - Gravity	47,785,285			47,785,285
6	363	Services to Customers	5,244,342			5,244,342
7	364	Flow Measuring Devices	23,636			23,636
8	370	Receiving Wells	1,921,877			1,921,877
9	371	Pumping Equipment	4,039,011			4,039,011
10	374	Reuse Distribution Reservoirs	34,021			34,021
11	375	Reuse Transmission and Distribution System	11,089,457			11,089,457
12	380	Treatment and Disposal Equipment	5,975,575			5,975,575
13	381	Plant Sewers	78,384			78,384
14	382	Outfall Sewer Lines	353,645			353,645
15	389	Other Plant and Miscellaneous Equipment	2,295,565			2,295,565
16	390	Office Furniture and Equipment	403,174			403,174
17	391	Transportation Equipment	173,522			173,522
18	393	Tools, Shop and Garage Equipment	114,250			114,250
19	394	Laboratory Equipment	24,941			24,941
20	395	Power Operated Equipment	41,148			41,148
21	396	Communication Equipment	76,238			76,238
22	397	Miscellaneous Equipment	369,323			369,323
23	398	Other Tangible Plant	2,414,565	(543,461)		1,871,104
32	<b>Total Plant in Service</b>		<u>109,787,648</u>	<u>(543,461)</u>	<u>-</u>	<u>109,244,187</u>
34	Accumulated Depreciation		(19,012,634)	-		(19,012,634)
35	Net Plant in Service		<u>\$ 90,775,014</u>	<u>\$ (543,461)</u>	<u>\$ -</u>	<u>\$ 90,231,553</u>
<b><u>LESS:</u></b>						
38	Net Contributions in Aid of Construction (CIAC)		\$ 30,362		\$ 12,714,970	\$ 12,745,332
39	Less: Accumulated Amortization		-		1,996,250	1,996,250
40	Net CIAC (L63 - L64)		30,362		10,718,720	10,749,082
41	Advances in Aid of Construction (AIAC)		27,839,315		-	27,839,315
42	Customer Meter Deposits		669,926			669,926
43	Accumulated Deferred Income Tax Credits		2,165,735			2,165,735
<b><u>ADD:</u></b>						
45	Deferred Tax Assets					
46	Deferred Tax Gain		3,062			3,062
47	Bad Debt		32,615			32,615
48	Deferred Compensation		49,669			49,669
49	CIAC		11,735			11,735
50	Working Capital		-			-
51	<b>Original Cost Rate Base</b>		<u>\$ 60,166,756</u>	<u>\$ (543,461)</u>	<u>\$ (10,718,720)</u>	<u>\$ 48,904,575</u>

Global Water-Palo Verde Sewer  
 Docket No. SW-20445A-12-0310  
 Test Year Ended December 31, 2011

Schedule GWB-5

RATE BASE ADJUSTMENT #1 POST TEST YEAR PLANT

LINE NO.	ACCT NO.	Description	[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	[C] STAFF AS ADJUSTED
1	398	Other Tangible Plant	543,461	(543,461)	-
<u>Disallowed PTYP</u>					
		PVUC Lagoon Clean Closure and Conversion	\$ 543,461		

References:

Column [A]: Disallowed Amount reflected in Acct. 348, PTYP, Per Co Schedule B-2.1  
 Column [B]: Col [C] less Col [A]  
 Column [C]: Per testimony GWB and Engineering testimony

OPERATING INCOME STATEMENT - TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF RECOMMENDED CHANGES	[E] STAFF RECOMMENDED
1	Flat Rate Revenue	12,423,785	-	12,423,785	149,593	12,573,378
2	Other Sewer Revenues	345,001	-	345,001	-	345,001
3	Metered Reuse Revenue	338,742	-	338,742	-	338,742
4	<b>Total Operating Revenues</b>	<b>\$ 13,107,528</b>	<b>\$ -</b>	<b>\$ 13,107,528</b>	<b>\$ 149,593</b>	<b>\$ 13,257,121</b>
5	701 Salary and Wages - Employees	\$ 1,472,381	\$ (223,764)	\$ 1,248,617	\$ -	\$ 1,248,617
6	704 Employee Pensions and Benefits	-	-	-	-	-
7	715 Purchased Power	530,509	-	530,509	-	530,509
8	716 Fuel for Power Production	-	-	-	-	-
9	718 Chemicals	408,431	0	408,431	-	408,431
10	720 Materials and Supplies	114,852	-	114,852	-	114,852
11	721 Office Expense	120,122	-	120,122	-	120,122
12	731 Contractual Services - Professional	901,541	(294,223)	607,319	-	607,319
13	735 Contractual Services - Testing	40,577	-	40,577	-	40,577
14	736 Contractual Services - Other	197,061	-	197,061	-	197,061
15	740 Rents	119,990	-	119,990	-	119,990
16	742 Rental of Equipment	-	-	-	-	-
17	750 Transportation Expense	76,568	-	76,568	-	76,568
18	755 Insurance Expense	102,147	-	102,147	-	102,147
19	759 Insurance - Other	-	-	-	-	-
20	765 Regulatory Commission Expenses	112,973	(59,828)	53,145	-	53,145
21	767 Rate Case Expense	-	-	-	-	-
22	770 Bad Debt Expense	82,936	49,450	132,386	1,511	133,897
23	775 Miscellaneous Expenses	485,686	-	485,686	-	485,686
24	403 Depreciation Expense	3,520,714	(476,171)	3,044,542	-	3,044,542
25	403 Depreciation Expense - CIAC /	(1,292)	-	(1,292)	-	(1,292)
26	408 Taxes Other Than Income	9,500	-	9,500	-	9,500
27	408.11 Taxes Other Than Income -	1,064,073	-	1,064,073	3,810	1,067,882
28	409 Income Taxes	682,693	491,345	1,174,037	\$ 55,688	\$ 1,229,725
29	<b>Total Operating Expenses</b>	<b>10,041,461</b>	<b>(513,191)</b>	<b>9,528,270</b>	<b>61,008</b>	<b>9,589,278</b>
30	<b>Operating Income (Loss)</b>	<b>\$ 3,066,067</b>	<b>\$ 513,191</b>	<b>\$ 3,579,258</b>	<b>\$ 88,585</b>	<b>\$ 3,667,843</b>

References:

- Column (A): Company Schedule C-1
- Column (B): Schedule GWB 11
- Column (C): Column (A) + Column (B)
- Column (D): Schedules GWB 2, Lines 29, 34 and 37
- Column (E): Column (C) + Column (D)

**SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR**

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Bad Debts Exp ADJ #1 GWB-12	[C] Rate Case Exp ADJ #2 GWB-13	[D] Expense Normalizations ADJ #3 GWB-14	[E] Deprec. Exp ADJ #4 GWB-15	[F] Income Taxes ADJ #5 GWB-16	[H] STAFF ADJUSTED
1	Flat Rate Revenue	\$ 12,423,785	-	-	-	-	-	\$ 12,423,785
2	Other Sewer Revenues	345,001	-	-	-	-	-	345,001
3	Metered Reuse Revenue	338,742	-	-	-	-	-	338,742
4	<b>Total Operating Revenues</b>	<b>\$ 13,107,528</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 13,107,528</b>
<b>Operating Expenses</b>								
5	701 Salary and Wages - Employees	1,472,381	-	-	\$ (223,764)	\$ -	-	1,248,617
6	704 Employee Pensions and Benefits	-	-	-	-	-	-	-
7	715 Purchased Power	530,509	-	-	-	-	-	530,509
8	716 Fuel for Power Production	-	-	-	-	-	-	-
9	718 Chemicals	408,431	-	-	0	-	-	408,431
10	720 Materials and Supplies	114,852	-	-	-	-	-	114,852
11	721 Office Expense	120,122	-	-	-	-	-	120,122
12	731 Contractual Services -- Professional	901,541	-	-	(294,223)	-	-	607,319
13	735 Contractual Services - Testing	40,577	-	-	-	-	-	40,577
14	736 Contractual Services - Other	197,061	-	-	-	-	-	197,061
14	740 Rents	119,990	-	-	-	-	-	119,990
15	742 Rental of Equipment	-	-	-	-	-	-	-
16	750 Transportation Expense	76,568	-	-	-	-	-	76,568
16	755 Insurance Expense	102,147	-	-	-	-	-	102,147
16	759 Insurance - Other	-	-	-	-	-	-	-
17	765 Regulatory Commission Expense	112,973	-	(59,828)	-	-	-	53,145
17	767 Rate Case Expense	-	-	-	-	-	-	-
18	770 Bad Debt Expense	-	-	-	-	-	-	-
18	775 Miscellaneous Expenses	82,936	49,450	-	-	-	-	132,386
19	403 Depreciation Expense	485,686	-	-	-	-	-	485,686
19	403 Depreciation Expense	3,520,714	-	-	-	(476,171)	-	3,044,542
19	403 Depreciation Expense -- CIAC Amortization	(1,292)	-	-	-	-	-	(1,292)
20	408 Taxes Other Than Income	9,500	-	-	-	-	-	9,500
20	408.11 Taxes Other Than Income - Property Taxes	1,064,073	-	-	-	-	-	1,064,073
21	409 Income Taxes	682,693	-	-	-	-	-	682,693
22	<b>Total Operating Expenses</b>	<b>\$ 10,041,461</b>	<b>\$ 49,450</b>	<b>\$ (59,828)</b>	<b>\$ (517,986)</b>	<b>\$ (476,171)</b>	<b>\$ 491,345</b>	<b>\$ 1,174,037</b>
23	<b>Operating Income (Loss)</b>	<b>\$ 3,066,067</b>	<b>\$ (49,450)</b>	<b>\$ 59,828</b>	<b>\$ 517,986</b>	<b>\$ 476,171</b>	<b>\$ (491,345)</b>	<b>\$ 3,579,258</b>



**OPERATING INCOME ADJUSTMENT #1 - BAD DEBT EXPENSE**

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF RECOMMENDED*
1		\$ 82,936	\$ 49,450	\$ 132,386

References:

Column (A), Company Workpapers

Column (B): Testimony GWB

Column (C): Column (A) + Column (B), Per Co Response  
to Staff DR 5.8

Adjusted Test Year Revenues (Sch C-2)	\$ 13,107,528
Bad Debt Expense Rate, per Staff	1.01%
Expected Bad Debt Expense	\$ 132,386
Co Proposed	\$ 82,936
	\$ 49,450

OPERATING INCOME ADJUSTMENT #2 - RATE CASE EXPENSE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF RECOMMENDED*						
1	See Note	\$ 112,973	\$ (59,828)	\$ 53,145						
<b>Company Proposed Rate Case Expense</b>										
		Total	Palo Verde	Santa Cruz	Town Division	Willow Valley	Tonopah	Buckeye	WUNS	
2	Allocation Percentages		39.86%	40.32%	13.45%	3.78%	0.82%	1.58%	0.19%	
3	Desert Mountain Analytical Services	\$ 122,063	\$ 48,652	\$ 49,218	\$ 16,420	\$ 4,616	\$ 996	\$ 1,927	\$ 234	
4	Insight Consulting, LLC	\$ 216,000	\$ 86,094	\$ 87,095	\$ 29,057	\$ 8,168	\$ 1,762	\$ 3,410	\$ 413	
5	Roshka Dewulf & Patten, PLC	\$ 370,303	\$ 147,597	\$ 149,313	\$ 49,814	\$ 14,004	\$ 3,021	\$ 5,846	\$ 709	
6	Ulmann & Company P C	\$ 78,809	\$ 31,412	\$ 31,777	\$ 10,802	\$ 2,980	\$ 643	\$ 1,244	\$ 151	
7	Total	\$ 787,174	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506	
8	Amortization over 3 years:									
9	Year 1	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,298	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502	
10	Year 2	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,298	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502	
11	Year 3	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,298	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502	
12	Totals	\$ 787,174	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506	
<b>Staff Recommended Rate Case Expense</b>										
13	Description	Total	Palo Verde	Santa Cruz	Town Division	Willow Valley	Tonopah	Buckeye	WUNS	
14	Staff Recommended Amount	\$ 400,000	\$ 159,434	\$ 161,287	\$ 53,809	\$ 15,127	\$ 3,263	\$ 6,315	\$ 765	
15	Amortization over 3 years:									
16	Year 1	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255	
17	Year 2	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255	
18	Year 3	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255	
19	Totals	\$ 400,000	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506	
20	Adjustment Total, by System	\$ (129,058)	\$ (51,441)	\$ (52,038)	\$ (17,361)	\$ (4,881)	\$ (1,053)	\$ (2,037)	\$ (247)	

For Palo Verde only, Staff notes a discrepancy between the \$112,973 on Co. Schedule C-1 and the \$104,585 per Company's supporting schedule and as shown above. Staff's adjustment effectively corrects this discrepancy.

**References:**

Column (A), Company Workpapers  
Column (B): Line 20 for respective system  
Column (C): Line 16 for respective system

**OPERATING INCOME ADJUSTMENT #3 - EXPENSE NORMALIZATIONS**

<u>LINE NO.</u>	<u>ACCT / DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED*</u>
1	701 Salary and Wages - Employees	\$ 1,472,381	\$ (223,764)	\$ 1,248,617
2	731 Contractual Services - Professional	\$ 901,541	\$ (294,223)	\$ 607,319
		<u>\$ 3,175,972</u>	<u>\$ (517,986)</u>	<u>\$ 2,657,986</u>

References:

Column (A), Company Workpapers  
Column (B): Testimony GWB  
Column (C): Column (A) + Column (B)

**OPERATING INCOME ADJUSTMENT #4 - DEPRECIATION EXPENSE**

LINE NO.	ACCT. NO.	DESCRIPTION	[A] PLANT BALANCE	[B] DEPRECIATION RATE	[C] DEPRECIATION EXPENSE
1		<u>PLANT IN SERVICE:</u>			
2	351	Organization Cost	-	0.00%	-
3	352	Franchise Cost	-	0.00%	-
4	353	Land and Land Rights	186,342	0.00%	-
5	354	Structures & Improvements	22,916,934	3.33%	763,134
6	355	Power Generating Equipment	361,096	5.00%	18,055
7	360	Collection Sewers - Force	3,865,315	2.00%	77,306
8	361	Collection Sewers - Gravity	47,785,285	2.00%	955,706
9	362	Special Collecting Structures		2.00%	-
10	363	Sevices to Customers	5,244,342	2.00%	104,887
11	364	Flow Measuring Devices	23,636	10.00%	2,364
12	365	Flow Measuring Installations		10.00%	-
13	366	Reuse Services		2.00%	-
14	367	Reuse Meters and Meter Installations		8.33%	-
15	370	Receiving Wells	1,921,877	3.33%	63,999
16	371	Pumping Equipment	4,039,011	12.50%	504,876
17	374	Reuse Distribution Reserviors	34,021	2.50%	851
18	375	Reuse Transmission and Dist. Sys.	11,089,457	2.50%	277,236
19	380	Treatment and Disposal Equipment	5,975,575	5.00%	298,779
20	381	Plant Sewers	78,384	5.00%	3,919
21	382	Outfall Sewer Lines	353,645	3.33%	11,776
22	389	Other Plant and Misc. Equipment	2,295,565	6.67%	153,114
23	390	Office Furniture & Equipment	403,174	6.67%	26,892
24	390.1	Computers & Software		20.00%	-
25	391	Transportation Equipment	173,522	20.00%	34,704
26	392	Stores Equipment		4.00%	-
27	393	Tools, Shop & Garage Equipment	114,250	5.00%	5,713
28	394	Laboratory Equipment	24,941	10.00%	2,494
29	395	Power Operated Equipment	41,148	5.00%	2,057
30	396	Communications Equipment	76,238	10.00%	7,624
31	397	Miscellaneous Equipment	369,323	10.00%	36,932
32	398	Other Tangible Plant	1,871,104	5.00%	93,555
33			109,244,187		3,445,973
34		Less: Non Depreciable Plant			
35		Land and Land Rights	\$ 186,342		
36		Net Depreciable Plant and Dep. Amount	\$ 109,057,845		\$ 3,445,973
37					
38					
39		Amortization of CIAC at Company's Rate	\$ 12,745,332	3.1598%	\$ 402,723
40		Staff Recommended Depreciation Expense			\$ 3,043,250
41		Company Proposed Depreciation Expense			\$ 3,519,422
42		Staff Adjustment			\$ (476,171)

<u>References:</u>	
Col [A]	Schedule GWB-4
Col [B]	Proposed Rates per Staff Engineering Report
Col [C]	Col [A] times Col [B]

Global Water-Palo Verde Sewer  
Docket No. SW-20445A-12-0310  
Test Year Ended December 31, 2011

Schedule GWB-17

**OPERATING INCOME ADJUSTMENT #5 - INCOME TAXES**

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED</u>
1	Income Taxes	<u>\$ 682,693</u>	<u>\$ 491,345</u>	<u>\$ 1,174,037</u>

References:

Column (A), Company Schedule C-2

Column (B): Testimony GWB

Column (C): Column (A) + Column (B),  
see also Sch. GWB-2, line 48

OPERATING INCOME ADJUSTMENT #6 - PROPERTY TAX EXPENSE GRCF COMPONENT

LINE NO.	DESCRIPTION	[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues - 2011	\$ 13,107,528	\$ 13,107,528
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	26,215,056	26,215,056
4	Staff Adjusted Test Year Revenues - 2011	13,107,528	
5	Staff Recommended Revenue		13,257,121
6	Subtotal (Line 4 + Line 5)	39,322,584	39,472,177
7	Number of Years	3	3
8	Three Year Average (Line 5 / Line 6)	13,107,528	13,157,392
9	Department of Revenue Multiplier	2	2
10	Revenue Base Value (Line 7 * Line 8)	26,215,056	26,314,785
11	Plus: 10% of CWIP	1,648,165	1,648,165
12	Less: Net Book Value of Licensed Vehicles	7,190	7,190
13	Full Cash Value (Line 10 + Line 11 - Line 12)	27,856,031	27,955,760
14	Assessment Ratio	21.0%	21.0%
15	Assessment Value (Line 13 * Line 14)	5,849,767	5,870,710
16	Composite Property Tax Rate	18.1900%	18.1900%
17	Staff Test Year Adjusted Property Tax Expense (Line 15 * Line 16)	\$ 1,064,073	
18	Company Proposed Property Tax	\$ 1,064,073	
19	Staff Test Year Adjustment (Line 17 - Line 18)	\$ 0	
20	Property Tax on Staff Recommended Revenue (Line 15 * Line 16)		\$ 1,067,882
21	Staff Test Year Adjusted Property Tax Expense (Line 17)		\$ 1,064,073
22	Increase in Property Tax Due to Increase in Revenue Requirement		\$ 3,810
23	Increase in Property Tax Due to Increase in Revenue Requirement (Line 22)		\$ 3,810
24	Increase in Revenue Requirement		\$ 149,593
25	Increase in Property Tax Per Dollar Increase in Revenue (Line 23 / Line 24)		2.54660%

REFERENCES:

Line 15: Composite Tax Rate, per Company  
Line 18: Company Schedule C-1, Line 36

**Global Water - Water Utility of Northern Scottsdale**  
Docket No. W-03720A-12-0311  
Test Year Ended December 31, 2011

**DIRECT TESTIMONY OF GERALD BECKER**

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GWB- 4	SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS
GWB- 5	NOT USED
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GWB- 18	OPERATING INCOME ADJUSTMENT #5 - PROPERTY TAX EXPENSE GRFC COMPONENT

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	(A) COMPANY ORIGINAL COST	(B) COMPANY FAIR VALUE	(C) STAFF ORIGINAL COST	(D) STAFF FAIR VALUE
1	Adjusted Rate Base	\$ (181,978)	\$ (181,978)	\$ (181,978)	\$ (181,978)
2	Adjusted Operating Income (Loss)	\$ 21,301	\$ 21,301	\$ 23,472	\$ 23,472
3	Current Rate of Return (L2 / L1)	N/A	N/A	N/A	N/A
4	Required Rate of Return	N/A	N/A	N/A	N/A
5	Required Operating Income (L4 * L1)	\$ 21,301	\$ 21,301	\$ 23,472	\$ 23,472
	Current Operating Margin (Sch.C.1)	14.44%	14.44%	15.91%	15.91%
6	Operating Income Deficiency (L5 - L2)	\$ -	\$ -	\$ -	\$ -
7	Gross Revenue Conversion Factor	1.629	1.629	1.629	1.629
8	Required Revenue Increase (L7 * L6)	\$ -	\$ -	\$ -	\$ -
9	Adjusted Test Year Revenue	\$ 147,513	\$ 147,513	\$ 147,513	\$ 147,513
10	Proposed Annual Revenue (L8 + L9)	\$ 147,513	\$ 147,513	\$ 147,513	\$ 147,513
11	Required Increase in Revenue (%)	0.00%	0.00%	0.00%	0.00%
12	Rate of Return on Common Equity (%)	10.00%	10.00%		

References:

Column (A): Company Schedule A-1  
Column (B): Company Schedule A-1  
Column (C): Company Schedules A-1, A-2, & D-1  
Column (D): Staff Schedules GWB-2, GWB-3, and GWB-10



GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)
<i>Calculation of Gross Revenue Conversion Factor:</i>				
1	Revenue	100.0000%		
2	Uncollectible Factor (Line 11)	0.06140%		
3	Revenues (L1 - L2)	99.9386%		
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	38.5989%		
5	Subtotal (L3 - L4)	60.7871%		
6	Revenue Conversion Factor (L1 / L5)	1.645086		
<i>Calculation of Uncollectible Factor:</i>				
7	Unity	100.0000%		
8	Combined Federal and State Tax Rate (Line 17)	38.5989%		
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%		
10	Uncollectible Rate	1.0000%		
11	Uncollectible Factor (L9 * L10)		0.61401%	
<i>Calculation of Effective Tax Rate:</i>				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%		
13	Arizona State Income Tax Rate	6.9680%		
14	Federal Taxable Income (L12 - L13)	93.0320%		
15	Applicable Federal Income Tax Rate (Line 44)	34.0000%		
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%		
17	Combined Federal and State Income Tax Rate (L13 + L16)		38.5989%	
<i>Calculation of Effective Property Tax Factor:</i>				
18	Unity		6.968%	
19	Combined Federal and State Income Tax Rate (L17)	100.0000%		
20	One Minus Combined Income Tax Rate (L18-L19)	6.9680%		
21	Property Tax Factor (GWB-18, L25)	93.0320%		
22	Effective Property Tax Factor (L20*L21)		0.0000%	
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			38.5989%
24	Required Operating Income (Schedule GWB-1, Line 5)	\$ 23,472		
25	Adjusted Test Year Operating Income (Loss) (Schedule GWB-10, Line 36)	\$ 23,472		
26	Required Increase in Operating Income (L24 - L25)	\$ -	\$ -	
27	Income Taxes on Recommended Revenue (Col. (C), L48)	\$ 43,548		
28	Income Taxes on Test Year Revenue (Col. (A), L48)	\$ 14,755		
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)	\$ 28,792	\$ 28,792	
30	Required Revenue Increase (Schedule GWB-1, Line 8)	\$ -		
31	Uncollectible Rate (Line 10)	1.0000%		
32	Uncollectible Expense on Recommended Revenue (L30 * L31)	\$ -		
33	Adjusted Test Year Uncollectible Expense - N/A	\$ -		
34	Required Increase in Revenue to Provide for Uncollectible Exp.	\$ -	\$ -	
35	Property Tax with Recommended Revenue (GWB-18, Line 21)	\$ 3,104		
36	Property Tax on Test Year Revenue (GWB-18, Col A, L19)	\$ 3,104		
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)	\$ -	\$ -	
38	Total Required Increase in Revenue (L26 + L29 + L34 + L37)	\$ 28,792		

	(A) Test Year	(B)	(C) Staff Recommended
<i>Calculation of Income Tax:</i>			
39	Revenue (Sch GWB-10, Col.(C) L4, GWB-1, Col. (D), L10)	\$ 147,513	\$ 147,513
40	Operating Expenses Excluding Income Taxes	\$ 109,286	\$ 34,692
41	Synchronized Interest (L53)	\$ -	\$ -
42	Arizona Taxable Income (L39 - L40 - L41)	\$ 38,228	\$ 112,821
43	Arizona State Income Tax Rate	6.9680%	6.9680%
44	Arizona Income Tax (L42 x L43)	\$ 2,664	\$ 7,861
45	Federal Taxable Income (L42 - L44)	\$ 35,564	\$ 104,960
46	Federal Tax	\$ 12,092	\$ 35,686
47	Total Federal Income Tax	\$ 12,092	\$ 35,686
48	Combined Federal and State Income Tax (L43 + L47)	\$ 14,755	\$ 43,548

50	Effective Tax Rate		
<i>Calculation of Interest Synchronization:</i>			
51	Rate Base (Schedule GWB-3, Col. (C), Line 18)	N/A	\$ (181,978)
52	Weighted Average Cost of Debt		0.0000%
53	Synchronized Interest (L50 X L51)		\$ -

**RATE BASE - ORIGINAL COST**

LINE NO.	(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	(C) STAFF AS ADJUSTED
1	Plant in Service	\$ 1,921,063	\$ 1,921,063
2	Less: Accumulated Depreciation	(424,824)	(424,824)
3	Net Plant in Service	<u>\$ 1,496,239</u>	<u>\$ 1,496,239</u>
<u>LESS:</u>			
4	Contributions in Aid of Construction (CIAC) \$	-	\$ -
5	Less: Accumulated Amortization	-	-
6	Net CIAC	-	-
7	Advances in Aid of Construction (AIAC)	1,824,411	1,824,411
8	Imputed Reg AIAC	-	-
9	Imputed Reg CIAC	-	-
10	Accumulated Deferred Income Tax Credits	-	-
	Customer Meter Deposits	10,765	10,765
<u>ADD:</u>			
11	Accumulated Deferred Income Tax Debits	9,246	9,246
12	Cash Working Capital	483	483
13	Deferred Compensation	232	232
14	CIAC	-	-
15	Fixed Asset Depreciation	146,998	146,998
16	Deferred Debits	-	-
17	Purchase Wastewater Treatment Charges	-	-
18	<b>Original Cost Rate Base</b>	<u>\$ (181,978)</u>	<u>\$ (181,978)</u>

References:

Column (A), Company Schedule B-2  
Column (B): Schedule GWB-4  
Column (C): Column (A) + Column (B)

**SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS**

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Reclassifications ADJ #1 Per Testimony	[I] STAFF ADJUSTED	
<u>PLANT IN SERVICE:</u>						
1	303	Land and Land Rights	\$ 30,374	\$ -	\$ 30,374	
2	304	Structures and Improvements	20,000		20,000	
3	307	Wells and Springs	130,000		130,000	
4	309	Supply Mains	-		-	
5	310	Power Generation Equipment	-		-	
6	311	Pumping Equipment	216,158		216,158	
7	320	Water Treatment Equipment	377	(377)	0	
8	320.1	Water Treatment Plant		377	377	
9	320.2	Solution Chemical Feeders			-	
10	330	Distribution Reservoirs and Standpipes	182,972	(182,972)	0	
11	330.1	Storage Tanks		182,972	182,972	
12	330.2	Pressure Tanks			-	
13	331	Transmission and Distribution Mains	1,155,497		1,155,497	
14	333	Services	60,047		60,047	
15	334	Meters and Meter Installations	11,303		11,303	
16	335	Hydrants	108,312		108,312	
17	336	Backflow Prevention Devices	775		775	
18	339	Other Plant and Miscellaneous Equipment	2,390		2,390	
19	340	Office Furniture and Equipment	-		-	
20	341	Transportation Equipment	-		-	
21	343	Tools, Shop and Garage Equipment	515		515	
22	344	Laboratory Equipment	-		-	
23	345	Power Operated Equipment	-		-	
24	346	Communication Equipment	-		-	
25	347	Miscellaneous Equipment	-		-	
26	348	Other Tangible Plant	-		-	
27	390	Office Furniture & Equipment	2,343		2,343	
28	<b>Total Plant in Service</b>		<u>1,921,063</u>	<u>-</u>	<u>1,921,063</u>	
29	Accumulated Depreciation		(424,824)	-	(424,824)	
30	Net Plant in Service		<u>\$ 1,496,239</u>	<u>\$ -</u>	<u>1,496,239</u>	
31						
32						
33	<u>LESS:</u>					
34	Contributions in Aid of Construction (CIAC)		\$ -		\$ -	
35	Less: Accumulated Amortization		-	-	-	
36	Net CIAC (L63 - L64)		-	-	-	
37	Advances in Aid of Construction (AIAC)		1,824,411	-	1,824,411	
38	Customer Meter Deposits		10,765		10,765	
39	<u>ADD:</u>					
40	Meter deposits		9,246		9,246	
41	Bad Debt		483		483	
42	Deferred Compensation		232	-	232	
43	CIAC		-	-	-	
44	Fixed asset depreciation		146,998	-	146,998	
45	Prepayments			-	-	
46						
47						
48						
49						
50						
51	<b>Original Cost Rate Base</b>		<u>\$ (181,978)</u>	<u>\$ -</u>	<u>\$ (181,978)</u>	

OPERATING INCOME STATEMENT - TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF RECOMMENDED CHANGES	[E] STAFF RECOMMENDED
		\$ -	\$ -	\$ -	\$ -	\$ -
1	Metered Water Sales	145,963	-	145,963	-	145,963
2	Water Sales - Unmetered	-	-	-	-	-
3	Other Operating Revenue	1,550	-	1,550	-	1,550
4	<b>Total Operating Revenues</b>	<u>\$ 147,513</u>	<u>\$ -</u>	<u>\$ 147,513</u>	<u>\$ -</u>	<u>\$ 147,513</u>
5	601 Salary and Wages - Employees	\$ 19,787	\$ -	\$ 19,787	\$ -	\$ 19,787
6	604 Employee Pensions and Benefits	-	-	-	-	-
7	610 Purchased Water	-	-	-	-	-
8	615 Purchased Power	10,050	-	10,050	-	10,050
9	616 Fuel for Power Production	-	-	-	-	-
10	618 Chemicals	1,286	-	1,286	-	1,286
11	620 Materials and Supplies	(779)	-	(779)	-	(779)
12	620.08 Materials and Supplies	-	-	-	-	-
13	621 Office Supplies and Expense	1,494	-	1,494	-	1,494
14	630 Outside Services	4,483	-	4,483	-	4,483
15	635 Contractual Services - Testing	728	-	728	-	728
16	636 Contractual Services - Other	-	-	-	-	-
17	641 Rental of Building/Real Property	504	-	504	-	504
18	642 Rental of Equipment	-	-	-	-	-
19	650 Transportation Expenses	1,508	-	1,508	-	1,508
20	657 Insurance - General Liability	475	-	475	-	475
21	659 Insurance - Other	664	-	664	-	664
22	660 Advertising Expense	-	-	-	-	-
23	666 Regulatory Commission Expense - Rat	502	-	502	-	502
24	667 Rate Case Expense	-	(247)	(247)	-	(247)
25	670 Bad Debt Expense	-	1,003	1,003	-	1,003
26	675 Miscellaneous Expenses	4,137	-	4,137	-	4,137
27	403 Depreciation Expense	64,552	(4,292)	60,260	-	60,260
28	403 Depreciation Expense - CIAC Amortiza	326	-	326	-	326
29	408 Taxes Other Than Income	3,104	-	3,104	-	3,104
30	408.11 Property Taxes	-	-	-	-	-
31	409 Income Taxes	13,391	1,365	14,755	-	14,755
32	<b>Total Operating Expenses</b>	<u>126,212</u>	<u>(2,171)</u>	<u>124,041</u>	<u>-</u>	<u>124,041</u>
33	<b>Operating Income (Loss)</b>	<u>\$ 21,301</u>	<u>\$ 2,171</u>	<u>\$ 23,472</u>	<u>\$ -</u>	<u>\$ 23,472</u>

References:

Column (A): Company Schedule C-1  
Column (B): Schedule GWB 11  
Column (C): Column (A) + Column (B)  
Column (D): Schedules GWB 2, Lines 29, 34 and 37  
Column (E): Column (C) + Column (D)

SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Bad Debts Exp ADJ #1 GWB-12	[D] Rate Case Exp ADJ #2 GWB-14	[C] Deprec. Exp ADJ #3 GWB-16	[F] Income Taxes ADJ #4 GWB-17	[H] STAFF ADJUSTED
<b>Revenues</b>							
1	Metered Water Sales	145,963	-	-	-	-	145,963
2	Water Sales - Unmetered	-	-	-	-	-	-
3	Other Operating Revenue	1,550	-	-	-	-	1,550
4	Total Operating Revenues	\$ 147,513	\$ -	\$ -	\$ -	\$ -	\$ 147,513
<b>Operating Expenses</b>							
5	601 Salary and Wages - Employee	19,787	\$ -	\$ -	\$ -	\$ -	19,787
6	604 Employee Pensions and Benefi	-	-	-	-	-	-
7	610 Purchased Water	-	-	-	-	-	-
8	615 Purchased Power	10,050	-	-	-	-	10,050
9	616 Fuel for Power Production	-	-	-	-	-	-
10	618 Chemicals	1,286	-	-	-	-	1,286
11	620 Materials and Supplies	(779)	-	-	-	-	(779)
12	620.08 Materials and Supplies	-	-	-	-	-	-
13	621 Office Supplies and Expense	1,494	-	-	-	-	1,494
14	630 Outside Services	4,483	-	-	-	-	4,483
15	635 Contractual Services - Testing	728	-	-	-	-	728
16	636 Contractual Services - Other	-	-	-	-	-	-
17	641 Rental of Building/Real Propert	504	-	-	-	-	504
18	642 Rental of Equipment	-	-	-	-	-	-
19	650 Transportation Expenses	1,508	-	-	-	-	1,508
20	657 Insurance - General Liability	475	-	-	-	-	475
21	659 Insurance - Other	664	-	-	-	-	664
22	660 Advertising Expense	-	-	-	-	-	-
23	666 Regulatory Commission Expen	502	-	-	-	-	502
24	667 Rate Case Expense	-	-	(247)	-	-	(247)
25	670 Bad Debt Expense	-	1,003	-	-	-	1,003
26	675 Miscellaneous Expenses	4,137	-	-	-	-	4,137
27	403 Depreciation Expense	64,552	-	-	(4,292)	-	60,260
28	403 Depreciation Expense - CIAC /	326	-	-	-	-	326
29	408 Taxes Other Than Income	3,104	-	-	-	-	3,104
30	408.11 Property Taxes	-	-	-	-	-	-
31	409 Income Taxes	13,391	-	-	-	1,365	14,755
32	Total Operating Expenses	\$ 126,212	\$ 1,003	\$ (247)	\$ (4,292)	\$ 1,365	\$ 124,041
33	Operating Income	\$ 21,301	\$ (1,003)	\$ 247	\$ 4,292	\$ (1,365)	\$ 23,472

**OPERATING INCOME ADJUSTMENT #1 - BAD DEBT EXPENSE**

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF RECOMMENDED*
1		\$ -	\$ 1,003	\$ 1,003

References:

Column (A), Company Workpapers

Column (B): Testimony GWB

Column (C): Column (A) + Column (B), Per Co Response  
 to Staff DR 5.8

Adjusted Test Year Revenues (Sch C-2)	\$ 147,513
Bad Debt Expense Rate, per Staff	0.68%
Expected Bad Debt Expense	\$ 1,003
Co Proposed	\$ -
	\$ (1,003)

OPERATING INCOME ADJUSTMENT #2 - RATE CASE EXPENSE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF RECOMMENDED						
1		\$ 502	\$ (247)	\$ 255						
<b>Company Proposed Rate Case Expense</b>										
		Total	Palo Verde	Santa Cruz	Town Division	Willow Valley	Tonopah	Buckeye	WUNS	
2	Allocation Percentages		39.86%	40.32%	13.45%	3.78%	0.82%	1.58%	0.19%	
3	Desert Mountain Analytical Services	\$ 122,063	\$ 48,852	\$ 49,218	\$ 16,420	\$ 4,816	\$ 996	\$ 1,927	\$ 234	
4	Insight Consulting, LLC	\$ 216,000	\$ 86,064	\$ 87,095	\$ 29,057	\$ 8,168	\$ 1,762	\$ 3,410	\$ 413	
5	Roshka Dewulf & Patten, PLC	\$ 370,303	\$ 147,597	\$ 149,313	\$ 49,814	\$ 14,004	\$ 3,021	\$ 5,848	\$ 709	
6	Ullmann & Company P C	\$ 78,809	\$ 31,412	\$ 31,777	\$ 10,602	\$ 2,880	\$ 643	\$ 1,244	\$ 151	
7	Totals	\$ 787,174	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506	
8	Amortization over 3 years:									
9	Year 1	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,298	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502	
10	Year 2	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,298	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502	
11	Year 3	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,298	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502	
12	Totals	\$ 787,174	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506	
<b>Staff Recommended Rate Case Expense</b>										
13	Description	Total	Palo Verde	Santa Cruz	Town Division	Willow Valley	Tonopah	Buckeye	WUNS	
14	Staff Recommended Amount	\$ 400,000	\$ 159,434	\$ 161,287	\$ 53,809	\$ 15,127	\$ 3,263	\$ 6,315	\$ 765	
15	Amortization:									
16	Year 1	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255	
17	Year 2	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255	
18	Year 3	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255	
19	Totals	\$ 400,000	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506	
20	Adjustment Total, by System	\$ (129,058)	\$ (51,441)	\$ (52,036)	\$ (17,361)	\$ (4,881)	\$ (1,053)	\$ (2,037)	\$ (247)	

References:  
Column (A), Company Workpapers  
Column (B): Line 20 for respective system  
Column (C): Line 16 for respective system

OPERATING INCOME ADJUSTMENT #3 - DEPRECIATION EXPENSE

LINE NO.	ACCT. NO.	DESCRIPTION	[A] PLANT BALANCE	[B] DEPRECIATION RATE	[C] DEPRECIATION EXPENSE
<u>PLANT IN SERVICE:</u>					
1	303	Land and Land Rights	\$ 30,374	0.00%	-
2	304	Structures and Improvements	\$ 20,000	3.33%	666
3	307	Wells and Springs	\$ 130,000	3.33%	4,329
4	309	Supply Mains	\$ -	2.00%	-
5	310	Power Generation Equipment	\$ -	5.00%	-
6	311	Pumping Equipment	\$ 216,158	12.50%	27,020
7	320	Water Treatment Equipment	\$ 0	0.00%	-
8	320.1	Water Treatment Plant	\$ 377	-	-
9	320.1	Solution Chemical Feeders	\$ -	3.33%	-
10	320.2	Distribution Reservoirs and Standpipes	\$ 0	20.00%	0
11	330	Storage Tanks	\$ 182,972	-	-
12	330.1	Pressure Tanks	\$ -	2.22%	-
13	331	Transmission and Distribution Mains	\$ 1,155,497	2.00%	23,110
14	333	Services	\$ 60,047	3.33%	2,000
15	334	Meters and Meter Installations	\$ 11,303	8.33%	942
16	335	Hydrants	\$ 108,312	2.00%	2,166
17	336	Backflow Prevention Devices	\$ 775	6.67%	52
18	339	Other Plant and Miscellaneous Equipment	\$ 2,390	6.67%	159
19	340	Office Furniture and Equipment	\$ -	6.67%	-
20	341	Transportation Equipment	\$ -	20.00%	-
21	343	Tools, Shop and Garage Equipment	\$ 515	5.00%	26
22	344	Laboratory Equipment	\$ -	10.00%	-
23	345	Power Operated Equipment	\$ -	5.00%	-
24	346	Communication Equipment	\$ -	10.00%	-
25	347	Miscellaneous Equipment	\$ -	10.00%	-
26	348	Other Tangible Plant	\$ -	5.00%	-
27	390	Office Furniture & Equipment	\$ 2,343	5.00%	117
28			<u>1,921,063</u>		<u>60,586</u>
29		Less: Non Depreciable Plant			
30		Land and Land Rights	\$ 30,374		
31		Net Depreciable Plant and Depreciation Amounts	\$ 1,890,689		\$ 60,586
32					
33					
34		Amortization of CIAC at Company's Rate	\$ -	3.2044%	\$ -
35		Staff Recommended Depreciation Expense			\$ 60,586
36		Company Proposed Depreciation Expense			\$ 64,878
37		Staff Adjustment			\$ (4,292)
38					

<u>References:</u>	
Col [A]	Schedule GWB-4
Col [B]	Proposed Rates per Staff Engineering Report
Col [C]	Col [A] times Col [B]



Global Water - Water Utility of Northern Scottsdale  
Docket No. W-03720A-12-0311  
Test Year Ended December 31, 2011

Schedule GWB-17

**OPERATING INCOME ADJUSTMENT #4 - INCOME TAXES**

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED</u>
1	Income Taxes	<u>\$ 13,391</u>	<u>\$ 1,365</u>	<u>\$ 14,755</u>

References:

Column (A), Company Schedule C-2  
Column (B): Testimony GWB  
Column (C): Column (A) + Column (B),  
see also Sch. GWB-2, line 48

OPERATING INCOME ADJUSTMENT #5 - PROPERTY TAX EXPENSE GRCF COMPONENT

LINE NO.	DESCRIPTION	[A]	[B]
		STAFF AS ADJUSTED	STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues - 2011	\$ 147,513	\$ 147,513
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	295,027	295,027
4	Staff Adjusted Test Year Revenues - 2011	147,513	
5	Staff Recommended Revenue		147,513
6	Subtotal (Line 4 + Line 5)	442,540	442,540
7	Number of Years	3	3
8	Three Year Average (Line 5 / Line 6)	147,513	147,513
9	Department of Revenue Multiplier	2	2
10	Revenue Base Value (Line 7 * Line 8)	295,027	295,027
11	Plus: 10% of CWIP	-	-
12	Less: Net Book Value of Licensed Vehicles	-	-
13	Full Cash Value (Line 10 + Line 11 - Line 12)	295,027	295,027
14	Assessment Ratio	21.0%	21.0%
15	Assessment Value (Line 13 * Line 14)	61,956	61,956
16	Composite Property Tax Rate	5.0100%	5.0100%
17	Staff Test Year Adjusted Property Tax Expense (Line 15 * Line 16)	\$ 3,104	
18	Company Proposed Property Tax	\$ 3,104	
19	Staff Test Year Adjustment (Line 17 - Line 18)	\$ -	
20	Property Tax on Staff Recommended Revenue (Line 15 * Line 16)		\$ 3,104
21	Staff Test Year Adjusted Property Tax Expense (Line 17)		\$ 3,104
22	Increase in Property Tax Due to Increase in Revenue Requirement		\$ -
23	Increase in Property Tax Due to Increase in Revenue Requirement (Line 22)		\$ -
24	Increase in Revenue Requirement		\$ -
25	Increase in Property Tax Per Dollar Increase in Revenue (Line 23 / Line 24)		

REFERENCES:

Line 15: Composite Tax Rate, per Company  
Line 18: Company Schedule C-1, Line 36

**Water Utility of Greater Tonopah, Inc.**

W-02450A-12-0312

Test Year Ended December 31, 2011

**DIRECT TESTIMONY OF GERALD BECKER**

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GWB- 2	GROSS REVENUE CONVERSION FACTOR
GWB- 3	RATE BASE - ORIGINAL COST
GWB- 4	SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS
GWB- 5	NOT USED
GWB- 6	NOT USED
GWB- 7	NOT USED
GWB- 8	NOT USED
GWB- 9	NOT USED
GWB- 10	OPERATING INCOME STATEMENT - TEST YEAR AND STAFF RECOMMENDED
GWB- 11	SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR
GWB- 12	OPERATING INCOME ADJUSTMENT #1 - EXCESS WATER LOSS
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GWB- 17	OPERATING INCOME ADJUSTMENT #5 - INCOME TAXES
GWB- 18	OPERATING INCOME ADJUSTMENT #6 - PROPERTY TAX EXPENSE GRCF COMPONENT

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	(A) COMPANY ORIGINAL COST	(B) COMPANY FAIR VALUE	(C) STAFF ORIGINAL COST	(D) STAFF FAIR VALUE
1	Adjusted Rate Base	\$ 2,206,816	\$ 2,206,816	\$ (259,561)	\$ (259,561)
2	Adjusted Operating Income (Loss)	\$ (175,170)	\$ (175,170)	\$ (78,593)	\$ (78,593)
3	Current Rate of Return (L2 / L1)	-7.94%	-7.94%	30.28%	30.28%
4	Required Rate of Return or Operating Margin	10.72%	10.72%	10.00%	10.00%
5	Required Operating Income (L4 * L1)	\$ 236,637	\$ 236,637	\$ 40,786	\$ 40,786
6	Operating Income Deficiency (L5 - L2)	\$ 411,807	\$ 411,807	\$ 119,379	\$ 119,379
7	Gross Revenue Conversion Factor	1.6451	1.6451	1.6752	1.6752
8	Required Revenue Increase (L7 * L6)	\$ 677,458	\$ 677,458	<b>\$ 199,983</b>	<b>\$ 199,983</b>
9	Adjusted Test Year Revenue	\$ 207,705	\$ 207,705	\$ 207,705	\$ 207,705
10	Proposed Annual Revenue (L8 + L9)	\$ 885,163	\$ 885,163	\$ 407,689	\$ 407,689
11	Required Increase in Revenue (%)	326.16%	326.16%	96.28%	96.28%
12	Rate of Return on Common Equity (%)	11.44%	11.44%	9.40%	9.40%

References:

Column (A): Company Schedule A-1  
Column (B): Company Schedule A-1  
Column (C): Company Schedules A-1, A-2, & D-1  
Column (C): Staff Schedules GWB-2, GWB-3, and GWB-10

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)																																																																								
<u>Calculation of Gross Revenue Conversion Factor:</u>																																																																												
1	Revenue	100.0000%																																																																										
2	Uncollectible Factor (Line 11)	0.6570%																																																																										
3	Revenues (L1 - L2)	99.3430%																																																																										
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	39.6485%																																																																										
5	Subtotal (L3 - L4)	59.6945%																																																																										
6	Revenue Conversion Factor (L1 / L5)	1.675195																																																																										
<u>Calculation of Uncollectible Factor:</u>																																																																												
7	Unity	100.0000%																																																																										
8	Combined Federal and State Tax Rate (Line 17)	38.5989%																																																																										
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%																																																																										
10	Uncollectible Rate	1.0700%																																																																										
11	Uncollectible Factor (L9 * L10)		0.6570%																																																																									
<u>Calculation of Effective Tax Rate:</u>																																																																												
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%																																																																										
13	Arizona State Income Tax Rate	6.9680%																																																																										
14	Federal Taxable Income (L12 - L13)	93.0320%																																																																										
15	Applicable Federal Income Tax Rate (Line 44)	34.0000%																																																																										
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%																																																																										
17	Combined Federal and State Income Tax Rate (L13 + L16)		38.5989%																																																																									
<u>Calculation of Effective Property Tax Factor</u>																																																																												
18	Unity	100.0000%																																																																										
19	Combined Federal and State Income Tax Rate (L17)	38.5989%																																																																										
20	One Minus Combined Income Tax Rate (L18-L19)	61.4011%																																																																										
21	Property Tax Factor (GWB-18, L25)	1.7094%																																																																										
22	Effective Property Tax Factor (L20*L21)		1.0496%																																																																									
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			39.6485%																																																																								
24	Required Operating Income (Schedule GWB-1, Line 5)	\$ 40,786																																																																										
25	Adjusted Test Year Operating Income (Loss) (Schedule GWB-10, Line 36)	\$ (78,593)																																																																										
26	Required Increase in Operating Income (L24 - L25)		\$ 119,379																																																																									
27	Income Taxes on Recommended Revenue (Col. (C), L48)	\$ 31,350																																																																										
28	Income Taxes on Test Year Revenue (Col. (A), L48)	\$ (43,696)																																																																										
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		\$ 75,046																																																																									
30	Required Revenue Increase (Schedule GWB-1, Line 8)	\$ 199,983																																																																										
31	Uncollectible Rate (Line 10)	1.0700%																																																																										
32	Uncollectible Expense on Recommended Revenue (L30 * L31)	\$ 2,140																																																																										
33	Adjusted Test Year Uncollectible Expense - N/A	\$ -																																																																										
34	Required Increase in Revenue to Provide for Uncollectible Exp.		\$ 2,140																																																																									
35	Property Tax with Recommended Revenue (GWB-18, Line 21)	\$ 14,673																																																																										
36	Property Tax on Test Year Revenue (GWB-18, Col A, L19)	\$ 11,254																																																																										
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		\$ 3,419																																																																									
38	Total Required Increase in Revenue (L26 + L29 + L34+ L37)		\$ 199,983																																																																									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>(A) Test Year</th> <th>(B)</th> <th>(C) Staff Recommended</th> </tr> </thead> <tbody> <tr> <td colspan="4"><u>Calculation of Income Tax:</u></td> </tr> <tr> <td>39</td> <td>Revenue (Sch GWB-10, Col.(C) L4, GWB-1, Col. (D), L10)</td> <td>\$ 207,705</td> <td>\$ 407,689</td> </tr> <tr> <td>40</td> <td>Operating Expenses Excluding Income Taxes</td> <td>\$ 329,994</td> <td>\$ 335,553</td> </tr> <tr> <td>41</td> <td>Synchronized Interest (L53)</td> <td>\$ (9,085)</td> <td>\$ (9,085)</td> </tr> <tr> <td>42</td> <td>Arizona Taxable Income (L39 - L40 - L41)</td> <td>\$ (113,204)</td> <td>\$ 81,221</td> </tr> <tr> <td>43</td> <td>Arizona State Income Tax Rate</td> <td>6.9680%</td> <td>6.9680%</td> </tr> <tr> <td>44</td> <td>Arizona Income Tax (L42 x L43)</td> <td>\$ (7,888)</td> <td>\$ 5,659</td> </tr> <tr> <td>45</td> <td>Federal Taxable Income (L42 - L44)</td> <td>\$ (105,316)</td> <td>\$ 75,561</td> </tr> <tr> <td>46</td> <td>Federal Tax</td> <td>\$ (35,808)</td> <td>\$ 25,691</td> </tr> <tr> <td>47</td> <td>Total Federal Income Tax</td> <td>\$ (35,808)</td> <td>\$ 25,691</td> </tr> <tr> <td>48</td> <td>Combined Federal and State Income Tax (L43 + L47)</td> <td>\$ (43,696)</td> <td>\$ 31,350</td> </tr> <tr> <td>50</td> <td>Effective Tax Rate</td> <td></td> <td></td> </tr> <tr> <td colspan="4"><u>Calculation of Interest Synchronization:</u></td> </tr> <tr> <td>51</td> <td>Rate Base (Schedule GWB-3, Col. (C), Line 18)</td> <td></td> <td>N/A</td> </tr> <tr> <td>52</td> <td>Weighted Average Cost of Debt</td> <td></td> <td>\$ (259,561)</td> </tr> <tr> <td>53</td> <td>Synchronized Interest (L50 X L51)</td> <td></td> <td>3.50%</td> </tr> <tr> <td></td> <td></td> <td></td> <td>\$ (9,085)</td> </tr> </tbody> </table>						(A) Test Year	(B)	(C) Staff Recommended	<u>Calculation of Income Tax:</u>				39	Revenue (Sch GWB-10, Col.(C) L4, GWB-1, Col. (D), L10)	\$ 207,705	\$ 407,689	40	Operating Expenses Excluding Income Taxes	\$ 329,994	\$ 335,553	41	Synchronized Interest (L53)	\$ (9,085)	\$ (9,085)	42	Arizona Taxable Income (L39 - L40 - L41)	\$ (113,204)	\$ 81,221	43	Arizona State Income Tax Rate	6.9680%	6.9680%	44	Arizona Income Tax (L42 x L43)	\$ (7,888)	\$ 5,659	45	Federal Taxable Income (L42 - L44)	\$ (105,316)	\$ 75,561	46	Federal Tax	\$ (35,808)	\$ 25,691	47	Total Federal Income Tax	\$ (35,808)	\$ 25,691	48	Combined Federal and State Income Tax (L43 + L47)	\$ (43,696)	\$ 31,350	50	Effective Tax Rate			<u>Calculation of Interest Synchronization:</u>				51	Rate Base (Schedule GWB-3, Col. (C), Line 18)		N/A	52	Weighted Average Cost of Debt		\$ (259,561)	53	Synchronized Interest (L50 X L51)		3.50%				\$ (9,085)
	(A) Test Year	(B)	(C) Staff Recommended																																																																									
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53	Synchronized Interest (L50 X L51)		3.50%																																																																									
			\$ (9,085)																																																																									

**RATE BASE - ORIGINAL COST**

LINE NO.	(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	(C) STAFF AS ADJUSTED
1	Plant in Service	\$ 5,766,393	\$ 5,766,394
2	Less: Accumulated Depreciation	1,863,416	1,863,416
3	Net Plant in Service	<u>\$ 3,902,977</u>	<u>\$ 3,902,978</u>
<u>LESS:</u>			
4	Contributions in Aid of Construction (CIAC)	\$ 73,118	\$ 3,388,142
5	Less: Accumulated Amortization	13,653	862,299
6	Net CIAC	<u>59,465</u>	<u>2,525,843</u>
7	Advances in Aid of Construction (AIAC)	1,619,985	1,619,985
8	Imputed Reg AIAC	-	-
9	Imputed Reg CIAC	-	-
10	Accumulated Deferred Income Tax Credits	27,797	27,797
	Customer Meter Deposits	22,030	22,030
<u>ADD:</u>			
11	Accumulated Deferred Income Tax Debits	33,116	33,116
12	Cash Working Capital	-	-
13	Prepayments	-	-
14	Supplies Inventory	-	-
15	Projected Capital Expenditures	-	-
16	Deferred Debits	-	-
17	Purchase Wastewater Treatment Charges	-	-
18	<b>Original Cost Rate Base</b>	<u>\$ 2,206,816</u>	<u>\$ (259,561)</u>

References:

Column (A), Company Schedule B-2  
Column (B): Schedule GWB-4  
Column (C): Column (A) + Column (B)

SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Per Testimony ADJ #1 GWB-5	[C] Per Armstrong Testimony ADJ #2 GWB-6	[I] STAFF ADJUSTED
<i>PLANT IN SERVICE:</i>						
1	303	Land and Land Rights	\$ 177,430	\$ -	\$ -	\$ 177,430
2	304	Structures and Improvements	47,677			47,677
3	307	Wells and Springs	299,601			299,601
4	309	Supply Mains	-			-
5	310	Power Generation Equipment	-			-
6	311	Pumping Equipment	1,787,637			1,787,637
7	320	Water Treatment Equipment	1,626,520	(1,626,520)		0
	320.1	Water Treatment Plant		1,625,072		1,625,072
	320.2	Solution Chemical Feeders		1,448		1,448
8	330	Distribution Reservoirs and Standpipes	228,655	(228,655)		-
	330.1	Storage Tanks		103,612		103,612
	330.2	Pressure Tanks		125,043		125,043
9	331	Transmission and Distribution Mains	890,943			890,943
10	333	Services	43,069			43,069
11	334	Meters and Meter Installations	147,178			147,178
12	335	Hydrants	38,386			38,386
13	336	Backflow Prevention Devices	5,894			5,894
14	339	Other Plant and Miscellaneous Equipment	5,427			5,427
15	340	Office Furniture and Equipment	-			-
16	341	Transportation Equipment	-			-
17	343	Tools, Shop and Garage Equipment	1,977			1,977
18	344	Laboratory Equipment	663			663
19	345	Power Operated Equipment	838			838
20	346	Communication Equipment	12,408			12,408
21	347	Miscellaneous Equipment	5,210			5,210
22	348	Other Tangible Plant	446,880			446,880
23	<b>Total Plant in Service</b>		<b>5,766,393</b>	<b>0</b>	<b>-</b>	<b>5,766,394</b>
24						
25	Accumulated Depreciation		1,863,416	-		1,863,416
26	Net Plant in Service		\$ 3,902,977	\$ 0	\$ -	\$ 3,902,978
27						
28	<i>LESS:</i>					
29	Contributions in Aid of Construction (CIAC)		\$ 73,118		\$ 3,315,024	\$ 3,388,142
30	Less: Accumulated Amortization		13,653		848,646	862,299
31	Net CIAC (L63 - L64)		59,465	-	2,466,378	2,525,843
32	Advances in Aid of Construction (AIAC)		1,619,985	-	-	1,619,985
33	Imputed Reg Advances		-	-	-	-
34	Imputed Reg CIAC		-	-	-	-
35	Accumulated Deferred Income Tax Credits		27,797			27,797
36	Customer Meter Deposits		22,030			22,030
37	<i>ADD:</i>					
38	Accumulated Deferred Income Tax Debits		33,116			33,116
39	Working Capital Allowance					-
40	<b>Original Cost Rate Base</b>		<b>\$ 2,206,816</b>	<b>\$ 0</b>	<b>\$ (2,466,378)</b>	<b>\$ (259,561)</b>

OPERATING INCOME STATEMENT - TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	(A) COMPANY TEST YEAR AS FILED	(B) STAFF TEST YEAR ADJUSTMENTS	(C) STAFF TEST YEAR AS ADJUSTED	(D) STAFF RECOMMENDED CHANGES	(E) STAFF RECOMMENDED
1	461 Metered Water Revenue	\$ -	\$ -	\$ -	\$ 199,983	\$ 199,983
2	460 Unmetered Water Revenue	202,202	-	202,202	-	202,202
3	474 Other Water Revenues	5,503	-	5,503	-	5,503
4	<b>Total Operating Revenues</b>	<b>\$ 207,705</b>	<b>\$ -</b>	<b>\$ 207,705</b>	<b>\$ 199,983</b>	<b>\$ 407,689</b>
5	601 Salary and Wages - Employees	\$ 75,753	\$ -	\$ 75,753	\$ -	\$ 75,753
6	610 Purchased Water	960	-	960	-	960
7	615 Purchased Power	22,407	(878)	21,529	-	21,529
8	618 Chemicals	10,522	(412)	10,110	-	10,110
9	620 Materials and Supplies	20,175	-	20,175	-	20,175
10	621 Office Supplies and Expense	3,591	-	3,591	-	3,591
11	630 Outside Services	26,415	-	26,415	-	26,415
12	635 Contractual Services - Testing	5,109	-	5,109	-	5,109
13	636 Contractual Services - Other	-	-	-	-	-
14	641 Rental of Building/Real Propert	2,597	-	2,597	-	2,597
15	650 Transportation Expenses	5,733	-	5,733	-	5,733
16	657 Insurance - General Liability	1,557	-	1,557	-	1,557
17	659 Insurance - Other	269	-	269	-	269
18	666 Regulatory Commission Expen:	2,140	(1,052)	1,088	-	1,088
19	670 Bad Debt Expense	4,769	(2,546)	2,222	2,140	4,362
20	675 Miscellaneous Expenses	7,221	-	7,221	-	7,221
21	403 Depreciation Expense	380,785	(245,777)	135,008	-	135,008
22	403 Depreciation Expense - CIAC	(2,151)	-	(2,151)	-	(2,151)
23	408 Taxes Other Than Income	1,553	-	1,553	-	1,553
24	408.11 Taxes Other Than Income -	11,254	-	11,254	3,419	14,673
25	409 Income Taxes	(197,785)	154,089	(43,696)	75,046	31,350
26	<b>Total Operating Expenses</b>	<b>382,875</b>	<b>(96,577)</b>	<b>286,299</b>	<b>80,604</b>	<b>366,903</b>
27	<b>Operating Income (Loss)</b>	<b>\$ (175,170)</b>	<b>\$ 96,577</b>	<b>\$ (78,593)</b>	<b>\$ 119,379</b>	<b>\$ 40,786</b>

References:

- Column (A): Company Schedule C-1
- Column (B): Schedule GWB 11
- Column (C): Column (A) + Column (B)
- Column (D): Schedules GWB 2, Lines 29, 34 and 37
- Column (E): Column (C) + Column (D)



**SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR**

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Excess Water Loss ADJ #1 GWB-12	[C] Bad Debts Exp ADJ #2 GWB-13	[D] Rate Case Exp ADJ #3 GWB-14	[E] Deprec. Exp ADJ #4 GWB-16	[F] Income Taxes ADJ #5 GWB-17	[H] STAFF ADJUSTED
1	461 Metered Water Revenue	202,202	-	-	-	-	-	202,202
2	460 Unmetered Water Revenue	-	-	-	-	-	-	-
3	474 Other Water Revenues	5,503	-	-	-	-	-	5,503
4	<b>Total Operating Revenues</b>	<b>\$ 207,705</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 207,705</b>
<b>Operating Expenses</b>								
5	601 Salary and Wages - Employees	\$ 75,753	-	-	-	-	-	\$ 75,753
6	610 Purchased Water	960	-	-	-	-	-	960
7	615 Purchased Power	22,407	(878)	-	-	-	-	21,529
8	618 Chemicals	10,522	(412)	-	-	-	-	10,110
9	620 Materials and Supplies	20,175	-	-	-	-	-	20,175
10	621 Office Supplies and Expense	3,591	-	-	-	-	-	3,591
11	630 Outside Services	26,415	-	-	-	-	-	26,415
12	635 Contractual Services - Testing	5,109	-	-	-	-	-	5,109
13	636 Contractual Services - Other	-	-	-	-	-	-	-
14	641 Rental of Building/Real Property	2,597	-	-	-	-	-	2,597
15	650 Transportation Expenses	5,733	-	-	-	-	-	5,733
16	657 Insurance - General Liability	1,557	-	-	-	-	-	1,557
17	659 Insurance - Other	269	-	-	-	-	-	269
18	666 Regulatory Commission Expense --	2,140	-	(1,052)	-	-	-	1,088
19	670 Bad Debt Expense	4,769	-	(2,546)	-	-	-	2,222
20	675 Miscellaneous Expenses	7,221	-	-	-	-	-	7,221
21	403 Depreciation Expense	380,785	-	-	-	(245,777)	-	135,008
22	403 Depreciation Expense -- CIAC Amor	(2,151)	-	-	-	-	-	(2,151)
23	408 Taxes Other Than Income	1,553	-	-	-	-	-	1,553
24	408.11 Taxes Other Than Income - Prop	11,254	-	-	-	-	-	11,254
25	409 Income Taxes	(197,785)	-	-	-	-	154,089	(43,696)
26	<b>Total Operating Expenses</b>	<b>\$ 382,875</b>	<b>\$ (1,290)</b>	<b>\$ (2,546)</b>	<b>\$ (1,052)</b>	<b>\$ (245,777)</b>	<b>\$ 154,089</b>	<b>\$ 286,299</b>
27	<b>Operating Income</b>	<b>\$ (175,170)</b>	<b>\$ 1,290</b>	<b>\$ 2,546</b>	<b>\$ 1,052</b>	<b>\$ 245,777</b>	<b>\$ (154,089)</b>	<b>\$ (78,593)</b>

**OPERATING INCOME ADJUSTMENT #1 - EXCESS WATER LOSS**

LINE  
NO.

1	One plus allowable water loss	110.00%
2	One plus actual water loss	119.91%
3	Allowable portion	91.74%
4	Disallowable portion	<u>8.26%</u>
5	Power Expense	22,407
6	% water pumped in systems greater than 10% loss	47.40%
7	Power Expense, subject to disallowance	<u>10,621</u>
8	Disallowance	\$ 878
9	Chemical Expense	10,522
10	% water pumped in systems greater than 10% loss	47.40%
11	Chemical Expense, subject to disallowance	<u>4,988</u>
12	Disallowance	\$ 412

**Allocation of total water and power and chemicals  
by systems with losses greater than 10%:**

	Gallons Pumped	Gallons Sold	Water loss (%)
13 <b>Water System, Totals</b>			
14 Garden City, PWS 07-037	2,848,000	1,933,000	32.13%
15 Roseview, PWS 07-082	2,773,000	2,432,000	12.30%
16 WPE #1, PWS N/A	600,000	256,000	57.33%
17 WPE #6, PWS 07-733	1,997,000	1,560,000	21.88%
18 Tufte, PWS 07-617	456,000	403,000	11.62%
19 Buckeye Ranch, PWS 07-618	10,432,000	8,718,000	16.43%
20 Dixie, PWS 07-030	4,047,000	3,860,000	4.62%
21 Sunshine, PWS 07-071	17,153,000	16,396,000	4.41%
	<u>40,306,000</u>	<u>35,558,000</u>	<u>11.78%</u>
22 <b>Less Systems &lt; 10% :</b>			
23 Dixie, PWS 07-030	4,047,000	3,860,000	4.62%
24 Sunshine, PWS 07-071	17,153,000	16,396,000	4.41%
25 <b>Net Systems &gt; 10%</b>	<u>19,106,000</u>	<u>15,302,000</u>	<u>19.91%</u>
26 % Power and Chemicals, 27 Subject to Disallowance			47.40%

Line 1: Maximum acceptable level of water losses  
Line 2: Actual level of water losses  
Line 3: Line 2 / line 3  
Line 4: 1 minus line 4

Water Utility of Greater Tonopah, Inc.  
W-02450A-12-0312  
Test Year Ended December 31, 2011

Schedule GWB-13

**OPERATING INCOME ADJUSTMENT #2 - BAD DEBT EXPENSE**

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED*</u>
1		\$ 4,769	\$ (2,546)	\$ 2,222

References:

Column (A), Company Workpapers

Column (B): Testimony GWB

Column (C): Column (A) + Column (B), Per Co Response  
to Staff DR 5.8

Adjusted Test Year Revenues GWB-11	\$	207,705
Bad Debt Expense Rate, per Staff		<u>1.07%</u>
Expected Bad Debt Expense	\$	<u>2,222</u>
Co Proposed	\$	<u>4,769</u>
	\$	<u>(2,546)</u>

OPERATING INCOME ADJUSTMENT #3 - RATE CASE EXPENSE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF RECOMMENDED*						
1		\$ 2,140	\$ (1,052)	\$ 1,088						
<b>Company Proposed Rate Case Expense</b>										
		Total	Palo Verde	Santa Cruz	Town Division	Willow Valley	Tonopah	Buckeye	WUNS	
2	Allocation Percentages		39.86%	40.32%	13.45%	3.78%	0.82%	1.58%	0.19%	
3	Desert Mountain Analytical Services	\$ 122,082.50	\$ 48,652.28	\$ 49,217.78	\$ 16,420.29	\$ 4,615.89	\$ 995.73	\$ 1,926.91	\$ 233.57	
4	Insight Consulting, LLC	\$ 216,000.00	\$ 86,094.37	\$ 87,085.02	\$ 29,057.05	\$ 8,168.38	\$ 1,762.02	\$ 3,409.84	\$ 413.31	
5	Roshka Dewulf & Patten, PLC	\$ 370,302.78	\$ 147,597.14	\$ 149,312.63	\$ 49,814.36	\$ 14,003.59	\$ 3,020.75	\$ 5,845.71	\$ 708.57	
6	Ullmann & Company P C	\$ 78,808.76	\$ 31,411.99	\$ 31,777.08	\$ 10,801.82	\$ 2,980.28	\$ 842.88	\$ 1,244.10	\$ 150.80	
7	Total	\$ 787,174.03	\$ 313,755.78	\$ 317,402.49	\$ 105,893.32	\$ 29,768.25	\$ 6,421.38	\$ 12,426.56	\$ 1,506.25	\$ 787,174.03
8	Amortization over 3 years:									
9	Year 1	\$ 262,391.34	\$ 104,585.28	\$ 105,800.83	\$ 35,297.77	\$ 9,922.75	\$ 2,140.46	\$ 4,142.19	\$ 502.08	
10	Year 2	\$ 262,391.34	\$ 104,585.28	\$ 105,800.83	\$ 35,297.77	\$ 9,922.75	\$ 2,140.46	\$ 4,142.19	\$ 502.08	
11	Year 3	\$ 262,391.34	\$ 104,585.28	\$ 105,800.83	\$ 35,297.77	\$ 9,922.75	\$ 2,140.46	\$ 4,142.19	\$ 502.08	
12	Totals	\$ 787,174.03	\$ 313,755.78	\$ 317,402.49	\$ 105,893.32	\$ 29,768.25	\$ 6,421.38	\$ 12,426.56	\$ 1,506.25	
<b>Staff Recommended Rate Case Expense</b>										
13	Description	Total	Palo Verde	Santa Cruz	Town Division	Willow Valley	Tonopah	Buckeye	WUNS	
14	Staff Recommended Amount	\$ 400,000.00	\$ 159,434.01	\$ 161,287.07	\$ 53,809.36	\$ 15,126.64	\$ 3,263.00	\$ 6,314.52	\$ 785.40	\$ 400,000.00
15	Amortization:									
16	Year 1	\$ 133,333.33	\$ 53,144.67	\$ 53,762.36	\$ 17,936.45	\$ 5,042.21	\$ 1,087.67	\$ 2,104.84	\$ 255.13	
17	Year 2	\$ 133,333.33	\$ 53,144.67	\$ 53,762.36	\$ 17,936.45	\$ 5,042.21	\$ 1,087.67	\$ 2,104.84	\$ 255.13	
18	Year 3	\$ 133,333.33	\$ 53,144.67	\$ 53,762.36	\$ 17,936.45	\$ 5,042.21	\$ 1,087.67	\$ 2,104.84	\$ 255.13	
19	Totals	\$ 400,000.00	\$ 313,755.78	\$ 317,402.49	\$ 105,893.32	\$ 29,768.25	\$ 6,421.38	\$ 12,426.56	\$ 1,506.25	
20	Adjustment Total, by System	\$ (129,058.01)	\$ (51,440.59)	\$ (52,038.47)	\$ (17,361.32)	\$ (4,880.54)	\$ (1,052.79)	\$ (2,037.35)	\$ (246.95)	\$ (129,058.01)

References:  
Column (A), Company Workpapers  
Column (B): Line 20 for respective system  
Column (C): Line 16 for respective system

Company ID	Company	Active connector	Percent
202	Palo Verde Utilities Co.	15,831	39.86%
602	Santa Cruz Water Company	16,015	40.32%
618	Valencia Water Company	5,343	13.45%
622	Willow Valley Water Company	1,502	3.78%
630	Water Utility of Greater Tonopah	324	0.82%
634	Water Utility of Greater Buckeye	627	1.58%
622	Water Utility of Northern Scottsdale	76	0.19%
		39,718	100.00%

**OPERATING INCOME ADJUSTMENT #4 - DEPRECIATION EXPENSE**

LINE NO.	ACCT. NO.	DESCRIPTION	[A] PLANT BALANCE	[B] DEPRECIATION RATE	[C] DEPRECIATION EXPENSE
1		<u>PLANT IN SERVICE:</u>			
2	303	Land and Land Rights	177,430	0.00%	-
3	304	Structures and Improvements	47,677	3.33%	1,588
4	307	Wells and Springs	299,601	3.33%	9,977
5	309	Supply Mains	-	2.00%	-
6	310	Power Generation Equipment	-	5.00%	-
7	311	Pumping Equipment	1,787,637	12.50%	223,455
8	320	Water Treatment Equipment	0		-
	320.1	Water Treatment Plant	1,625,072	3.33%	54,115
	320.2	Solution Chemical Feeders	1,448	20.00%	290
9	330.0	Distribution Reservoirs and Standpipes	-		-
	330.1	Storage Tanks	103,612	2.22%	2,300
	330.2	Pressure Tanks	125,043	5.00%	6,252
10	331	Transmission and Distribution Mains	890,943	2.00%	17,819
11	333	Services	43,069	3.33%	1,434
12	334	Meters and Meter Installations	147,178	8.33%	12,260
13	335	Hydrants	38,386	2.00%	768
14	336	Backflow Prevention Devices	5,894	6.67%	393
15	339	Other Plant and Miscellaneous Equipment	5,427	6.67%	362
16	340	Office Furniture and Equipment	-	6.67%	-
17	341	Transportation Equipment	-	20.00%	-
18	343	Tools, Shop and Garage Equipment	1,977	5.00%	99
19	344	Laboratory Equipment	663	10.00%	66
20	345	Power Operated Equipment	838	5.00%	42
21	346	Communication Equipment	12,408	10.00%	1,241
22	347	Miscellaneous Equipment	5,210	10.00%	521
23	348	Other Tangible Plant	446,880	5.00%	22,344
24			5,766,394		355,325
25		Less: Non Depreciable Plant			
26		Land and Land Rights	177,430		
27		Net Depreciable Plant and Depreciation Amounts	\$ 5,588,964		\$ 355,325
28					
29		Less: Non Depreciable Plant			
30		Land and Land Rights	\$ 177,430		
31		Net Depreciable Plant and Depreciation Amounts	\$ 5,411,534		\$ 355,325
32					
33					
34		Amortization of CIAC at Company's Rate	\$ 3,388,142	6.5661%	\$ 222,467
35		Staff Recommended Depreciation Expense			\$ 132,857
36		Company Proposed Depreciation Expense			\$ 378,634
37		Staff Adjustment			\$ (245,777)

<u>References:</u>	
Col [A]	Schedule GWB-4
Col [B]	Proposed Rates per Staff Engineering Report
Col [C]	Col [A] times Col [B]

Water Utility of Greater Tonopah, Inc.  
W-02450A-12-0312  
Test Year Ended December 31, 2011

Schedule GWB-17

**OPERATING INCOME ADJUSTMENT #5 - INCOME TAXES**

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED</u>
1	Income Taxes	<u>\$ (197,785)</u>	<u>\$ 154,089</u>	<u>\$ (43,696)</u>

References:

Column (A), Company Schedule C-2  
Column (B): Testimony GWB  
Column (C): Column (A) + Column (B),  
see also Sch. GWB-2, line 48

OPERATING INCOME ADJUSTMENT #6 - PROPERTY TAX EXPENSE GRCF COMPONENT

LINE NO.	DESCRIPTION	[A]	[B]
		STAFF AS ADJUSTED	STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues - 2011	\$ 207,705	\$ 207,705
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	415,411	415,411
4	Staff Adjusted Test Year Revenues - 2011	207,705	
5	Staff Recommended Revenue		407,689
6	Subtotal (Line 4 + Line 5)	623,116	823,100
7	Number of Years	3	3
8	Three Year Average (Line 5 / Line 6)	207,705	274,367
9	Department of Revenue Multiplier	2	2
10	Revenue Base Value (Line 7 * Line 8)	415,411	548,733
11	Plus: 10% of CWIP	23,512	23,512
12	Less: Net Book Value of Licensed Vehicles	-	-
13	Full Cash Value (Line 10 + Line 11 - Line 12)	438,923	572,245
14	Assessment Ratio	21.0%	21.0%
15	Assessment Value (Line 13 * Line 14)	92,174	120,171
16	Composite Property Tax Rate	12.2100%	12.2100%
17	Staff Test Year Adjusted Property Tax Expense (Line 15 * Line 16)	\$ 11,254	
18	Company Proposed Property Tax	\$ 11,254	
19	Staff Test Year Adjustment (Line 17 - Line 18)	\$ (0)	
20	Property Tax on Staff Recommended Revenue (Line 15 * Line 16)		\$ 14,673
21	Staff Test Year Adjusted Property Tax Expense (Line 17)		\$ 11,254
22	Increase in Property Tax Due to Increase in Revenue Requirement		\$ 3,419
23	Increase in Property Tax Due to Increase in Revenue Requirement (Line 22)		\$ 3,419
24	Increase in Revenue Requirement		\$ 199,983
25	Increase in Property Tax Per Dollar Increase in Revenue (Line 23 / Line 24)		1.70940%

REFERENCES:

Line 15: Composite Tax Rate, per Company

Line 18: Company Schedule C-1, Line 36

**Valencia Water Company, Greater Buckeye Division.**

W-02451A-12-0313

Test Year Ended December 31, 2011

**DIRECT TESTIMONY OF GERALD BECKER**

**TABLE OF CONTENTS TO SCHEDULES :**

<u>SCH #</u>	<u>TITLE</u>
GWB- 1	REVENUE REQUIREMENT
GWB- 2	GROSS REVENUE CONVERSION FACTOR
GWB- 3	RATE BASE - ORIGINAL COST
GWB- 4	SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS
GWB- 5	NOT USED
GWB- 6	NOT USED
GWB- 7	NOT USED
GWB- 8	NOT USED
GWB- 9	NOT USED
GWB- 10	OPERATING INCOME STATEMENT - TEST YEAR AND STAFF RECOMMENDED
GWB- 11	SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR
GWB- 12	OPERATING INCOME ADJUSTMENT #1 - EXCESS WATER LOSS
GWB- 13	OPERATING INCOME ADJUSTMENT #2 - BAD DEBT EXPENSE
GWB- 14	OPERATING INCOME ADJUSTMENT #3 - RATE CASE EXPENSE
GWB- 15	NOT USED
GWB- 16	OPERATING INCOME ADJUSTMENT #4 - DEPRECIATION EXPENSE
GWB- 17	OPERATING INCOME ADJUSTMENT #5 - INCOME TAXES
GWB- 18	OPERATING INCOME ADJUSTMENT #6 - PROPERTY TAX EXPENSE GRCF COMPONENT



Valencia Water Company, Greater Buckeye Division.  
W-02451A-12-0313  
Test Year Ended December 31, 2011

Schedule GWB-1

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	(A) COMPANY ORIGINAL COST	(B) COMPANY FAIR VALUE	(C) STAFF ORIGINAL COST	(D) STAFF FAIR VALUE
1	Adjusted Rate Base	\$ 634,979	\$ 634,979	\$ 634,979	\$ 634,979
2	Adjusted Operating Income (Loss)	\$ 49,158	\$ 49,158	\$ 42,243	\$ 42,243
3	Current Rate of Return (L2 / L1)	7.74%	7.74%	6.65%	6.65%
4	Required Rate of Return	11.18%	11.18%	7.50%	7.50%
5	Required Operating Income (L4 * L1)	\$ 70,975	\$ 70,975	\$ 47,623	\$ 47,623
6	Operating Income Deficiency (L5 - L2)	\$ 21,817	\$ 21,817	\$ 5,381	\$ 5,381
7	Gross Revenue Conversion Factor	1.6694	1.6694	1.6563	1.6563
8	Required Revenue Increase (L7 * L6)	\$ 36,423	\$ 36,423	<b>\$ 8,912</b>	<b>\$ 8,912</b>
9	Adjusted Test Year Revenue	\$ 462,043	\$ 462,043	\$ 462,043	\$ 462,043
10	Proposed Annual Revenue (L8 + L9)	\$ 498,466	\$ 498,466	\$ 470,955	\$ 470,955
11	Required Increase in Revenue (%)	7.88%	7.88%	1.93%	1.93%
12	Rate of Return on Common Equity (%)	11.44%	11.44%	9.40%	9.40%

References:

Column (A): Company Schedule A-1  
Column (B): Company Schedule A-1  
Column (C): Company Schedules A-1, A-2, & D-1  
Column (D): Staff Schedules GWB-2, GWB-3, and GWB-10

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)																																																																				
<u>Calculation of Gross Revenue Conversion Factor:</u>																																																																								
1	Revenue	100.0000%																																																																						
2	Uncollectible Factor (Line 11)	0.5096%																																																																						
3	Revenues (L1 - L2)	99.4904%																																																																						
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	39.1155%																																																																						
5	Subtotal (L3 - L4)	60.3749%																																																																						
6	Revenue Conversion Factor (L1 / L5)	1.656318																																																																						
<u>Calculation of Uncollectible Factor:</u>																																																																								
7	Unity	100.0000%																																																																						
8	Combined Federal and State Tax Rate (Line 17)	38.5989%																																																																						
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%																																																																						
10	Uncollectible Rate	0.8300%																																																																						
11	Uncollectible Factor (L9 * L10)		0.5096%																																																																					
<u>Calculation of Effective Tax Rate:</u>																																																																								
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%																																																																						
13	Arizona State Income Tax Rate	6.9680%																																																																						
14	Federal Taxable Income (L12 - L13)	93.0320%																																																																						
15	Applicable Federal Income Tax Rate (Line 44)	34.0000%																																																																						
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%																																																																						
17	Combined Federal and State Income Tax Rate (L13 +L16)		38.5989%																																																																					
<u>Calculation of Effective Property Tax Factor</u>																																																																								
18	Unity	100.0000%																																																																						
19	Combined Federal and State Income Tax Rate (L17)	38.5989%																																																																						
20	One Minus Combined income Tax Rate (L18-L19)	61.4011%																																																																						
21	Property Tax Factor (GWB-18, L25)	0.8414%																																																																						
22	Effective Property Tax Factor (L20*L21)		0.5166%																																																																					
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			39.1155%																																																																				
24	Required Operating Income (Schedule GWB-1, Line 5)	\$ 47,623																																																																						
25	Adjusted Test Year Operating Income (Loss) (Schedule GWB-10, Line 36)	\$ 42,243																																																																						
26	Required Increase in Operating Income (L24 - L25)		\$ 5,381																																																																					
27	Income Taxes on Recommended Revenue (Col. (C), L48)	\$ 15,967																																																																						
28	Income Taxes on Test Year Revenue (Col. (A), L48)	\$ 12,584																																																																						
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		\$ 3,382																																																																					
30	Required Revenue Increase (Schedule GWB-1, Line 8)	\$ 8,912																																																																						
31	Uncollectible Rate (Line 10)	0.8300%																																																																						
32	Uncollectible Expense on Recommended Revenue (L30 * L31)	\$ 74																																																																						
33	Adjusted Test Year Uncollectible Expense - N/A	\$ -																																																																						
34	Required Increase in Revenue to Provide for Uncollectible Exp.		\$ 74																																																																					
35	Property Tax with Recommended Revenue (GWB-18, Line 21)	\$ 11,738																																																																						
36	Property Tax on Test Year Revenue (GWB-18, Col A, L19)	\$ 11,663																																																																						
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		\$ 75																																																																					
38	Total Required Increase in Revenue (L26 + L29 + L34+ L37)		\$ 8,912																																																																					
<table border="1" style="width:100%; margin-top:10px;"> <thead> <tr> <th></th> <th>(A) Test Year</th> <th>(B)</th> <th>(C) Staff Recommended</th> </tr> </thead> <tbody> <tr> <td colspan="4"><u>Calculation of Income Tax:</u></td> </tr> <tr> <td>39</td> <td>Revenue (Sch GWB-10, Col.(C) L4, GWB-1, Col. (D), L10)</td> <td>\$ 462,043</td> <td>\$ 470,955</td> </tr> <tr> <td>40</td> <td>Operating Expenses Excluding Income Taxes</td> <td>\$ 407,216</td> <td>\$ 407,365</td> </tr> <tr> <td>41</td> <td>Synchronized Interest (L53)</td> <td>\$ 22,224</td> <td>\$ 22,224</td> </tr> <tr> <td>42</td> <td>Arizona Taxable Income (L39 - L40 - L41)</td> <td>\$ 32,603</td> <td>\$ 41,366</td> </tr> <tr> <td>43</td> <td>Arizona State Income Tax Rate</td> <td>6.9680%</td> <td>6.9680%</td> </tr> <tr> <td>44</td> <td>Arizona Income Tax (L42 x L43)</td> <td>\$ 2,272</td> <td>\$ 2,882</td> </tr> <tr> <td>45</td> <td>Federal Taxable Income (L42 - L44)</td> <td>\$ 30,331</td> <td>\$ 38,484</td> </tr> <tr> <td>46</td> <td>Federal Tax</td> <td>\$ 10,313</td> <td>\$ 13,084</td> </tr> <tr> <td>47</td> <td>Total Federal Income Tax</td> <td>\$ 10,313</td> <td>\$ 13,084</td> </tr> <tr> <td>48</td> <td>Combined Federal and State Income Tax (L43 + L47)</td> <td>\$ 12,584</td> <td>\$ 15,967</td> </tr> <tr> <td>50</td> <td>Effective Tax Rate</td> <td></td> <td></td> </tr> <tr> <td colspan="4"><u>Calculation of Interest Synchronization:</u></td> </tr> <tr> <td>51</td> <td>Rate Base (Schedule GWB-3, Col. (C), Line 18)</td> <td></td> <td>N/A</td> </tr> <tr> <td>52</td> <td>Weighted Average Cost of Debt</td> <td></td> <td>\$ 634,979</td> </tr> <tr> <td>53</td> <td>Synchronized Interest (L50 X L51)</td> <td></td> <td>\$ 22,224</td> </tr> </tbody> </table>						(A) Test Year	(B)	(C) Staff Recommended	<u>Calculation of Income Tax:</u>				39	Revenue (Sch GWB-10, Col.(C) L4, GWB-1, Col. (D), L10)	\$ 462,043	\$ 470,955	40	Operating Expenses Excluding Income Taxes	\$ 407,216	\$ 407,365	41	Synchronized Interest (L53)	\$ 22,224	\$ 22,224	42	Arizona Taxable Income (L39 - L40 - L41)	\$ 32,603	\$ 41,366	43	Arizona State Income Tax Rate	6.9680%	6.9680%	44	Arizona Income Tax (L42 x L43)	\$ 2,272	\$ 2,882	45	Federal Taxable Income (L42 - L44)	\$ 30,331	\$ 38,484	46	Federal Tax	\$ 10,313	\$ 13,084	47	Total Federal Income Tax	\$ 10,313	\$ 13,084	48	Combined Federal and State Income Tax (L43 + L47)	\$ 12,584	\$ 15,967	50	Effective Tax Rate			<u>Calculation of Interest Synchronization:</u>				51	Rate Base (Schedule GWB-3, Col. (C), Line 18)		N/A	52	Weighted Average Cost of Debt		\$ 634,979	53	Synchronized Interest (L50 X L51)		\$ 22,224
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53	Synchronized Interest (L50 X L51)		\$ 22,224																																																																					

**RATE BASE - ORIGINAL COST**

LINE NO.	(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	(C) STAFF AS ADJUSTED
1	Plant in Service	\$ 3,079,206	\$ 3,079,206
2	Less: Accumulated Depreciation	1,372,116	1,372,116
3	Net Plant in Service	<u>\$ 1,707,090</u>	<u>\$ 1,707,090</u>
<u>LESS:</u>			
4	Contributions in Aid of Construction (CIAC)	\$ 407,979	\$ 407,979
5	Less: Accumulated Amortization	171,882	171,882
6	Net CIAC	<u>236,097</u>	<u>236,097</u>
7	Advances in Aid of Construction (AIAC)	722,274	722,274
8	Imputed Reg AIAC	-	-
9	Imputed Reg CIAC	-	-
10	Accumulated Deferred Income Tax Credits	112,475	112,475
	Customer Meter Deposits	43,597	43,597
<u>ADD:</u>			
11	Accumulated Deferred Income Tax Debits	42,332	42,332
12	Cash Working Capital	-	-
13	Prepayments	-	-
14	Supplies Inventory	-	-
15	Projected Capital Expenditures	-	-
16	Deferred Debits	-	-
17	Purchase Wastewater Treatment Charges	-	-
18	<b>Original Cost Rate Base</b>	<u>\$ 634,979</u>	<u>\$ 634,979</u>

References:

Column (A), Company Schedule B-2  
Column (B): Schedule GWB-4  
Column (C): Column (A) + Column (B)

**SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS**

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Reclassification ADJ #1 Per Testimony.	[I] STAFF ADJUSTED
<u>PLANT IN SERVICE:</u>					
1	303	Land and Land Rights	\$ 27,898	\$ -	\$ 27,898
2	304	Structures and Improvements	39,296		39,296
3	307	Wells and Springs	115,895		115,895
4	309	Supply Mains	-		-
5	310	Power Generation Equipment	1,738		1,738
6	311	Pumping Equipment	543,761		543,761
7	320	Water Treatment Equipment	844,990	(844,990)	-
8	320.1	Water Treatment Plant		844,990	844,990
9	320.2	Solution Chemical Feeders			-
10	330	Distribution Reservoirs and Standpipes	588,494	(588,494)	-
11	330.1	Storage Tanks		463,799	463,799
12	330.2	Pressure Tanks		124,695	124,695
13	331	Transmission and Distribution Mains	766,900		766,900
14	333	Services	37,406		37,406
15	334	Meters and Meter Installations	37,332		37,332
16	335	Hydrants	40,757		40,757
17	336	Backflow Prevention Devices	5,432		5,432
18	339	Other Plant and Miscellaneous Equipment	4,284		4,284
19	340	Office Furniture and Equipment	-		-
20	341	Transportation Equipment	-		-
21	343	Tools, Shop and Garage Equipment	1,650		1,650
22	344	Laboratory Equipment	-		-
23	345	Power Operated Equipment	-		-
24	346	Communication Equipment	4,751		4,751
25	347	Miscellaneous Equipment	10,089		10,089
26	348	Other Tangible Plant	8,533		8,533
27	<b>Total Plant in Service</b>		<b>3,079,206</b>	<b>0</b>	<b>3,079,206</b>
28	Accumulated Depreciation		1,372,116	-	1,372,116
30	Net Plant in Service		\$ 1,707,090	\$ 0	\$ 1,707,090
31					
32	<u>LESS:</u>				
33	Contributions in Aid of Construction (CIAC)		407,979		\$ 407,979
34	Less: Accumulated Amortization		171,882	-	171,882
35	Net CIAC (L63 - L64)		236,097	-	236,097
36	Advances in Aid of Construction (AIAC)		722,274	-	722,274
37	Imputed Reg Advances		-	-	-
38	Imputed Reg CIAC		-	-	-
39	Accumulated Deferred Income Tax Credits		112,475		112,475
40	Customer Meter Deposits		43,597		43,597
41	<u>ADD:</u>				
42	Accumulated Deferred Income Tax Debits		42,332		42,332
43	Working Capital Allowance		-		-
50	<b>Original Cost Rate Base</b>		<b>\$ 634,979</b>	<b>\$ 0</b>	<b>\$ 634,979</b>

OPERATING INCOME STATEMENT - TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	(A) COMPANY TEST YEAR AS FILED	(B) STAFF TEST YEAR ADJUSTMENTS	(C) STAFF TEST YEAR AS ADJUSTED	(D) STAFF RECOMMENDED CHANGES	(E) STAFF RECOMMENDED
		\$ -	\$ -	\$ -	\$ 8,912	\$ 8,912
1	461 Metered Water Revenue	449,915	-	449,915	-	449,915
2	460 Unmetered Water Revenue	-	-	-	-	-
3	474 Other Water Revenues	12,128	-	12,128	-	12,128
4	<b>Total Operating Revenues</b>	<b>\$ 462,043</b>	<b>\$ -</b>	<b>\$ 462,043</b>	<b>\$ 8,912</b>	<b>\$ 470,955</b>
5	601 Salary and Wages - Employees	\$ 108,598	\$ -	\$ 108,598	\$ -	\$ 108,598
6	610 Purchased Water	51,353	-	51,353	-	51,353
7	615 Purchased Power	27,669	(504)	27,166	-	27,166
8	618 Chemicals	5,234	(95)	5,139	-	5,139
9	620 Materials and Supplies	(2,816)	-	(2,816)	-	(2,816)
10	621 Office Supplies and Expense	5,458	-	5,458	-	5,458
11	630 Outside Services	36,433	-	36,433	-	36,433
12	635 Contractual Services - Testing	3,252	-	3,252	-	3,252
13	636 Contractual Services - Other	-	-	-	-	-
14	641 Rental of Building/Real Property	4,216	-	4,216	-	4,216
15	650 Transportation Expenses	9,090	-	9,090	-	9,090
16	657 Insurance - General Liability	2,836	-	2,836	-	2,836
17	659 Insurance - Other	1,509	-	1,509	-	1,509
18	666 Regulatory Commission Expenses	4,142	(2,037)	2,105	-	2,105
19	670 Bad Debt Expense	11,295	(7,460)	3,835	74	3,909
20	675 Miscellaneous Expenses	13,302	-	13,302	-	13,302
21	403 Depreciation Expense	137,751	10,210	147,961	-	147,961
22	403 Depreciation Expense - CIAC	(25,605)	-	(25,605)	-	(25,605)
23	408 Taxes Other Than Income	1,722	-	1,722	-	1,722
24	408.11 Taxes Other Than Income -	11,663	-	11,663	75	11,738
25	409 Income Taxes	5,783	6,801	12,584	-	15,967
26	<b>Total Operating Expenses</b>	<b>412,885</b>	<b>6,915</b>	<b>419,800</b>	<b>3,531</b>	<b>423,332</b>
27	<b>Operating Income (Loss)</b>	<b>\$ 49,158</b>	<b>\$ (6,915)</b>	<b>\$ 42,243</b>	<b>\$ 5,381</b>	<b>\$ 47,623</b>

References:

- Column (A): Company Schedule C-1
- Column (B): Schedule GWB 11
- Column (C): Column (A) + Column (B)
- Column (D): Schedules GWB 2, Lines 29, 34 and 37
- Column (E): Column (C) + Column (D)



Valencia Water Company, Greater Buckeye Division.  
W-02451A-12-0313  
Test Year Ended December 31, 2011

Schedule GWB-12

**OPERATING INCOME ADJUSTMENT #1 - EXCESS WATER LOSS**

LINE  
NO.

1	One plus allowable water loss		110.00%
2	One plus actual water loss		112.04%
3	Allowable portion		98.18%
4	Disallowable portion		<u>1.82%</u>
5	Power Expense		27,669
6	Disallowance	\$	504
7	Chemical Expense		5,234
8	Disallowance	\$	95

Line 1: Maximum acceptable level of water losses

Line 2: Actual level of water losses

Line 3: Line 2 / line 3

Line 4: 1 minus line 4

Line 6: Line 1 times line 5

Lines 1 - 6: See also testimony GWB

Valencia Water Company, Greater Buckeye Division.  
W-02451A-12-0313  
Test Year Ended December 31, 2011

Schedule GWB-13

**OPERATING INCOME ADJUSTMENT #2 - BAD DEBT EXPENSE**

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF RECOMMENDED*
1		\$ 11,295	\$ (7,460)	\$ 3,835

References:

Column (A), Company Workpapers

Column (B): Testimony GWB

Column (C): Column (A) + Column (B), Per Co Response  
to Staff DR 5.8

Adjusted Test Year Revenues GWB-11	\$	462,043
Bad Debt Expense Rate, per Staff		<u>0.83%</u>
Expected Bad Debt Expense	\$	3,835
Co Proposed	\$	<u>11,295</u>
	\$	<u>(7,460)</u>



OPERATING INCOME ADJUSTMENT #3 - RATE CASE EXPENSE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF RECOMMENDED*
1		\$ 4,142	\$ (2,037)	\$ 2,105

Company Proposed Rate Case Expense

	Total	Palo Verde	Santa Cruz	Town Division	Willow Valley	Tonopah	Buckeye	WUNS
2 Allocation Percentages		39.86%	40.32%	13.45%	3.78%	0.82%	1.58%	0.19%
3 Desert Mountain Analytical Services	\$ 122,063	\$ 48,852	\$ 49,218	\$ 16,420	\$ 4,616	\$ 996	\$ 1,927	\$ 234
4 Insight Consulting, LLC	\$ 218,000	\$ 86,094	\$ 87,095	\$ 29,057	\$ 8,168	\$ 1,762	\$ 3,410	\$ 413
5 Roshka Dewulf & Patten, PLC	\$ 370,303	\$ 147,597	\$ 149,313	\$ 49,814	\$ 14,004	\$ 3,021	\$ 5,846	\$ 709
6 Ullmann & Company P C	\$ 78,809	\$ 31,412	\$ 31,777	\$ 10,602	\$ 2,980	\$ 643	\$ 1,244	\$ 151
7 Total	\$ 787,174	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506
8 Amortization over 3 years:								
9 Year 1	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,298	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502
10 Year 2	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,298	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502
11 Year 3	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,298	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502
12 Totals	\$ 787,174	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506

Staff Recommended Rate Case Expense

	Total	Palo Verde	Santa Cruz	Town Division	Willow Valley	Tonopah	Buckeye	WUNS
13 Description								
14 Staff Recommended Amount	\$ 400,000	\$ 159,434	\$ 161,287	\$ 53,809	\$ 15,127	\$ 3,263	\$ 6,315	\$ 765
15 Amortization:								
16 Year 1	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255
17 Year 2	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255
18 Year 3	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255
19 Totals	\$ 400,000	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506
20 Adjustment Total, by System	\$ (129,058)	\$ (51,441)	\$ (52,038)	\$ (17,361)	\$ (4,881)	\$ (1,053)	\$ (2,037)	\$ (247)

References:

Column (A), Company Workpapers  
Column (B): Line 20 for respective system  
Column (C): Line 16 for respective system

**OPERATING INCOME ADJUSTMENT #4 - DEPRECIATION EXPENSE**

LINE NO.	ACCT. NO.	DESCRIPTION	[A] PLANT BALANCE	[B] DEPRECIATION RATE	[C] DEPRECIATION EXPENSE
1		<u>PLANT IN SERVICE:</u>			
2	303	Land and Land Rights	27,898	0.00%	-
3	304	Structures and Improvements	39,296	3.33%	1,309
4	307	Wells and Springs	115,895	3.33%	3,859
5	309	Supply Mains	-	2.00%	-
6	310	Power Generation Equipment	1,738	5.00%	87
7	311	Pumping Equipment	543,761	12.50%	67,970
8	320	Water Treatment Equipment	-	0.00%	-
9	320.1	Water Treatment Plant	844,990	3.33%	28,138
10	320.2	Solution Chemical Feeders	-	20.00%	-
11	330	Distribution Reservoirs and Standpipes	-	0.00%	-
12	330.1	Storage Tanks	463,799	2.22%	10,296
13	330.2	Pressure Tanks	124,695	5.00%	6,235
14	331	Transmission and Distribution Mains	766,900	2.00%	15,338
15	333	Services	37,406	3.33%	1,246
16	334	Meters and Meter Installations	37,332	8.33%	3,110
17	335	Hydrants	40,757	2.00%	815
18	336	Backflow Prevention Devices	5,432	6.67%	362
19	339	Other Plant and Miscellaneous Equipment	4,284	6.67%	286
20	340	Office Furniture and Equipment	-	6.67%	-
21	341	Transportation Equipment	-	20.00%	-
22	343	Tools, Shop and Garage Equipment	1,650	5.00%	83
23	344	Laboratory Equipment	-	10.00%	-
24	345	Power Operated Equipment	-	5.00%	-
25	346	Communication Equipment	4,751	10.00%	475
26	347	Miscellaneous Equipment	10,089	10.00%	1,009
27	348	Other Tangible Plant	8,533	5.00%	427
28		Totals	3,079,206		141,044
29		Less: Non Depreciable Plant			
30		Land and Land Rights	27,898		
31		Net Depreciable Plant and Depreciation Amounts	\$ 3,051,308		\$ 141,044
32					
33		Amortization of CIAC at Company's Rate	\$ 407,979	4.5805%	\$ 18,688
34		Staff Recommended Depreciation Expense			\$ 122,356
35		Company Proposed Depreciation Expense			\$ 112,146
36		Staff Adjustment			\$ 10,210

	<u>References:</u>
Col [A]	Schedule GWB-4
Col [B]	Proposed Rates per Staff Engineering Report
Col [C]	Col [A] times Col [B]

Valencia Water Company, Greater Buckeye Division.  
W-02451A-12-0313  
Test Year Ended December 31, 2011

Schedule GWB-17

**OPERATING INCOME ADJUSTMENT #5 - INCOME TAXES**

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED</u>
1	Income Taxes	<u>\$ 5,783</u>	<u>\$ 6,801</u>	<u>\$ 12,584</u>

References:

Column (A), Company Schedule C-2  
Column (B): Testimony GWB  
Column (C): Column (A) + Column (B),  
see also Sch. GWB-2, line 48

OPERATING INCOME ADJUSTMENT #6 - PROPERTY TAX EXPENSE GRCF COMPONENT

LINE NO.	DESCRIPTION	(A)	(B)
		STAFF AS ADJUSTED	STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues - 2011	\$ 462,043	\$ 462,043
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	924,086	924,086
4	Staff Adjusted Test Year Revenues - 2011	462,043	
5	Staff Recommended Revenue		470,955
6	Subtotal (Line 4 + Line 5)	1,386,129	1,395,041
7	Number of Years	3	3
8	Three Year Average (Line 5 / Line 6)	462,043	465,014
9	Department of Revenue Multiplier	2	2
10	Revenue Base Value (Line 7 * Line 8)	924,086	930,027
11	Plus: 10% of CWIP	(3)	(3)
12	Less: Net Book Value of Licensed Vehicles	-	-
13	Full Cash Value (Line 10 + Line 11 - Line 12)	924,083	930,024
14	Assessment Ratio	21.0%	21.0%
15	Assessment Value (Line 13 * Line 14)	194,057	195,305
16	Composite Property Tax Rate	6.0100%	6.0100%
17	Staff Test Year Adjusted Property Tax Expense (Line 15 * Line 16)	\$ 11,663	
18	Company Proposed Property Tax	\$ 11,663	
19	Staff Test Year Adjustment (Line 17 - Line 18)	\$ (0)	
20	Property Tax on Staff Recommended Revenue (Line 15 * Line 16)		\$ 11,738
21	Staff Test Year Adjusted Property Tax Expense (Line 17)		\$ 11,663
22	Increase in Property Tax Due to Increase in Revenue Requirement		\$ 75
23	Increase in Property Tax Due to Increase in Revenue Requirement (Line 22)		\$ 75
24	Increase in Revenue Requirement		\$ 8,912
25	Increase in Property Tax Per Dollar Increase in Revenue (Line 23 / Line 24)		0.84140%

REFERENCES:

Line 15: Composite Tax Rate, per Company  
Line 18: Company Schedule C-1, Line 36

**Global Water - Santa Cruz Water Company (Santa Cruz)**

Docket No. WS-03478A-12-0314

Test Year Ended December 31, 2011

**DIRECT TESTIMONY OF GERALD BECKER**

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GWB- 4	SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS
GWB- 5	NOT USED
GWB- 6	NOT USED
GWB- 7	NOT USED
GWB- 8	NOT USED
GWB- 9	NOT USED
GWB- 10	OPERATING INCOME STATEMENT - TEST YEAR AND STAFF RECOMMENDED
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GWB- 18	OPERATING INCOME ADJUSTMENT #7 - PROPERTY TAX EXPENSE GRCF COMPONENT

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	(A) COMPANY ORIGINAL COST	(B) COMPANY FAIR VALUE	(C) STAFF ORIGINAL COST	(D) STAFF FAIR VALUE
1	Adjusted Rate Base	\$ 38,014,243	\$ 38,014,243	\$ 27,618,694	\$ 27,618,694
2	Adjusted Operating Income (Loss)	\$ 1,675,030	\$ 1,675,030	\$ 2,230,848	\$ 2,230,848
3	Current Rate of Return (L2 / L1)	4.41%	4.41%	8.08%	8.08%
4	Required Rate of Return	8.79%	8.79%	7.50%	7.50%
5	Required Operating Income (L4 * L1)	\$ 3,342,866	\$ 3,342,866	\$ 2,071,402	\$ 2,071,402
6	Operating Income Deficiency (L5 - L2)	\$ 1,667,836	\$ 1,667,836	\$ (159,446)	\$ (159,446)
7	Gross Revenue Conversion Factor	1.637072	1.637072	1.663243	1.663243
8	Required Revenue Increase (L7 * L6)	\$ 2,730,367	\$ 2,730,367	<b>\$ (265,199)</b>	<b>\$ (265,199)</b>
9	Adjusted Test Year Revenue	\$ 10,463,460	\$ 10,463,460	\$ 10,463,460	\$ 10,463,460
10	Proposed Annual Revenue (L8 + L9)	\$ 13,193,827	\$ 13,193,827	\$ 10,198,261	\$ 10,198,261
11	Required Increase in Revenue (%)	26.10%	26.10%	-2.53%	-2.53%
12	Rate of Return on Common Equity (%)	11.44%	11.44%	9.40%	9.40%

References:

Column (A): Company Schedule A-1  
Column (B): Company Schedule A-1  
Column (C): Company Schedules A-1, A-2, & D-1  
Column (D): Staff Schedules GWB-2, GWB-3, and GWB-10

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)
<u>Calculation of Gross Revenue Conversion Factor:</u>				
1	Revenue	100.0000%		
2	Uncollectible Factor (Line 11)	0.4298%		
3	Revenues (L1 - L2)	99.5702%		
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	39.4467%		
5	Subtotal (L3 - L4)	60.1235%		
6	Revenue Conversion Factor (L1 / L5)	1.663243		
<u>Calculation of Uncollectible Factor:</u>				
7	Unity	100.0000%		
8	Combined Federal and State Tax Rate (Line 17)	38.5989%		
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%		
10	Uncollectible Rate	0.7000%		
11	Uncollectible Factor (L9 * L10)		0.42981%	
<u>Calculation of Effective Tax Rate:</u>				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%		
13	Arizona State Income Tax Rate	6.9680%		
14	Federal Taxable Income (L12 - L13)	93.0320%		
15	Applicable Federal Income Tax Rate (Line 44)	34.0000%		
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%		
17	Combined Federal and State Income Tax Rate (L13 +L16)		38.5989%	
<u>Calculation of Effective Property Tax Factor</u>				
18	Unity	100.0000%	6.968%	
19	Combined Federal and State Income Tax Rate (L17)	38.5989%		
20	One Minus Combined Income Tax Rate (L18-L19)	61.4011%		
21	Property Tax Factor (GWB-18, L25)	1.3808%		
22	Effective Property Tax Factor (L20*L21)		0.8478%	
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			39.4467%
24	Required Operating Income (Schedule GWB-1, Line 5)	\$ 2,071,402		
25	Adjusted Test Year Operating Income (Loss) (Schedule GWB-10, Line 36)	\$ 2,230,848		
26	Required Increase in Operating Income (L24 - L25)		\$ (159,446)	
27	Income Taxes on Recommended Revenue (Col. (C), L48)	\$ 694,482		
28	Income Taxes on Test Year Revenue (Col. (A), L48)	\$ 794,716		
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		\$ (100,234)	
30	Required Revenue Increase (Schedule GWB-1, Line 8)	\$ (265,199)		
31	Uncollectible Rate (Line 10)	0.7000%		
32	Uncollectible Expense on Recommended Revenue (L30 * L31)	\$ (1,856)		
33	Adjusted Test Year Uncollectible Expense - N/A	\$ -		
34	Required Increase in Revenue to Provide for Uncollectible Exp.		\$ (1,856)	
35	Property Tax with Recommended Revenue (GWB-18, Line 21)	\$ 433,210		
36	Property Tax on Test Year Revenue (GWB-18, Col A, L19)	\$ 436,871		
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		\$ (3,662)	
38	Total Required Increase in Revenue (L26 + L29 + L34 + L37)		\$ (265,198)	

	(A) Test Year	(B)	(C) Staff Recommended
<u>Calculation of Income Tax:</u>			
39	Revenue (Sch GWB-10, Col.(C) L4, GWB-1, Col. (D), L10)	\$ 10,463,460	\$ 10,198,261
40	Operating Expenses Excluding Income Taxes	\$ 7,437,895	\$ 7,432,377
41	Synchronized Interest (L53)	\$ 966,654	\$ 966,654
42	Arizona Taxable Income (L39 - L40 - L41)	\$ 2,058,910	\$ 1,799,230
43	Arizona State Income Tax Rate	6.9680%	6.9680%
44	Arizona Income Tax (L42 x L43)	\$ 143,465	\$ 125,370
45	Federal Taxable Income (L42 - L44)	\$ 1,915,445	\$ 1,673,859
46	Federal Tax	\$ 651,251	\$ 569,112
47	Total Federal Income Tax	\$ 651,251	\$ 569,112
48	Combined Federal and State Income Tax (L43 + L47)	\$ 794,716	\$ 694,482

50	Effective Tax Rate		
<u>Calculation of Interest Synchronization:</u>			
51	Rate Base (Schedule GWB-3, Col. (C), Line 18)		N/A
52	Weighted Average Cost of Debt		\$ 27,618,694
53	Synchronized Interest (L50 X L51)		3.5000%
			\$ 966,654

**RATE BASE - ORIGINAL COST**

LINE NO.	(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	(C) STAFF AS ADJUSTED
1	Plant in Service	\$ 90,376,391	\$ 90,376,391
2	Less: Accumulated Depreciation	19,047,719	19,047,719
3	Net Plant in Service	<u>\$ 71,328,672</u>	<u>\$ 71,328,672</u>
<u>LESS:</u>			
4	Contributions in Aid of Construction (CIAC)	\$ 82,949	\$ 13,142,684
5	Less: Accumulated Amortization	5,655	2,669,841
6	Net CIAC	<u>77,294</u>	<u>10,472,843</u>
7	Advances in Aid of Construction (AIAC)	33,414,961	33,414,961
8	Imputed Reg AIAC	-	-
9	Imputed Reg CIAC	-	-
10	Accumulated Deferred Income Tax Credits	-	-
	Customer Meter Deposits	1,193,499	1,193,499
<u>ADD:</u>			
11	Accumulated Deferred Income Tax Debits	194	194
12	Cash Working Capital	18,800	18,800
13	Deferred Compensation	50,256	50,256
14	CIAC	29,820	29,820
15	Fixed Asset Depreciation	1,272,256	1,272,256
16	Deferred Debits	-	-
17	Purchase Wastewater Treatment Charges	-	-
18	<b>Original Cost Rate Base</b>	<u>\$ 38,014,243</u>	<u>\$ 27,618,694</u>

References:

Column (A), Company Schedule B-2  
Column (B): Schedule GWB-4  
Column (C): Column (A) + Column (B)



SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Per Armstrong Testimony ADJ #2	[C] Reclassification ADJ #1 GWB-5	[I] STAFF ADJUSTED
<u>PLANT IN SERVICE:</u>						
1	303	Land and Land Rights	\$ 62,847	\$ -	\$ -	\$ 62,847
2	304	Structures and Improvements	9,566,104			9,566,104
3	306	Lake, River and Other Intakes	1,855			1,855
4	307	Wells and Springs	4,459,478			4,459,478
5	309	Supply Mains	2,340,773			2,340,773
6	310	Power Generation Equipment	324,955			324,955
7	311	Pumping Equipment	6,782,543			6,782,543
8	320	Water Treatment Equipment	27,095		(27,095)	-
	320.1	Water Treatment Plant			12,553	12,553
	320.2	Solution Chemical Feeders			14,541	14,541
9	330	Distribution Reservoirs and Standpipes	1,378,273		(1,378,273)	-
	330.1	Storage Tanks			820,301	820,301
	330.2	Pressure Tanks			557,973	557,973
10	331	Transmission and Distribution Mains	44,363,056			44,363,056
11	333	Services	4,645,439			4,645,439
12	334	Meters and Meter Installations	3,792,641			3,792,641
13	335	Hydrants	4,340,020			4,340,020
14	336	Backflow Prevention Devices	15,144			15,144
15	339	Other Plant and Miscellaneous Equipment	769,912			769,912
16	340	Office Furniture and Equipment	505,281			505,281
17	341	Transportation Equipment	585,195			585,195
18	343	Tools, Shop and Garage Equipment	71,996			71,996
19	344	Laboratory Equipment	103,063			103,063
20	345	Power Operated Equipment	60,372			60,372
21	346	Communication Equipment	640,845			640,845
22	347	Miscellaneous Equipment	85,226			85,226
23	348	Other Tangible Plant	5,448,566			5,448,566
24	390	Office Furniture & Equipment	5,712			5,712
25		<b>Total Plant in Service</b>	<u>90,376,391</u>	<u>-</u>	<u>-</u>	<u>90,376,391</u>
26						
27		Accumulated Depreciation	19,047,719	-		19,047,719
28		Net Plant in Service	<u>\$ 71,328,672</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 71,328,672</u>
29						
30		<u>LESS:</u>				
31		Contributions in Aid of Construction (CIAC)	\$ 82,949	\$ 13,059,735	\$ -	\$ 13,142,684
32		Less: Accumulated Amortization	5,655	2,664,186		2,669,841
33		Net CIAC (L63 - L64)	<u>77,294</u>	<u>10,395,549</u>	-	<u>10,472,843</u>
34		Advances in Aid of Construction (AIAC)	33,414,961	-		33,414,961
35		Customer Meter Deposits	1,193,499			1,193,499
36		<u>ADD:</u>				
37		Deferred Gains	194			194
38		Bad Debt	18,800			18,800
39		Deferred Compensation	50,256	-	-	50,256
40		CIAC	29,820	-	-	29,820
41		Fixed Asset depreciation	1,272,256	-	-	1,272,256
42		Prepayments	-	-	-	-
43		Projected Capital Expenditures	-	-	-	-
44		Deferred Debits	-	-	-	-
45		<b>Original Cost Rate Base</b>	<u>\$ 38,014,243</u>	<u>\$(10,395,549)</u>	<u>\$ -</u>	<u>\$ 27,618,694</u>

OPERATING INCOME STATEMENT - TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	(A) COMPANY TEST YEAR AS FILED	(B) STAFF TEST YEAR ADJUSTMENTS	(C) STAFF TEST YEAR AS ADJUSTED	(D) STAFF RECOMMENDED CHANGES	(E) STAFF RECOMMENDED
1	Metered Water Sales	\$ 10,083,750	\$ -	\$ 10,083,750	\$ (265,199)	\$ 9,818,551
2	Water Sales - Unmetered	-	-	-	-	-
3	Other Operating Revenue	379,710	-	379,710	-	379,710
4	<b>Total Operating Revenues</b>	<b>\$ 10,463,460</b>	<b>\$ -</b>	<b>\$ 10,463,460</b>	<b>\$ (265,199)</b>	<b>\$ 10,198,261</b>
5	601 Salary and Wages - Employees	\$ 1,268,835	\$ (157,960)	\$ 1,110,875	\$ -	\$ 1,110,875
6	604 Employee Pensions and Benefits	-	-	-	-	-
7	610 Purchased Water	-	-	-	-	-
8	615 Purchased Power	768,901	(15,748)	753,153	-	753,153
9	616 Fuel for Power Production	-	-	-	-	-
10	618 Chemicals	53,341	(1,092)	52,248	-	52,248
11	620 Materials and Supplies	47,783	(21,656)	26,127	-	26,127
12	620.08 Materials and Supplies	-	-	-	-	-
13	621 Office Supplies and Expense	90,035	-	90,035	-	90,035
14	630 Outside Services	1,053,640	(346,035)	707,605	-	707,605
15	635 Contractual Services - Testing	32,871	-	32,871	-	32,871
16	636 Contractual Services - Other	-	-	-	-	-
17	641 Rental of Building/Real Property	121,973	-	121,973	-	121,973
18	642 Rental of Equipment	-	-	-	-	-
19	650 Transportation Expenses	67,733	-	67,733	-	67,733
20	657 Insurance - General Liability	74,487	-	74,487	-	74,487
21	659 Insurance - Other	26,232	-	26,232	-	26,232
22	660 Advertising Expense	-	-	-	-	-
23	666 Regulatory Commission Expense - Rat	105,801	(52,038)	53,762	-	53,762
24	667 Rate Case Expense	-	-	-	-	-
25	670 Bad Debt Expense	53,925	19,319	73,244	(1,856)	71,388
26	675 Miscellaneous Expenses	373,190	-	373,190	-	373,190
27	403 Depreciation Expense	3,617,417	(676,427)	2,940,990	-	2,940,990
28	403 Depreciation Expense - CIAC Amortiza	(3,770)	-	(3,770)	-	(3,770)
29	408 Taxes Other Than Income	40,010	-	40,010	-	40,010
30	408.11 Taxes Other Than Income - Property	897,129	-	897,129	(3,662)	893,467
31	408.13 Taxes Other Than Income - Other Tε	-	-	-	-	-
32	409 Income Taxes	98,898	695,818	794,716	\$ (100,234)	694,482
33	<b>Total Operating Expenses</b>	<b>8,788,430</b>	<b>(555,818)</b>	<b>8,232,612</b>	<b>(105,752)</b>	<b>8,126,860</b>
34	<b>Operating Income (Loss)</b>	<b>\$ 1,675,030</b>	<b>\$ 555,818</b>	<b>\$ 2,230,848</b>	<b>\$ (159,447)</b>	<b>\$ 2,071,401</b>

References:

Column (A): Company Schedule C-1  
Column (B): Schedule GWB 11  
Column (C): Column (A) + Column (B)  
Column (D): Schedules GWB 2, Lines 29, 34 and 37  
Column (E): Column (C) + Column (D)



**OPERATING INCOME ADJUSTMENT #1 - EXCESS WATER LOSS**

LINE  
NO.

1	One plus allowable water loss	110.00%
2	One plus actual water loss	112.30%
3	Allowable portion	97.95%
4	Disallowable portion	2.05%
5	Power Expense	768,901
6	Disallowance	\$ 15,748
7	Chemical Expense	53,341
8	Disallowance	\$ 1,092

Line 1: Maximum acceptable level of water losses

Line 2: Actual level of water losses

Line 3: Line 2 / line 3

Line 4: 1 minus line 4

Line 6: Line 1 times line 5

Lines 1 - 6: See also testimony GWB

Global Water - Santa Cruz Water Company (Santa Cruz)  
 Docket No. WS-03478A-12-0314  
 Test Year Ended December 31, 2011

Schedule GWB-13

**OPERATING INCOME ADJUSTMENT #2 - BAD DEBT EXPENSE**

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF RECOMMENDED*
1		\$ 53,925	\$ 19,319	\$ 73,244

References:

Column (A), Company Workpapers

Column (B): Testimony GWB

Column (C): Column (A) + Column (B), Per Co Response  
 to Staff DR 5.8

Adjusted Test Year Revenues GWB-11	\$ 10,463,460
Bad Debt Expense Rate, per Staff	0.70%
Expected Bad Debt Expense	\$ 73,244
Co Proposed	\$ 53,925
	\$ (19,319)

OPERATING INCOME ADJUSTMENT #3 - RATE CASE EXPENSE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF RECOMMENDED*
1		\$ 105,801	\$ (52,038)	\$ 53,762

Company Proposed Rate Case Expense

	Total	Palo Verde	Santa Cruz	Town Division	Willow Valley	Tonopah	Buckeye	WJNS
2 Allocation Percentages		39.86%	40.32%	13.45%	3.78%	0.82%	1.58%	0.19%
3 Desert Mountain Analytical Services	\$ 122,063	\$ 48,852	\$ 49,218	\$ 16,420	\$ 4,816	\$ 996	\$ 1,927	\$ 234
4 Insight Consulting, LLC	\$ 216,000	\$ 86,094	\$ 87,095	\$ 29,057	\$ 8,168	\$ 1,762	\$ 3,410	\$ 413
5 Roshika Dewulf & Patten, PLC	\$ 370,303	\$ 147,597	\$ 149,313	\$ 49,814	\$ 14,004	\$ 3,021	\$ 5,848	\$ 709
6 Ullmann & Company P C	\$ 78,809	\$ 31,412	\$ 31,777	\$ 10,602	\$ 2,980	\$ 643	\$ 1,244	\$ 151
7 Total	\$ 787,174	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506
8 Amortization over 3 years:								
9 Year 1	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,298	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502
10 Year 2	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,298	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502
11 Year 3	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,298	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502
12 Totals	\$ 787,174	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506

Staff Recommended Rate Case Expense

Description	Total	Palo Verde	Santa Cruz	Town Division	Willow Valley	Tonopah	Buckeye	WJNS
13 Staff Recommended Amount	\$ 400,000	\$ 159,434	\$ 181,287	\$ 53,809	\$ 15,127	\$ 3,263	\$ 6,315	\$ 765
15 Amortization:								
16 Year 1	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255
17 Year 2	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255
18 Year 3	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255
19 Totals	\$ 400,000	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506
20 Adjustment Total, by System	\$ (129,058)	\$ (51,441)	\$ (52,038)	\$ (17,381)	\$ (4,881)	\$ (1,053)	\$ (2,037)	\$ (247)

References:

Column (A): Company Workpapers  
Column (B): Line 20 for respective system  
Column (C): Line 16 for respective system

**OPERATING INCOME ADJUSTMENT #4 - EXPENSE NORMALIZATIONS**

<u>LINE NO.</u>	<u>ACCT / DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED*</u>
1	601 Salary and Wages - Employees	\$ 1,268,835	\$ (157,960)	\$ 1,110,875
2	620 Materials and Supplies	\$ 47,783	\$ (21,656)	\$ 26,127
3	630 Outside Services	\$ 1,053,640	\$ (346,035)	\$ 707,605
		<u>\$ 1,233,610</u>	<u>\$ (367,691)</u>	<u>\$ 865,919</u>

References:

Column (A), Company Workpapers  
Column (B): Testimony GWB  
Column (C): Column (A) + Column (B)

OPERATING INCOME ADJUSTMENT #5 - DEPRECIATION EXPENSE

LINE NO.	ACCT. NO.	DESCRIPTION	[A] PLANT BALANCE	[B] DEPRECIATION RATE	[C] DEPRECIATION EXPENSE
1		<u>PLANT IN SERVICE:</u>			
2	303	Land and Land Rights	\$ 62,847	0.00%	-
3	304	Structures and Improvements	9,566,104	3.33%	318,551
4	306	Lake, River and Other Intakes	1,855	2.50%	46
5	307	Wells and Springs	4,459,478	3.33%	148,501
6	309	Supply Mains	2,340,773	2.00%	46,815
7	310	Power Generation Equipment	324,955	5.00%	16,248
8	311	Pumping Equipment	6,782,543	12.50%	847,818
9	320	Water Treatment Equipment	-	0.00%	-
10	320.1	Water Treatment Plant	12,553	3.33%	418
11	320.2	Solution Chemical Feeders	14,541	20.00%	2,908
12	330	Distribution Reservoirs and Standpipes	-	0.00%	-
13	330.1	Storage Tanks	820,301	2.22%	18,211
14	330.2	Pressure Tanks	557,973	5.00%	27,899
15	331	Transmission and Distribution Mains	44,363,056	2.00%	887,261
16	333	Services	4,645,439	3.33%	154,693
17	334	Meters and Meter Installations	3,792,641	8.33%	315,927
18	335	Hydrants	4,340,020	2.00%	86,800
19	336	Backflow Prevention Devices	15,144	6.67%	1,010
20	339	Other Plant and Miscellaneous Equipment	769,912	6.67%	51,353
21	340	Office Furniture and Equipment	505,281	6.67%	33,702
22	341	Transportation Equipment	585,195	20.00%	117,039
23	343	Tools, Shop and Garage Equipment	71,996	5.00%	3,600
24	344	Laboratory Equipment	103,063	10.00%	10,306
25	345	Power Operated Equipment	60,372	5.00%	3,019
26	346	Communication Equipment	640,845	10.00%	64,085
27	347	Miscellaneous Equipment	85,226	10.00%	8,523
28	348	Other Tangible Plant	5,448,566	5.00%	272,428
29	390	Office Furniture & Equipment	5,712	5.00%	286
30		Total Utility Plant in Service	90,376,391		3,437,447
31		Less: Non Depreciable Plant			
32		Land and Land Rights	\$ 62,847		
33		Net Depreciable Plant and Depreciation Amounts	\$ 90,313,544		\$ 3,437,447
34					
35		Amortization of CIAC	\$ 13,142,684	3.8061%	\$ 500,227
36		Staff Recommended Depreciation Expense			\$ 2,937,220
37		Company Proposed Depreciation Expense			\$ 3,613,647
38		Staff Adjustment			\$ (676,427)

References:

Col [A]	Schedule GWB-4
Col [B]	Proposed Rates per Staff Engineering Report for Non Allocated Plant
Col [C]	Col [A] times Col [B]



Global Water - Santa Cruz Water Company (Santa Cruz)  
Docket No. WS-03478A-12-0314  
Test Year Ended December 31, 2011

Schedule GWB-17

OPERATING INCOME ADJUSTMENT #6 - INCOME TAXES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED</u>
1	Income Taxes	<u>\$ 98,898</u>	<u>\$ 695,818</u>	<u>\$ 794,716</u>

References:

Column (A), Company Schedule C-2  
Column (B): Testimony GWB  
Column (C): Column (A) + Column (B),  
see also Sch. GWB-2, line 48

OPERATING INCOME ADJUSTMENT #7 - PROPERTY TAX EXPENSE GRCF COMPONENT

LINE NO.	DESCRIPTION	[A]	[B]
		STAFF AS ADJUSTED	STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues - 2011	\$ 10,463,460	\$ 10,463,460
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	20,926,920	20,926,920
4	Staff Adjusted Test Year Revenues - 2011	10,463,460	
5	Staff Recommended Revenue		10,198,262
6	Subtotal (Line 4 + Line 5)	31,390,379	31,125,182
7	Number of Years	3	3
8	Three Year Average (Line 5 / Line 6)	10,463,460	10,375,061
9	Department of Revenue Multiplier	2	2
10	Revenue Base Value (Line 7 * Line 8)	20,926,920	20,750,121
11	Plus: 10% of CWIP	243,735	243,735
12	Less: Net Book Value of Licensed Vehicles	77,783	77,783
13	Full Cash Value (Line 10 + Line 11 - Line 12)	21,092,872	20,916,073
14	Assessment Ratio	20.0%	20.0%
15	Assessment Value (Line 13 * Line 14)	4,218,574	4,183,215
16	Composite Property Tax Rate	10.3559%	10.3559%
17	Staff Test Year Adjusted Property Tax Expense (Line 15 * Line 16)	\$ 436,871	
18	Company Proposed Property Tax	\$ 897,129	
19	Staff Test Year Adjustment (Line 17 - Line 18)	\$ (460,258)	
20	Property Tax on Staff Recommended Revenue (Line 15 * Line 16)		\$ 433,210
21	Staff Test Year Adjusted Property Tax Expense (Line 17)		\$ 436,871
22	Increase in Property Tax Due to Increase in Revenue Requirement		\$ (3,662)
23	Increase in Property Tax Due to Increase in Revenue Requirement (Line 22)		\$ (3,662)
24	Increase in Revenue Requirement		\$ (265,198)
25	Increase in Property Tax Per Dollar Increase in Revenue (Line 23 / Line 24)		1.38079%

REFERENCES:

Line 15: Composite Tax Rate, per Company  
Line 18: Company Schedule C-1, Line 36

Global Water - Willow Valley Water Company (Willow Valley)  
Docket No. W-01732A-12-0315  
Test Year Ended December 31, 2011

**DIRECT TESTIMONY OF GERALD BECKER**

**TABLE OF CONTENTS TO SCHEDULES :**

<b><u>SCH #</u></b>	<b><u>TITLE</u></b>
GWB- 1	REVENUE REQUIREMENT
GWB- 2	GROSS REVENUE CONVERSION FACTOR
GWB- 3	RATE BASE - ORIGINAL COST
GWB- 4	SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS
GWB- 5	RATE BASE ADJUSTMENT #1 POST TEST YEAR PLANT
GWB- 6	NOT USED
GWB- 7	NOT USED
GWB- 8	NOT USED
GWB- 9	NOT USED
GWB- 10	OPERATING INCOME STATEMENT - TEST YEAR AND STAFF RECOMMENDED
GWB- 11	SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR
GWB- 12	OPERATING INCOME ADJUSTMENT #1 - EXCESS WATER LOSS
GWB- 13	OPERATING INCOME ADJUSTMENT #2 - BAD DEBT EXPENSE
GWB- 14	OPERATING INCOME ADJUSTMENT #3 - RATE CASE EXPENSE
GWB- 15A	OPERATING INCOME ADJUSTMENT #4 - EXPENSE NORMALIZATIONS
GWB- 15B	OPERATING INCOME ADJUSTMENT #5 - WATER TESTING EXPENSE
GWB- 16	OPERATING INCOME ADJUSTMENT #6 - DEPRECIATION EXPENSE
GWB- 17	OPERATING INCOME ADJUSTMENT #7 - INCOME TAXES
GWB- 18	OPERATING INCOME ADJUSTMENT #8 - PROPERTY TAX EXPENSE GRCF COMPONENT

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	(A) COMPANY ORIGINAL COST	(B) COMPANY FAIR VALUE	(C) STAFF ORIGINAL COST	(D) STAFF FAIR VALUE
1	Adjusted Rate Base	\$ 2,359,391	\$ 2,359,391	\$ 2,278,955	\$ 2,278,955
2	Adjusted Operating Income (Loss)	\$ (58,493)	\$ (58,493)	\$ (71,747)	\$ (71,747)
3	Current Rate of Return (L2 / L1)	-2.48%	-2.48%	-3.15%	-3.15%
4	Required Rate of Return	10.60%	10.60%	7.50%	7.50%
5	Required Operating Income (L4 * L1)	\$ 250,024	\$ 250,024	\$ 170,922	\$ 170,922
6	Operating Income Deficiency (L5 - L2)	\$ 308,517	\$ 308,517	\$ 242,669	\$ 242,669
7	Gross Revenue Conversion Factor	1.645086	1.645086	1.665100	1.665100
8	Required Revenue Increase (L7 * L6)	\$ 507,537	\$ 507,537	<b>\$ 404,068</b>	<b>\$ 404,068</b>
9	Adjusted Test Year Revenue	\$ 702,652	\$ 702,652	\$ 702,652	\$ 702,652
10	Proposed Annual Revenue (L8 + L9)	\$ 1,210,190	\$ 1,210,190	\$ 1,106,720	\$ 1,106,720
11	Required Increase in Revenue (%)	72.23%	72.23%	57.51%	57.51%
12	Rate of Return on Common Equity (%)	11.44%	11.44%	9.40%	9.40%

References:

Column (A): Company Schedule A-1

Column (B): Company Schedule A-1

Column (C): Company Schedules A-1, A-2, & D-1

Column (D): Staff Schedules GWB-2, GWB-3, and GWB-10

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)
<u>Calculation of Gross Revenue Conversion Factor:</u>				
1	Revenue	100.0000%		
2	Uncollectible Factor (Line 11)	0.3561%		
3	Revenues (L1 - L2)	99.6439%		
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	39.5874%		
5	Subtotal (L3 - L4)	60.0564%		
6	Revenue Conversion Factor (L1 / L5)	1.665100		
<u>Calculation of Uncollectible Factor:</u>				
7	Unity	100.0000%		
8	Combined Federal and State Tax Rate (Line 17)	38.5989%		
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%		
10	Uncollectible Rate	0.5800%		
11	Uncollectible Factor (L9 * L10)		0.3561%	
<u>Calculation of Effective Tax Rate:</u>				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%		
13	Arizona State Income Tax Rate	6.9680%		
14	Federal Taxable Income (L12 - L13)	93.0320%		
15	Applicable Federal Income Tax Rate (Line 44)	34.0000%		
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%		
17	Combined Federal and State Income Tax Rate (L13 +L16)		38.5989%	
<u>Calculation of Effective Property Tax Factor</u>				
18	Unity	100.0000%		
19	Combined Federal and State Income Tax Rate (L17)	38.5989%		
20	One Minus Combined Income Tax Rate (L18-L19)	61.4011%		
21	Property Tax Factor (GWB-18, L25)	1.6100%		
22	Effective Property Tax Factor (L20*L21)		0.9886%	
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			39.5874%

24	Required Operating Income (Schedule GWB-1, Line 5)	\$ 170,922		
25	Adjusted Test Year Operating Income (Loss) (Schedule GWB-10, Line 36)	\$ (71,747)		
26	Required Increase in Operating Income (L24 - L25)		\$ 242,669	
27	Income Taxes on Recommended Revenue (Col. (C), L48)	\$ 57,306		
28	Income Taxes on Test Year Revenue (Col. (A), L48)	\$ (95,245)		
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		\$ 152,550	
30	Required Revenue Increase (Schedule GWB-1, Line 8)	\$ 404,068		
31	Uncollectible Rate (Line 10)	0.5800%		
32	Uncollectible Expense on Recommended Revenue (L30 * L31)	\$ 2,344		
33	Adjusted Test Year Uncollectible Expense - N/A	\$ -		
34	Required Increase in Revenue to Provide for Uncollectible Exp.		\$ 2,344	
35	Property Tax with Recommended Revenue (GWB-18, Line 21)	\$ 40,437		
36	Property Tax on Test Year Revenue (GWB-18, Col A, L19)	\$ 33,931		
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		\$ 6,506	
38	Total Required Increase in Revenue (L26 + L29 + L34+ L37)		\$ 404,068	

	(A) Test Year	(B)	(C) Staff Recommended
<u>Calculation of Income Tax:</u>			
39	Revenue (Sch GWB-10, Col.(C) L4, GWB-1, Col. (D), L10)	\$ 702,652	\$ 1,106,721
40	Operating Expenses Excluding Income Taxes	\$ 869,645	\$ 878,494
41	Synchronized Interest (L53)	\$ 79,763	\$ 79,763
42	Arizona Taxable Income (L39 - L40 - L41)	\$ (246,756)	\$ 148,464
43	Arizona State Income Tax Rate	6.9680%	6.9680%
44	Arizona Income Tax (L42 x L43)	\$ (17,194)	\$ 10,345
45	Federal Taxable Income (L42 - L44)	\$ (229,562)	\$ 138,119
46	Federal Tax	\$ (78,051)	\$ 46,961
47	Total Federal Income Tax	\$ (78,051)	\$ 46,961
48	Combined Federal and State Income Tax (L43 + L47)	\$ (95,245)	\$ 57,306

50 Effective Tax Rate

Calculation of Interest Synchronization:

51	Rate Base (Schedule GWB-3, Col. (C), Line 18)	N/A
52	Weighted Average Cost of Debt	\$ 2,278,955
53	Synchronized Interest (L50 X L51)	3.5000%
		\$ 79,763

**RATE BASE - ORIGINAL COST**

LINE NO.	(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	(C) STAFF AS ADJUSTED
1	Plant in Service	\$ 5,113,538	\$ 5,033,102
2	Less: Accumulated Depreciation	(1,742,556)	(1,742,556)
3	Net Plant in Service	<u>\$ 3,370,982</u>	<u>\$ 3,290,546</u>
<u>LESS:</u>			
4	Contributions in Aid of Construction (CIAC)	\$ -	\$ -
5	Less: Accumulated Amortization	-	-
6	Net CIAC	<u>-</u>	<u>-</u>
7	Advances in Aid of Construction (AIAC)	610,760	610,760
8	Imputed Reg AIAC	-	-
9	Imputed Reg CIAC	-	-
10	Accumulated Deferred Income Tax Credits	391,114	391,114
	Customer Meter Deposits	36,233	36,233
<u>ADD:</u>			
11	Accumulated Deferred Income Tax Debits	26,516	26,516
12	Cash Working Capital	-	-
13	Deferred Compensation	-	-
14	CIAC	-	-
15	Fixed Asset Depreciation	-	-
16	Deferred Debits	-	-
17	Purchase Wastewater Treatment Charges	-	-
18	<b>Original Cost Rate Base</b>	<u>\$ 2,359,391</u>	<u>\$ 2,278,955</u>

References:

Column (A), Company Schedule B-2  
Column (B): Schedule GWB-4  
Column (C): Column (A) + Column (B)

**SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS**

LINE NO.	ACCT. NO.	DESCRIPTION	[A]	[B]	[I]
			COMPANY AS FILED	Reclassification ADJ #1 GWB-5	STAFF ADJUSTED
<u>PLANT IN SERVICE:</u>					
1	303	Land and Land Rights	\$ 18,293	\$ -	\$ 18,293
2	304	Structures and Improvements	464,273		464,273
3	306	Lake, River and Other Intakes	-		-
4	307	Wells and Springs	1,623,786		1,623,786
5	309	Supply Mains	5,441		5,441
6	310	Power Generation Equipment	10,751		10,751
7	311	Pumping Equipment	537,335		537,335
8	320	Water Treatment Equipment	572,865	(572,865)	-
9	320.1	Water Treatment Plant		303,188	303,188
10	320.2	Solution Chemical Feeders		269,677	269,677
11	330	Distribution Reservoirs and Standpipes	265,900	(265,900)	-
12	330.1	Storage Tanks		220,751	220,751
13	330.2	Pressure Tanks		45,148	45,148
14	331	Transmission and Distribution Mains	670,561		670,561
15	333	Services	96,681		96,681
16	334	Meters and Meter Installations	533,416		533,416
17	335	Hydrants	47,803		47,803
18	336	Backflow Prevention Devices	1,024		1,024
19	339	Other Plant and Miscellaneous Equipment	20,318		20,318
20	340	Office Furniture and Equipment	22,646		22,646
21	341	Transportation Equipment	21,527		21,527
22	343	Tools, Shop and Garage Equipment	43,388		43,388
23	344	Laboratory Equipment	9,508		9,508
24	345	Power Operated Equipment	38,925		38,925
25	346	Communication Equipment	13,877		13,877
26	347	Miscellaneous Equipment	90,659	(80,436)	10,223
27	348	Other Tangible Plant	3,937		3,937
28	390	Office Furniture & Equipment	625		625
29					
30		<b>Total Plant in Service</b>	<b>5,113,538</b>	<b>(80,436)</b>	<b>5,033,102</b>
31		Accumulated Depreciation	(1,742,556)	-	(1,742,556)
32		Net Plant in Service	\$ 3,370,982	\$ (80,436)	\$ 3,290,546
33					
34		<u>LESS:</u>			
35		Net Contributions in Aid of Construction (CIAC)	\$ -		\$ -
36		Advances in Aid of Construction (AIAC)	610,760	-	610,760
37		Customer Meter Deposits	36,233		36,233
38		Deferred Income Tax Credits	391,114		391,114
39					
40		<u>ADD:</u>			
41		Unamortized Finance Charges	-		-
42		Deferred Income Tax Assets	-		-
43		Meter Deposits	16,555		16,555
44		Deferred Gain	794		794
45		Bad debt	4,414		4,414
46		Deferred compensation	4,754	-	4,754
47		CIAC	-	-	-
48		Working Capital	-	-	-
49		Utility Plant Acquisition Adjustment	-	-	-
50					
51		<b>Original Cost Rate Base</b>	<b>\$ 2,359,391</b>	<b>\$ (80,436)</b>	<b>\$ 2,278,955</b>
52					
53					

Supporting Schedules:

B-2  
B-3  
E-1  
B-5

Recap Schedules:

A-1

Global Water - Willow Valley Water Company (Willow Valley)  
Docket No. W-01732A-12-0315  
Test Year Ended December 31, 2011

Schedule GWB-5

RATE BASE ADJUSTMENT #1 POST TEST YEAR PLANT

<u>LINE</u> <u>NO.</u>	<u>ACCT</u> <u>NO.</u>	<u>Description</u>	[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	[C] STAFF AS ADJUSTED
1	348	Miscellaneous Equipment	80,436	(80,436)	.
		<u>Disallowed PTYP</u>			
		SCADA - WWC	\$ 80,436		

References:

Column [A] : Disallowed Amount reflected in Acct. 348, PTYP, Per Co Schedule B-2.1

Column [B] , Col [C] less Col [A]

Column [C] , Per testimony GWB and Engineering testimony



OPERATING INCOME STATEMENT - TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF RECOMMENDED CHANGES	[E] STAFF RECOMMENDED
1	Metered Water Sales	\$ -	\$ -	\$ -	\$ -	\$ -
2	Water Sales - Unmetered	689,274	-	689,274	404,069	1,093,343
3	Other Operating Revenue	13,378	-	13,378	-	13,378
4	<b>Total Operating Revenues</b>	<b>\$ 702,652</b>	<b>\$ -</b>	<b>\$ 702,652</b>	<b>\$ 404,069</b>	<b>\$ 1,106,721</b>
5	601 Salary and Wages - Employees	\$ 263,312	\$ (15,369)	\$ 247,943	\$ -	\$ 247,943
6	604 Employee Pensions and Benefits	-	-	-	-	-
7	610 Purchased Water	-	-	-	-	-
8	615 Purchased Power	43,747	(4,751)	38,997	-	38,997
9	616 Fuel for Power Production	-	-	-	-	-
10	618 Chemicals	55,422	(6,018)	49,404	-	49,404
11	620 Materials and Supplies	36,002	(15,453)	20,549	-	20,549
12	621 Office Supplies and Expense	27,025	-	27,025	-	27,025
13	630 Outside Services	97,501	(17,749)	79,752	-	79,752
14	635 Contractual Services - Testing	20,993	(5,285)	15,708	-	15,708
15	636 Contractual Services - Other	-	-	-	-	-
16	641 Rental of Building/Real Property	10,241	-	10,241	-	10,241
17	642 Rental of Equipment	-	-	-	-	-
18	650 Transportation Expenses	24,173	-	24,173	-	24,173
19	657 Insurance - General Liability	7,125	-	7,125	-	7,125
20	659 Insurance - Other	4,218	-	4,218	-	4,218
21	666 Regulatory Commission Expense - Rate C	9,922	(4,880)	5,042	-	5,042
22	667 Rate Case Expense	-	-	-	-	-
23	670 Bad Debt Expense	8,251	(4,175)	4,075	2,344	6,419
24	675 Miscellaneous Expenses	24,563	(9,383)	15,180	-	15,180
25	403 Depreciation Expense	200,668	84,832	285,500	-	285,500
26	408 Taxes Other Than Income	782	-	782	-	782
27	408 Taxes Other Than Income - Property Tax	33,931	-	33,931	6,506	40,437
28	409 Income Taxes	(106,730)	11,486	(95,245)	152,550	57,306
29	<b>Total Operating Expenses</b>	<b>761,145</b>	<b>13,254</b>	<b>774,400</b>	<b>161,400</b>	<b>935,799</b>
30	<b>Operating Income (Loss)</b>	<b>\$ (58,493)</b>	<b>\$ (13,254)</b>	<b>\$ (71,747)</b>	<b>\$ 242,669</b>	<b>\$ 170,922</b>

References:

Column (A): Company Schedule C-1  
Column (B): Schedule GWB 11  
Column (C): Column (A) + Column (B)  
Column (D): Schedules GWB 2, Lines 29, 34 and 37  
Column (E): Column (C) + Column (D)



Global Water - Willow Valley Water Company (Willow Valley)  
Docket No. W-01732A-12-0315  
Test Year Ended December 31, 2011

Schedule GWB-12

**OPERATING INCOME ADJUSTMENT #1 - EXCESS WATER LOSS**

LINE  
NO.

1	One plus allowable water loss	110.00%
2	One plus actual water loss	123.40%
3	Allowable portion	89.14%
4	Disallowable portion	10.86%
5	Power Expense	43,747
6	Disallowance	\$ 4,751
7	Chemical Expense	55,422
8	Disallowance	\$ 6,018

Line 1: Maximum acceptable level of water losses

Line 2: Actual level of water losses

Line 3: Line 2 / line 3

Line 4: 1 minus line 4

Line 6: Line 1 times line 5

Lines 1 - 6: See also testimony GWB

**OPERATING INCOME ADJUSTMENT #2 - BAD DEBT EXPENSE**

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF RECOMMENDED*
1		\$ 8,251	\$ (4,175)	\$ 4,075

References:

Column (A), Company Workpapers

Column (B): Testimony GWB

Column (C): Column (A) + Column (B), Per Co Response  
 to Staff DR 5.8

Adjusted Test Year Revenues GWB-11	\$ 702,652
Bad Debt Expense Rate, per Staff	0.58%
Expected Bad Debt Expense	\$ 4,075
Co Proposed	\$ 8,251
	\$ (4,175)

OPERATING INCOME ADJUSTMENT #3 - RATE CASE EXPENSE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF RECOMMENDED						
1		\$ 9,922	\$ (4,880)	\$ 5,042						
<b>Company Proposed Rate Case Expense</b>										
		Total	Palo Verde	Santa Cruz	Town Division	Willow Valley	Tonopah	Buckeye	WUNS	
2	Allocation Percentages		39.86%	40.32%	13.45%	3.78%	0.82%	1.58%	0.19%	
<b>Desert Mountain Analytical Services</b>										
3	Services	\$ 122,063	\$ 48,652	\$ 49,218	\$ 16,420	\$ 4,616	\$ 996	\$ 1,927	\$ 234	
4	Insight Consulting, LLC	\$ 216,000	\$ 86,064	\$ 87,095	\$ 29,057	\$ 8,168	\$ 1,762	\$ 3,410	\$ 413	
5	Roshka Dewulf & Patten, PLC	\$ 370,303	\$ 147,597	\$ 149,313	\$ 49,814	\$ 14,004	\$ 3,021	\$ 5,846	\$ 709	
6	Ullmann & Company P C	\$ 78,809	\$ 31,412	\$ 31,777	\$ 10,602	\$ 2,980	\$ 643	\$ 1,244	\$ 151	
7	Total	\$ 787,174	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506	
<b>Amortization over 3 years:</b>										
8	Year 1	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,296	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502	
10	Year 2	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,296	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502	
11	Year 3	\$ 262,391	\$ 104,585	\$ 105,801	\$ 35,296	\$ 9,923	\$ 2,140	\$ 4,142	\$ 502	
12	Totals	\$ 787,174	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506	
<b>Staff Recommended Rate Case Expense</b>										
13	Description	Total	Palo Verde	Santa Cruz	Town Division	Willow Valley	Tonopah	Buckeye	WUNS	
14	Staff Recommended Amount	\$ 400,000	\$ 159,434	\$ 161,287	\$ 53,809	\$ 15,127	\$ 3,263	\$ 6,315	\$ 765	
<b>Amortization:</b>										
15	Year 1	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255	
16	Year 2	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255	
17	Year 3	\$ 133,333	\$ 53,145	\$ 53,762	\$ 17,936	\$ 5,042	\$ 1,088	\$ 2,105	\$ 255	
18	Totals	\$ 400,000	\$ 313,756	\$ 317,402	\$ 105,893	\$ 29,768	\$ 6,421	\$ 12,427	\$ 1,506	
19	Adjustment Total, by System	\$ (129,056)	\$ (51,441)	\$ (52,038)	\$ (17,361)	\$ (4,881)	\$ (1,053)	\$ (2,037)	\$ (247)	

References:  
Column (A), Company Workpapers  
Column (B): Line 20 for respective system  
Column (C): Line 16 for respective system

**OPERATING INCOME ADJUSTMENT #4 - EXPENSE NORMALIZATIONS**

<u>LINE NO.</u>	<u>ACCT / DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED*</u>
1	601 Salary and Wages - Employees	\$ 263,312	\$ (15,369)	\$ 247,943
2	620 Materials and Supplies	\$ 36,002	\$ (15,453)	\$ 20,549
3	630 Outside Services	\$ 97,501	\$ (17,749)	\$ 79,752
4	675 Miscellaneous Expenses	\$ 24,563	\$ (9,383)	\$ 15,180
		<u>\$ 421,378</u>	<u>\$ (57,954)</u>	<u>\$ 363,424</u>

References:

Column (A), Company Workpapers

Column (B): Testimony GWB

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

Global Water - Willow Valley Water Company (Willow Valley)  
Docket No. W-01732A-12-0315  
Test Year Ended December 31, 2011

Schedule GWB-15B

**OPERATING INCOME ADJUSTMENT #5 - WATER TESTING EXPENSE**

<u>LINE NO.</u>	<u>ACCT / DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED</u>
1	Contractual Services - Testing	\$ 20,993	\$ (5,285)	\$ 15,708

References:

Column (A), Company Workpapers

Column (B): Testimony GWB

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

OPERATING INCOME ADJUSTMENT #6 - DEPRECIATION EXPENSE

LINE NO.	ACCT. NO.	DESCRIPTION	[A] PLANT BALANCE	[B] DEPRECIATION RATE	[C] DEPRECIATION EXPENSE
1		<u>PLANT IN SERVICE:</u>			
2	303	Land and Land Rights	\$ 18,293	0.00%	-
3	304	Structures and Improvements	464,273	3.33%	15,460
4	306	Lake, River and Other Intakes	-	2.50%	-
5	307	Wells and Springs	1,623,786	3.33%	54,072
6	309	Supply Mains	5,441	2.00%	109
7	310	Power Generation Equipment	10,751	5.00%	538
8	311	Pumping Equipment	537,335	12.50%	67,167
9	320	Water Treatment Equipment	-	0.00%	-
10	320.1	Water Treatment Plant	303,188	3.33%	10,096
11	320.2	Solution Chemical Feeders	269,677	20.00%	53,935
12	330	Distribution Reservoirs and Standpipes	-	0.00%	-
13	330.1	Storage Tanks	220,751	2.22%	4,901
14	330.2	Pressure Tanks	45,148	5.00%	2,257
15	331	Transmission and Distribution Mains	670,561	2.00%	13,411
16	333	Services	96,681	3.33%	3,219
17	334	Meters and Meter Installations	533,416	8.33%	44,434
18	335	Hydrants	47,803	2.00%	956
19	336	Backflow Prevention Devices	1,024	6.67%	68
20	339	Other Plant and Miscellaneous Equipment	20,318	6.67%	1,355
21	340	Office Furniture and Equipment	22,646	6.67%	1,510
22	341	Transportation Equipment	21,527	20.00%	4,305
23	343	Tools, Shop and Garage Equipment	43,388	5.00%	2,169
24	344	Laboratory Equipment	9,508	10.00%	951
25	345	Power Operated Equipment	38,925	5.00%	1,946
26	346	Communication Equipment	13,877	10.00%	1,388
27	347	Miscellaneous Equipment	10,223	10.00%	1,022
28	348	Other Tangible Plant	3,937	5.00%	197
29	390	Office Furniture & Equipment	625	5.00%	31
30			<u>5,033,102</u>		<u>285,500</u>
31		Less: Non Depreciable Plant			
32		Land and Land Rights	18,293		
33		Net Depreciable Plant and Depreciation Amounts	\$ 5,014,809		\$ 285,500
34					
35					
36		Amortization of CIAC	\$ -	5.6931%	\$ -
37		Staff Recommended Depreciation Expense			\$ 285,500
38		Company Proposed Depreciation Expense			\$ 200,668
39		Staff Adjustment			\$ 84,832

<u>References:</u>	
Col [A]	Schedule GWB-4
Col [B]	Proposed Rates per Staff Engineering Report
Col [C]	Col [A] times Col [B]



Global Water - Willow Valley Water Company (Willow Valley)  
Docket No. W-01732A-12-0315  
Test Year Ended December 31, 2011

Schedule GWB-17

OPERATING INCOME ADJUSTMENT #7 - INCOME TAXES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED</u>
1	Income Taxes	<u>\$ (106,730)</u>	<u>\$ 11,486</u>	<u>\$ (95,245)</u>

References:

Column (A): Company Schedule C-2  
Column (B): Testimony GWB  
Column (C): Column (A) + Column (B),  
see also Sch. GWB-2, line 48

**OPERATING INCOME ADJUSTMENT #8 - PROPERTY TAX EXPENSE GRCF COMPONENT**

LINE NO.	DESCRIPTION	[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues - 2011	\$ 702,652	\$ 702,652
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	1,405,305	1,405,305
4	Staff Adjusted Test Year Revenues - 2011	702,652	
5	Staff Recommended Revenue		1,106,723
6	Subtotal (Line 4 + Line 5)	2,107,957	2,512,028
7	Number of Years	3	3
8	Three Year Average (Line 5 / Line 6)	702,652	837,343
9	Department of Revenue Multiplier	2	2
10	Revenue Base Value (Line 7 * Line 8)	1,405,305	1,674,686
11	Plus: 10% of CWIP	47	47
12	Less: Net Book Value of Licensed Vehicles	340	340
13	Full Cash Value (Line 10 + Line 11 - Line 12)	1,405,012	1,674,393
14	Assessment Ratio	21.0%	21.0%
15	Assessment Value (Line 13 * Line 14)	295,052	351,622
16	Composite Property Tax Rate	11.5000%	11.5000%
17	Staff Test Year Adjusted Property Tax Expense (Line 15 * Line 16)	\$ 33,931	
18	Company Proposed Property Tax	\$ 33,931	
19	Staff Test Year Adjustment (Line 17 - Line 18)	\$ 0	
20	Property Tax on Staff Recommended Revenue (Line 15 * Line 16)		\$ 40,437
21	Staff Test Year Adjusted Property Tax Expense (Line 17)		\$ 33,931
22	Increase in Property Tax Due to Increase in Revenue Requirement		\$ 6,506
23	Increase in Property Tax Due to Increase in Revenue Requirement (Line 22)		\$ 6,506
24	Increase in Revenue Requirement		\$ 404,071
25	Increase in Property Tax Per Dollar Increase in Revenue (Line 23 / Line 24)		1.61000%

**REFERENCES:**

Line 15: Composite Tax Rate, per Company  
Line 18: Company Schedule C-1, Line 36



BEFORE THE ARIZONA CORPORATION COMMISSION

BOB STUMP  
Chairman  
GARY PIERCE  
Commissioner  
BRENDA BURNS  
Commissioner  
BOB BURNS  
Commissioner  
SUSAN BITTER SMITH  
Commissioner

<p>IN THE MATTER OF THE APPLICATION OF VALENCIA WATER COMPANY – TOWN DIVISION FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.</p>	<p>DOCKET NO. W-01212A-12-0309</p>
<p>IN THE MATTER OF THE APPLICATION OF GLOBAL WATER – PALO VERDE UTILITIES COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.</p>	<p>DOCKET NO. SW-20445A-12-0310</p>
<p>IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF NORTHERN SCOTTSDALE, INC. FOR APPROVAL OF A RATE INCREASE.</p>	<p>DOCKET NO. W-03720A-12-0311</p>
<p>IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH, INC. FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.</p>	<p>DOCKET NO. W-02450A-12-0312</p>

IN THE MATTER OF THE APPLICATION OF  
VALENCIA WATER COMPANY – GREATER  
BUCKEYE DIVISION FOR THE  
ESTABLISHMENT OF JUST AND  
REASONABLE RATES AND CHARGES FOR  
UTILITY SERVICE DESIGNED TO REALIZE A  
REASONABLE RATE OF RETURN ON THE  
FAIR VALUE OF ITS PROPERTY  
THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-02451A-12-0313

IN THE MATTER OF THE APPLICATION OF  
GLOBAL WATER – SANTA CRUZ WATER  
COMPANY FOR THE ESTABLISHMENT OF  
JUST AND REASONABLE RATES AND  
CHARGES FOR UTILITY SERVICE DESIGNED  
TO REALIZE A REASONABLE RATE OF  
RETURN ON THE FAIR VALUE OF ITS  
PROPERTY THROUGHOUT THE STATE OF  
ARIZONA.

DOCKET NO. W-20446A-12-0314

IN THE MATTER OF THE APPLICATION OF  
WILLOW VALLEY WATER COMPANY FOR  
THE ESTABLISHMENT OF JUST AND  
REASONABLE RATES AND CHARGES FOR  
UTILITY SERVICE DESIGNED TO REALIZE A  
REASONABLE RATE OF RETURN ON THE  
FAIR VALUE OF ITS PROPERTY  
THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-01732A-12-0315

DIRECT

TESTIMONY

OF

JAMES R. ARMSTRONG

CHIEF ACCOUNTANT

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

JULY 8, 2013

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**EXECUTIVE SUMMARY**  
**VALENCIA WATER COMPANY-TOWN DIVISION, ET AL**  
**DOCKET NO. W-01212A-12-0309, ET AL**

Staff Witness James Armstrong supports Staff's recommendations regarding the regulatory treatment to be given to the funds received by the Global Water Parent entity ("Global Parent") under the Infrastructure Coordination and Financing Agreements ("ICFAs" or "ICFA Agreements") entered into between Global Parent and various real estate developers. The ICFA is unique to Global Parent. Staff is not aware of any other water, or wastewater service provider in the *United States that utilizes these agreements*. Global Parent has used these agreements as a means to implement what it calls its "Total Water Management" Plan. In his testimony filed in the Global ACC-regulated utilities ("Global Parent Utilities") last rate case, Global Parent Utilities witness Mr. Hill described an ICFA as a voluntary contract between Global Parent and a landowner which provide for Global Parent to coordinate the planning, financing and construction of off-site water, wastewater and recycled water plant. According to Mr. Hill, the Global Parent Utilities will own and operate this plant when construction is complete.

To-date, Global Parent has entered into approximately 180 ICFA-like agreements. The ICFA agreements encompass the following systems in the City of Maricopa in Pinal County: Palo Verde (wastewater) and Santa Cruz (water). In addition, there are several ICFAs related to the following systems: Greater Tonopah (water) and Hassyampa Utility Company ("HUC") (wastewater), and Picacho Cove. HUC and Picacho Cover have no customers at this time and are not included in this rate case. Through December 31, 2012, Global Parent received approximately \$69 million in fees under the terms of these ICFA agreements. Estimates indicate that Global Parent could be entitled to receive as much as \$1.476 billion in ICFA fees over several decades. The Global Parent Utilities applications addresses only the ICFA fees received through the end of 2011, which approximated \$67 million, however Staff's recommendations address all ICFA fees received through the end of 2012 or approximately \$69 million.

In the current consolidated Global Parent Utilities rate filings, Staff recommends that the Commission order Global Parent not to enter into any new ICFA agreements. Staff believes there are entirely too many issues, risks, and unanswered questions related to the continuing reliance on ICFAs as the means used to financially support regional water and wastewater infrastructure development. Staff also believes that the ICFAs blur the line between Global Parent and its operating utilities, its Global Parent Utilities. The uncertainty and open ended nature of these agreements leave both Global Parent, the *Global Parent Utilities*, and its ratepayers subject to significant exposure and risk.

In Global Parent Utilities' 2009 rate case, the Commission in Decision No. 71878, treated \$32 million of the ICFA funds as supporting excess capacity; and set that investment aside for future ratemaking treatment within the Palo Verde and Santa Cruz operating divisions. The balance of the ICFA funds received were imputed as Contributions in Aid of Construction ("CIAC") and deducted from the rate base of the three systems covered by the then existing ICFA agreements (Santa Cruz, Palo Verde and Greater Tonopah). However, the Commission

indicated in Decision No. 71878 that it was leaving open the possibility that the treatment afforded ICFA fees could be different in a future rate case.

The Global Parent Utilities argue for reversal of the ICFA fee-related decisions made by the Commission in Decision No. 71878, issued in the Global Parent Utilities' consolidated 2009 rate case filings.

Staff recommends that the ICFA fees previously designated as supporting Global Parent's excess capacity investments no longer be treated in this manner. From Staff's analysis, it cannot be concluded with specificity where any portion of the ICFA funds were utilized, therefore Staff recommends that this previous ICFA fee use designation be ended. Staff further recommends that the Commission approve hook-up fee tariffs for all of Global Parent Utilities. Mr. Armstrong explains how the ICFA fees received through the end of 2012 should be imputed as hook-up fees for ratemaking purposes, and he explains Staff's recommendations regarding how future ICFA fees would be linked to the payments required under the new hook-up fee tariffs. Mr. Armstrong's testimony discusses the need to segregate funds within the regulated utilities to ensure that the money needed for infrastructure development will be there when needed. The various measures recommended by Mr. Armstrong are meant to protect and safeguard the utilities' ratepayers from any exposure and risk that they may now face under the ICFAs.

Finally, Mr. Armstrong also discusses financial gains generated by Global Parent's non-ACC-regulated affiliates related to the early cash-outs of developer line extension refunds, and Mr. Armstrong recommends that Global Parent be directed by the Commission to develop and submit a Code-of-Conduct Policy addressing the parameters of acceptable business activities engaged in between non-regulated affiliates and the ACC-regulated Global Parent Utilities.

1 **INTRODUCTION**

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

3 A. My name is James R. Armstrong. I am the Chief Accountant employed by the Arizona  
4 Corporation Commission (“ACC” or “Commission”) in the Utilities Division (“Staff”).  
5 My business address is 1200 West Washington, Phoenix, Arizona 85007.

6  
7 **Q. Please describe your educational background and professional experience.**

8 A. I hold a Bachelor of Science degree with a concentration in Finance, and a Master of  
9 Business Administration degree with a concentration in Accounting, both from Kansas  
10 State University. I am a Certified Public Accountant. My professional experience  
11 includes serving on the staff of the Kansas Corporation Commission, the staff of the  
12 Residential Utility Consumer’s Office in Arizona, and on the staff of the Oklahoma  
13 Corporation Commission. In addition, I worked as Manager of Rates for Oklahoma  
14 Natural Gas Company for approximately twelve years, and for approximately two years, I  
15 was a regulatory consultant to Westar Energy operating out of Topeka, Kansas. I joined  
16 the ACC Staff in September, 2012 as the Chief Accountant for the Utilities Division.

17  
18 **SCOPE OF TESTIMONY**

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

20 A. I will address and support Staff’s recommendations related to Global Parent’s use of  
21 Infrastructure Coordination and Financing Agreements (“ICFAs” or “ICFA agreements”)  
22 and to what I believe are some important considerations the Commission should weigh in  
23 addressing ICFA-related questions or issues.

24  
25 During the course of my testimony I will refer to various Global Parent business units.  
26 Generally my discussions will address the Global Water Parent business entity as “Global



1 Parent.” References to the Global Parent Utilities will refer to one or more of Global  
2 Parent’s ACC-regulated water and wastewater operating entities. Generally a reference to  
3 the pending docket or instant docket should be interpreted as a reference to one or more of  
4 the six rate change filings docketed by the Global Parent Utilities, which were  
5 consolidated for processing by ACC Procedural Order on November 30, 2012.

6  
7 Finally, I will also be providing comments to the Commission regarding financial gains  
8 generated by Global Parent’s **unregulated business** from selling the contractual rights to  
9 receive future refunds associated with certain line extension agreements of the Global  
10 Parent Utilities.

11  
12 **INTRODUCTORY ICFA AGREEMENT DISCUSSION**

13 **Q. Mr. Armstrong, please begin by explaining what an “ICFA” agreement” is?**

14 **A.** In direct testimony filed by Global Parent Utilities witness Mr. Hill in Docket No.  
15 SW-20445A-09-0077 et. al. the following overview was used to describe the ICFA  
16 agreements:

17  
18 An ICFA (Infrastructure Coordination and Financing Agreement) is a voluntary  
19 contract between Global Parent and a landowner. These contracts provide for  
20 Global Parent to coordinate the planning, financing and construction of off-site  
21 water, wastewater and recycled water plant. The Global Utilities will own and  
22 operate this plant when construction is complete. Under the ICFAs, Global  
23 Parent is responsible for funding both the *planning and construction of water,*  
24 *wastewater and recycled water plant.* The landowners who enter into the ICFAs  
25 agree to cooperate with Global Parent’s plant planning and construction  
26 process. ICFAs formalize the cooperation between the landowner and Global,  
27 *but also provide fees which allow Global Parent to impress conservation and*  
28 *consolidation into the regional planning initiatives.* These fees are intended to  
29 recover a portion of the carrying costs for the very expensive facilities required  
30 to implement effective water conservation and, in some cases, to fund Global  
31 Parent’s acquisition of existing utilities.

1 The fees referred to in this explanation are also called "landowner payments." The  
2 amount of the landowner payments vary from agreement to agreement but generally run  
3 from \$1,950 to \$5,500 per equivalent dwelling unit. Global Parent has entered into  
4 approximately 180 separate ICFA (or ICFA-like) agreements, and through the end of 2011  
5 the company received approximately \$67 million in ICFA fees from developers and  
6 landowners. An additional \$2.4 million in ICFA fees was received during 2012.  
7 Estimates suggest that Global Parent could be entitled to receive (over several decades) as  
8 much as \$1.476 billion in ICFA fees under the provisions of these existing agreements.  
9 (Support for calculation these average ICFA landowner fees, and for the estimated total  
10 ICFA fees that could be received, can be found within Attachment D to my direct  
11 testimony.)

12  
13 The level of future ICFA fees is entirely dependent upon if, and when, the underlying  
14 planned residential developments actually build out, and upon the landowner fee cost  
15 escalators applicable to future ICFA fee receipts.

16  
17 In my opinion, other important considerations related to understanding the structure and  
18 function of the Global Parent ICFA agreements include the following:

- 19 1. Global Parent was created in the housing boom and the ICFA agreements were  
20 an outgrowth of that economic environment;
- 21 2. The ICFA arrangements only have value because of the underlying ACC-  
22 authorized Certificates of Convenience and Necessity ("CCN") and the  
23 agreements contain express provisions for termination if the Commission does  
24 not grant the underlying regulated global utilities a CCN for the area covered  
25 by the ICFA;
- 26 3. ICFAs are "voluntary contracts" between Global Parent and a landowner;

- 1 4. ICFAs are structured to take responsibility for water planning away from  
2 developers/homebuilders;
- 3 5. ICFAs are different from main extension agreements – ICFA funds can be used  
4 to support regional planning, while main extension agreement funds are limited  
5 to paying for facilities;
- 6 6. The structure of the ICFA contracts arguably blur the line between the Global  
7 Parent holding company and the Global Parent Utilities;
- 8 7. ICFAs are not a tax-efficient source of funding;
- 9 8. ICFAs have the potential for generating extremely large, but uneven, cash  
10 inflows for Global Parent (corresponding directly to the receipt of ICFA  
11 funds), and Global Parent has committed to planning, coordinating,  
12 developing, and financing large infrastructure investments. The timing  
13 associated with Global Parent’s numerous commitments under the ICFAs, and  
14 the cash outflows associated with meeting these commitments also involve  
15 extremely large, but uncertain and uneven, cash flow requirements;
- 16 9. Global Parent has never contended that ICFAs are non-jurisdictional to the  
17 ACC;
- 18 10. Developers have provided ICFA funds to Global Parent which, comingled with  
19 equity and debt provided by Global Parent, have been used for the provision of  
20 utility service, whether through acquisitions, carrying costs, or plant  
21 construction; and,
- 22 11. In Decision No. 71878, the Commission left open the possibility that the  
23 treatment afforded ICFAs could be different in a future rate case.

24  
25 Source references for each of these ICFA agreement-related considerations are presented  
26 in Attachment A to my direct testimony.

1    **Q.    Mr. Armstrong, you made reference to additional ICFA fees of approximately \$2.4**  
2           **million received during 2012.  Were these additional fees captured in the Global**  
3           **Parent Utilities' original rate change applications?**

4    A.    No.  The company's filing only addressed the ICFA fees received through the end of 2011  
5           (the chosen test year is the calendar year ending December 31, 2011).  However, Staff's  
6           ICFA discussions and recommendations address all ICFA fees received through the end of  
7           2012.

8  
9    **Q.    Mr. Armstrong, do you have a Schedule that summarizes the ICFA-related pro**  
10           **forma adjustments proposed by the Global Parent Utilities for its various operating**  
11           **entities?**

12   A.    Yes, Attachment B shows the ICFA-fee links between the Global Parent Utilities' actual  
13           rate base levels at the end of the test year, and the rate base levels proposed in the  
14           Company's rate filings.  The data included in Attachment B was derived from the Global  
15           Parent Utilities' rate filings and through informal inquiries made to the Global Parent  
16           Utilities.  Column A presents the rate base levels from the Commission's Order in the last  
17           Global Parent Utilities rate case (Docket No. SW-20445A-09-0077 et al).  Column H  
18           presents the as filed rate base in the current rate case.  Columns D, E, and G all relate to  
19           the ICFA fee pro forma adjustments proposed by the Global Parent Utilities.  Attachment  
20           B is for informational purposes only; the data does not represent specific findings or  
21           recommendations being made by Staff.

1 **Q. Please summarize the Global Parent Utilities' current request to the Commission**  
2 **regarding the funds received under these ICFA agreements.**

3 A. As discussed by witness Mr. Walker, the Company continues to support using ICFA funds  
4 to cover the carrying costs on regional infrastructure investments, funding acquisitions and  
5 acquisition premiums, using ICFA funds to offset the income tax liability generated for  
6 the Global Parent by ICFA funds. Further, the company supports allowing any residual  
7 funds to be imputed as Contributions in Aid of Construction ("CIAC"), which would be  
8 recognized as a reduction to rate base. The Global Parent Utilities seeks the reversal of  
9 the decision reached by the Commission in the last rate case that treated approximately  
10 \$25 million of ICFA fees as CIAC.

11  
12 **Q. Has Global Parent's rationale and support of its ICFAs evolved over time?**

13 A. Yes, Global Parent has placed varying levels of emphasis on the importance of, or the  
14 relative significance of, the various possible applications for which ICFA funds could be  
15 used. For example, using ICFA funds to pay carrying costs on regional infrastructure  
16 investments was previously a primary focus of the company. In fact, on page 3, line 20, of  
17 the comments filed by Global Parent on June 24, 2006, in Docket No. 06-0149, it was  
18 noted that carrying costs were "central" to the ICFA agreements. In some ICFA  
19 agreements the required landowner payments are almost exclusively described as  
20 representing an approximation of the carrying costs associated with interest and  
21 capitalized interest associated with financing water and wastewater infrastructure for the  
22 benefit of the landowner until the infrastructure is included in rate base and thus  
23 generating revenues to cover these carrying costs. In the Global Parent Utilities' current  
24 arguments, the importance of carrying costs are just mentioned in passing (in Mr.  
25 Walker's direct testimony), whereas the primary focus is now on ICFA fee support for  
26 acquisitions and for the payment of income taxes.

1 In many regards the Global Parent's ICFA-issue discussions (and the responsive positions  
2 of the parties that have participated in previous ICFA-issue debates that played out in  
3 previous ACC dockets or water issue workshops) have been a moving target, which in my  
4 opinion has added to the complexity of the considerations the Commission must weigh in  
5 reaching its decision regarding the regulatory treatment of the ICFA funds in the pending  
6 Global Parent Utilities' rate filings.

7  
8 **STAFF'S ICFA ISSUE REVIEW PLAN**

9 **Q. Mr. Armstrong, can you provide an overview of the review process Staff used in**  
10 **developing its ICFA recommendations in this docket?**

11 **A. Yes. Staff's review process consisted of the following steps:**

- 12  
13 a. Reviewed current rate case filing support;  
14 b. Gathered ICFA-related data and information from past ACC dockets and water  
15 workshops;  
16 c. Held meetings with Global Parent personnel to discuss ICFA history, the  
17 Company's Total Water Management plan, and other ICFA-related matters;  
18 d. Reviewed discovery from a past Global Parent Utilities rate filing docket and  
19 issued discovery in the instant docket;  
20 e. Reviewed water system acquisition due diligence work papers at the Global Parent  
21 corporate office;  
22 f. Reviewed Ullmann & Company, P.A.'s attestation report on ICFAs;  
23 g. Reviewed select ICFA Agreements;  
24 h. Reviewed previous Staff Reports issued on the subject of ICFAs and alternative  
25 financing arrangements;  
26 i. Reviewed annual financial statements issued by Global Parent; and,  
27 j. Reviewed other financial data provided to Staff by Global Parent.

28  
29 As with most regulatory issue investigations, Staff incorporated additional steps as  
30 consideration of evidence warranted.

1 **Q. Mr. Armstrong, were Global Parent personnel generally cooperative and helpful in**  
2 **assisting Staff with its review of the ICFA issue?**

3 A. Yes. Staff has been pleased with the assistance provided by Company personnel and  
4 outside consultants, and with the company's willingness to help facilitate the quick  
5 turnaround of Staff's formal and informal requests for information.  
6

7 **ICFA REVENUE RECOGNITION**

8 **Q. Mr. Armstrong, the language within the ICFA agreements identifies a number of**  
9 **responsibilities that Global Parent, also referred to as the "Coordinator" in these**  
10 **agreements, is assuming or will be required to deliver, in response to the receipt of**  
11 **the ICFA landowner payments. Can you list some of these responsibilities or**  
12 **deliverables?**

13 A. Yes. Under these agreements Global Parent agrees to:  
14 1. Coordinate construction of services for water and wastewater treatment facilities;  
15 2. Finance and assume responsibility for the carrying costs associated with regional  
16 infrastructure investments;  
17 3. Arrange and coordinate the provision of utility services to the property;  
18 4. Obtain "will serve" letters for the provision of utility service to the property;  
19 5. Where applicable, help facilitate including landowner's property in an expanded  
20 CC&N;  
21 6. Execute line and main extension agreements with developers;  
22 7. Develop master utility plans; and,  
23 8. Facilitate water and wastewater service acquisitions and consolidations.  
24

25 Many of these Global Parent responsibilities are typically assumed directly by the  
26 regulated utilities responsible for providing water and/or wastewater to the area.

1 **Q. Has Staff been able to determine the portion of the individual landowner payments**  
2 **attributable to each of these deliverables?**

3 A. No. Unfortunately, the information received from Global Parent suggests that in  
4 negotiating the level of landowner payment required under any particular ICFA  
5 agreement, there was no effort made to match up a specific portion of each payment with  
6 the resulting obligation(s) Global Parent was incurring. Staff issued several data requests  
7 to Global Parent asking for information along this line, including STF-8.6, STF 8.10, STF  
8 8.11, and STF 8.12. (Refer to Attachment F to my direct testimony.) The Company's  
9 response was that the amount of the required landowner payments ultimately agreed to  
10 under each separate ICFA agreement was the result of very high level, or macro level,  
11 discussions/analysis, and that Global Parent did not perform detailed calculations or  
12 undertake any detailed cash-flow analysis in reaching agreement with regards to what  
13 would be a reasonable landowner payment under each agreement.

14  
15 **Q. Mr. Armstrong, are there generally accepted accounting principles ("GAAP") that**  
16 **might provide guidance allocating the ICFA landowner payments to the various**  
17 **obligations Global Parent has under these agreements?**

18 A. Normally yes. GAAP contain a number of accounting guidelines that have relevance.  
19 Revenue recognition is a cornerstone of accrual accounting, along with the matching  
20 principle. Generally revenues are recognized when obligations under the agreement have  
21 been met and when collectability is reasonably assured.

22  
23 For arrangements that have multiple deliverables, a relatively new GAAP (October 2009)  
24 could have relevance. This GAAP is codified as Topic 605. The purpose behind applying  
25 this accounting pronouncement, entitled "Multiple-Deliverable Revenue Arrangements,"  
26 is to provide a clearer picture of the economic realities of such arrangements. At first



1           glance it appears that application of this accounting guide could be of major significance  
2           to sorting through what level of revenue dollars should be assigned to each of the various  
3           ICFA deliverables. Unfortunately, the stated effective date for this pronouncement was  
4           applicable to arrangements entered into or materially modified in fiscal periods beginning  
5           on, or after, June 15, 2010, which is after the effective dates of all of the ICFA agreements  
6           of which I am aware. Global Parent, consistent with accounting community guidance, has  
7           indicated that it was the company's intent to apply this new GAAP to agreements entered  
8           into on or after July 1, 2010.

9  
10       **Q.    Why would having this ICFA fund breakout be helpful to the Commission?**

11       A.    In my opinion, having such external-purpose support would have helped define the  
12           relative value associated with the various deliverables (by valuing the revenues to be  
13           received in meeting the obligations Global incurred under each element of delivery) under  
14           the ICFAs and, in turn could have helped in determining a fair and reasonable  
15           allocation/assignment of the ICFA funds for ratemaking purposes.

16  
17       **Q.    Mr. Armstrong, do you have additional comments regarding your assessment of the**  
18           **ICFA landowner payments?**

19       A.    Yes, however, before further addressing the ICFA landowner payment issue, I would first  
20           like to discuss the approach taken by the Global Parent in its due diligence related to water  
21           and wastewater system acquisitions.

22  
23       **SUMMARY OF GLOBAL PARENT'S WATER AND WASTEWATER SYSTEM**  
24       **ACQUISITIONS**

25       **Q.    Please identify the Global Parent water system acquisitions.**

26       A.    The acquisitions included the following systems:

System	Year Acquired	Purchase Price **
Palo Verde Utilities Company and Santa Cruz	2004	\$ 33,762,427
Cave Creek and Pacer Equities	2005	7,025,924
Sonoran Utilities	2005	18,550,000
West Maricopa Combine	2006	54,369,889
Francisco Grande *	2006	8,000,000
CP Water	2006	1,250,000
Balterra Sewer	2008	1,456,765

1  
2 \* Global Parent recently informed Staff that the proposed Francisco Grande system  
3 acquisition has been cancelled.

4 \*\* Agrees with the figures presented on page 16 of the Ullmann Report.  
5

6 **WATER AND WASTEWATER SYSTEM ACQUISITION DUE DILIGENCE**

7 **Q. Mr. Armstrong, you previously noted that you reviewed Global Parent's due**  
8 **diligence support related to these acquisitions. Please explain Staff's findings**  
9 **regarding the due diligence Global Parent engaged in when acquiring these water**  
10 **and wastewater systems.**

11 **A.** In response to Staff Data Request No. STF-2.1 (d), Staff was offered access to the Global  
12 Parent's due diligence work papers related to these acquisitions. I reviewed these  
13 documents on March 20, 2013, at the company's corporate office in North Phoenix.

14  
15 Upon my arrival, I was provided access to 21 boxes of documents and a copy of the "Due  
16 Diligence Checklists" used by Global Parent in connection with these potential  
17 acquisitions. I was also provided an index that covered 19 of the 21 boxes of information  
18 made available for my review. Each checklist contained almost 200 steps. Global Parent  
19 used consultants to complete many of these steps. Of particular interest was the detail of

1           these due diligence efforts. Staff found discussions regarding the existence of office  
2           equipment leases with payments as low as \$40 a month. Staff also found evidence  
3           indicating that future capital expenditure requirements were evaluated as part of Global  
4           Parent's Due Diligence efforts.

5  
6           Staff's review of these due diligence work papers was not designed to re-evaluate Global  
7           Parent's ultimate decision to acquire a particular acquisition target. I was primarily  
8           interested in determining the depth and scope of the company's due diligence efforts.

9  
10       **Q. Mr. Armstrong, how would you compare your findings related to Global Parent's**  
11       **water system acquisition due diligence and the business decision due diligence**  
12       **associated with negotiating the size of the landowner payments under the ICFA**  
13       **agreements?**

14       **A.** Based upon the depth of the landowner payment negotiations revealed in response to  
15       Staff's discovery, I concluded that the approaches taken appear to be very different.

16  
17       As I previously noted, the company's response regarding how the level of landowner  
18       payments were negotiated indicated that the size of the required landowner payments  
19       ultimately agreed to under each ICFA agreement was the result of very high level, or  
20       macro level, discussions or analysis. Such response further indicated that Global Parent  
21       did not perform detailed calculations or undertake any detailed cash-flow analysis in  
22       reaching agreement with regard to what a reasonable landowner payment would be under  
23       each agreement. Conversely, the due diligence undertaken by the Global Parent with  
24       regards to possible acquisitions appears to have involved very detailed analysis of  
25       economic, legal, and financial considerations.

1 This contrast is startling when we consider the fact that the water system acquisitions  
2 involve less than \$125 million in initial financial commitments, while Global Parent's  
3 direct long-term delivery obligations under the ICFA agreements could exceed \$1.4  
4 billion, since Global Parent has committed to providing infrastructure investments to make  
5 its Total Water Management plans a reality in the areas covered by the ICFAs. The  
6 magnitude of Global Parent's ultimate obligations under the ICFAs could be measured in  
7 the billions of dollars when we include both Global Parent's direct obligations and the  
8 infrastructure investments that could be partially supported through line extension  
9 agreements.

10  
11 **ICFA AGREEMENT-RELATED CASH FLOW CONCERNS**

12 **Q. Mr. Armstrong, please expand upon the potential significance of this finding.**

13 A. The timing and magnitude of the revenue/cash inflows from the ICFA landowner  
14 payments are going to be very different from the cash outflows required by Global  
15 Parent's commitments under these agreements.

16  
17 Anytime a going concern is faced with significant cash flow timing differences, such as  
18 when cash receipts or inflows occur far ahead of the future required cash outflows, caution  
19 must be exercised to assure that money is not spent on other indulgences, leaving the bank  
20 accounts empty (so to speak) when it comes time to actually fund the entity's obligations.

21  
22 **Q. Mr. Armstrong, would even the prospect of not having funds available to meet future  
23 financial commitments represent a risk that Global Parent's management should be  
24 cognizant of, proactively concerned about, and preemptively addressing?**

25 A. Yes.

1     **Q.    Did you find evidence that Global Parent’s management is aware of the fact that**  
2     **both the water and wastewater industries in general and Global Parent in particular,**  
3     **face significant financial, business, environmental, and other types of risks going**  
4     **forward?**

5     A.    Yes.  Such risks are identified and discussed in detail in Global Parent’s financial  
6     statement footnotes.  They were also identified and discussed in detail in the company’s  
7     December 16, 2010, common stock placement prospectus.

8  
9     **Q.    Mr. Armstrong, does the fact that “ICFAs are structured to take responsibility for**  
10    **water system planning away from homebuilders,” increase the capital risk exposure**  
11    **of Global Parent?**

12    A.    Yes.  Staff believes it is logical to conclude that the shift of this capital investment risk to  
13    Global Parent is one of the major incentives to developers for entering into ICFA  
14    agreements.  Obviously such a transfer of responsibility away from developers increase  
15    the level of risks being assumed by Global Parent.

16  
17    The existence of this capital risk exposure was discussed in some detail on page 4 of the  
18    comments filed by Global Parent in Docket No. W-00000C-06-0149, the generic  
19    evaluation of the regulatory impact from the use of non-traditional financing arrangements  
20    by water utilities and their affiliates, opened by ACC Legal Staff memorandum in March  
21    of 2006.  A copy of this page is contained in Attachment A to my direct testimony under  
22    the support tab for important ICFA agreement consideration No. 4

1     **Q.    Has the company provided evidence showing that it has, or is, assessing its**  
2     **obligations under the ICFAs and the business and financial risks associated with the**  
3     **obligations?**

4     A.    Based upon the responses provided by the company to Staff data request No. STF-13-7  
5     issued on this subject, I conclude that, to date, the Company's assessment of these risks  
6     may be less than adequate. For example, STF-13-7 (a) asks, "Did Global undertake a  
7     formal cash flow forecast related to the receipt of ICFA funds and the outflows that were  
8     going to be required as Global meets its short and long-term obligations under the ICFA  
9     Agreements? Please explain." The company's response was, "No, Global did not  
10    undertake a formal cash flow analysis related to the ICFAs."

11  
12    **Q.    Mr. Armstrong, would you also agree that most of the \$1.4 billion in potential ICFA**  
13    **agreement cash flows to the Global Parent is prospective, so that adequate cash flow**  
14    **planning could still be undertaken and managed?**

15    A.    Yes, and I would add that hopefully the Global Parent has this long-range cash flow  
16    planning consideration well in hand...or that it gets it well in hand very shortly. Never-  
17    the-less, Staff raised its concerns based upon the information it has been provided.

18  
19    It is important to note that even though the potential cash inflows from the ICFA  
20    agreements are substantial, the ICFA funds will not be sufficient to cover all of Global  
21    Parent's cash-flow requirements. Therefore, Staff would expect Global Parent's planning  
22    model to also incorporate other sources of funding, such as timely placed debt and equity  
23    issuances.

1 **STAFF RECOMMENDED CASH FLOW ANALYSIS AND OTHER REPORTING**

2 **Q. Mr. Armstrong, does Staff believe the risks associated with future ICFA**  
3 **arrangement cash flows, inclusive of the cash flows associated with the obligations**  
4 **falling to Global Parent as a result of signing these agreements, are significant**  
5 **enough to justify the Commission requiring the company to undertake ongoing and**  
6 **detailed cash flow analysis, and to provide the Commission with the results of this**  
7 **analysis on a recurring schedule?**

8 **A.** Yes. Staff recommends the Commission require Global Parent to provide detailed cash  
9 inflow and outflow forecasts on an annual basis, until otherwise ordered by the  
10 Commission. Such reports would need to be provided by May 1st of each year (or shortly  
11 after the company's formal annual report to shareholders has been distributed if this  
12 distribution occurs after May 1st) and each annual report would summarize the ICFA cash  
13 inflows and outflows from the previous calendar year. The report should also include  
14 forecasted annual cash inflows and outflows for at least each of the subsequent five years.  
15 The Global Parent should clearly spell out the assumptions used in making its forecasts.  
16 In subsequent years, the company should be required to identify and explain all changes  
17 that have been made to the previous assumptions. These annual cash flow forecasts  
18 should include assumptions made with regards to the sources of funds coming from debt  
19 and equity placements as well as from ICFAs and general operations. Global Parent  
20 should also be required to identify the individuals involved in making these forecasts, and  
21 for reviewing and approving these forecasts and the underlying assumptions.

1 **Q. To be clear, Staff is making this recommendation regarding annual reports to be**  
2 **required from the Global Parent even though the ACC-regulated water and**  
3 **wastewater utilities are not signatory parties to these ICFA agreements?**

4 **A.** Yes. As previously noted by Staff and other parties, there is, at best, a blurred line  
5 between the Global Parent and the regulated Global Parent Utilities under the  
6 provisions/obligations associated with these ICFA agreements. Global Parent caused this  
7 blurring by including deliverables traditionally provided by regulated utilities in the list of  
8 obligations Global Parent/ICFA agreement Coordinator. While I am certainly not  
9 attempting to express a legal opinion regarding the ICFA-linked Global Parent/Global  
10 Parent Utilities relationships, Staff believes it is clear that the ICFA agreement obligations  
11 of Global Parent have significant implications for the ACC-regulated entities. In my  
12 opinion, the presence of this vested regulated utility interest (and ratepayer interest)  
13 justifies the Commission requiring this reporting by Global Parent.

14  
15 Whether this information comes directly from Global Parent, from the Global Parent  
16 Utilities, or the Global Parent and the Global Parent Utilities collectively, we will leave up  
17 to the company. However, the information must be provided in a timely manner by a  
18 knowledgeable and responsible party; and its accuracy must be attested to by all of the  
19 regulated entities and Global Parent. In the end, Staff's interest in receiving and  
20 evaluating this cash flow data is related to the impact these ICFA related cash flows could  
21 have on both the immediate and long-term rates required to be paid by the rate payers of  
22 the Global Parent Utilities.



1 **Q. Mr. Armstrong do the Global Parent Utilities have vested interest in Global Parent's**  
2 **performance under the ICFAs?**

3 A. Yes, many of the ICFA agreement-related activities assumed by the Global Parent as the  
4 activity Coordinator would traditionally be the responsibility of the underlying Global  
5 Parent Utilities. Since the Global Parent has agreed to assume these responsibilities, the  
6 regulated utilities (and their ratepayers) have a vested interest in the Global Parent  
7 completing or meeting these responsibilities in a safe, reliable, financially responsible, and  
8 timely manner.

9  
10 Staff would also note that hook-up fees could have been used to fund and otherwise  
11 address many of the Coordinator responsibilities. The use of hook-up fees represent a  
12 more traditional infrastructure financing alternative that clearly falls under the  
13 Commission's jurisdiction.

14  
15 **Q. Mr. Armstrong, did Staff raise concerns regarding ICFA cash flows, and more**  
16 **specifically the tracking of ICFA funds, during the processing of the company's 2009**  
17 **rate case, Docket No. SW-20445A-09-0077, et al?**

18 A. Yes.

19  
20 **Q. Hasn't the Company indicated that it established separate segregated bank accounts**  
21 **for the ICFA funds in response to Staff's previous concerns?**

22 A. Yes. The establishment of separate accounts is discussed by Global Parent Utilities'  
23 witness Mr. Walker on page 19, lines 6 through 8. The establishment of these separate  
24 ICFA bank accounts at the conclusion of the Global Parent Utilities' last rate case was  
25 also addressed in the company's response to Staff Data Request No. STF-8.45.

1     **Q.    Has establishing these separate ICFA bank accounts helped to provide assurance**  
2           **that the ICFA funds received subsequent to their establishment will be available to**  
3           **meet the Global Parent’s ICFA-driven obligations in the years to come?**

4     A.    Unfortunately it has not. The company’s response to STF-8.45 indicates that once the  
5           funds are initially placed in the segregated ICFA bank accounts, the funds are then  
6           transferred out of these accounts and combined with the Company’s general bank account.  
7           The company provided Staff with “confidential” copies of the bank statements related to  
8           this segregated account and a review of those statements confirms that the funds deposited  
9           into this account are routinely (and almost immediately) transferred out of this account  
10          and into what Staff’s presumes is the company’s general purpose bank account.

11  
12          The limited ICFA fee segregation steps taken to date by the Global Parent are not  
13          adequate. Prospectively, a portion of the future ICFA cash inflows need to be truly  
14          separated from the Global Parent’s general bank account funds. Not truly separating these  
15          funds only heightens Staff’s concerns regarding how the future commitments under the  
16          ICFA agreements will be financed.

17  
18     **Q.    Mr. Armstrong, you are proposing that a further segregation of funds take place in**  
19           **this case; can you identify the portion of the future ICFA fees that would be subject**  
20           **to true cash balance segregation?**

21     A.    Yes. As I will discuss in detail later in my testimony, Staff recommends that the portion  
22           of future landowner payments that would, in turn, be imputed as “hook-up fees” would  
23           need to be separated from the Global Parent bank accounts and placed into the accounts  
24           established for hook-up fees at the utility company level. Such funds are to be used  
25           ONLY for regulated water/wastewater entity infrastructure investment needs as delineated  
26           in the Hook-up Fee Tariffs. There are also other potential funds to be received in

1 conjunction with main extension agreements, that should be segregated as well at the  
2 utility level.

3  
4 Global Parent would not be allowed to “borrow” these funds for its purposes.  
5

6 **Q. How can Staff recommend that the Commission place requirements on Global**  
7 **Parent when it is not a party to this Docket?**

8 **A.** Since Global Parent is a critical part of this case, Staff is recommending that it become a  
9 party to this proceeding.  
10

11 **STAFF RECOMMENDED TREATMENT OF ICFA FEES – FUTURE RECEIPTS AND**  
12 **CURRENT RECEIPTS**

13 **Q: Mr. Armstrong, is Staff making separate recommendations regarding the regulatory**  
14 **treatment to be given to the ICFA funds received through the end of 2012 and the**  
15 **future ICFA landowner payments to be received?**

16 **A.** Yes. Staff’s recommendations will address the ICFA funds received through December  
17 31, 2012, and the ICFA landowner payments to be received in the future under separate  
18 recommendations.  
19

20 **REGULATORY TREATMENT OF FUTURE ICFA AGREEMENT FUNDS**

21 **Q. Mr. Armstrong, please address Staff’s recommendations regarding the future receipt**  
22 **of ICFA landowner payments.**

23 **A.** First, Staff recommends that the Commission direct Global Parent to cease entering into  
24 new ICFA agreements. Staff believes there are entirely too many issues, risks, and  
25 unanswered questions related to the continuing reliance on new ICFA agreements as the

1 means used to financially support regional water and wastewater infrastructure  
2 development.

3  
4 Staff specifically recommends that hook-up fee tariffs be approved for all of the Global  
5 Parent Utilities' operations. The hook-up fee would be \$2,000 for every new meter set  
6 regardless of whether the new hook-up is located within an area covered by an ICFA  
7 agreement or not. This \$2,000 fee would apply to both water and wastewater new meter  
8 set requests. If a request for new service included both water service and wastewater  
9 service, the \$2,000 hook-up fee would apply to each service request (i.e., \$4,000 total).  
10 Attachment E to my testimony contains the standard hook-up fee tariff Staff is  
11 recommending.

12  
13 Staff witness Mr. Liu co-sponsors the Attachment E hook-up fee tariff.

14  
15 Generally, required hook-up fees are paid by the party requesting service. However, with  
16 regards to the receipt of future landowner payments under the existing ICFA's, Staff  
17 recommends that Global Parent be required to pay the hook-up fee out of the ICFA fees  
18 received. Such payment would need to be made to the appropriate underlying Global  
19 Parent Utility, and these hook-up fees would be maintained in separate bank accounts as  
20 required by the tariff. As previously noted, these funds could not be used by, or loaned to,  
21 the Global Parent and the funds must be used to support allowable infrastructure  
22 investments made by the regulated utility. The Global Parent Utilities must track the  
23 receipt and use of these funds in detail. In the future, the net unamortized hook-up fee  
24 balances would be recognized as rate base reductions to the extent such funds have been  
25 used to support actual used and useful rate base investments. Amortization of these hook-  
26 up fees would not begin until the funds were actually used to support rate base

1 investments. The hook-up fee amortization period would correspond to the depreciable  
2 life of the underlying asset, and the annual hook-up fee amortization would be recognized  
3 as an offset to recoverable depreciation expense when establishing the Company's annual  
4 cost of providing service to its customers. The Global Parent and Global Parent Utilities  
5 should submit a plan to the Commission for segregating these funds as well as other funds  
6 necessary to fund infrastructure to serve customers.

7  
8 **Q. How would the balance of the future ICFA fees be treated for rate making purposes?**

9 A. The balance of the ICFA funds ultimately received, after covering the required hook-up  
10 fee, would effectively be available for use by the Global Parent to cover infrastructure  
11 investment carrying costs, pay income taxes, fund system acquisitions, or fund the other  
12 deliverables required under the ICFA agreements.

13  
14 While it is Staff's recommendation that the Global Parent effectively maintain control and  
15 discretion over the use of these residual funds, the receipt and use of these residual funds  
16 would need to be identified and explained in the required annual cash flow reporting  
17 addressed earlier in my testimony.

18  
19 **STAFF RECOMMENDATIONS REGARDING ICFA FUNDS RECEIVED TO DATE**

20 **Q. Mr. Armstrong, can you provide a time period breakout of the ICFA fees cash flows  
21 received through the end of 2012?**

22 A. Yes. The following is a recap of the ICFA fees received through the end of 2012:  
23

1

<b>Time Period</b>	<b>ICFA Funds Received</b>
Through 2008 Per Order No. 71878 **	\$60,084,123
2009 – 2011	6,532,558
2012	<u>2,240,892</u>
Total	\$69,037,252

2

\*\* A minor variance exists in reconciling the figures referenced in this Order.

3

4

**Q. Mr. Armstrong, do you have an Attachment that particularizes the development of this \$69,037,252 in total ICFA fees received through the end of 2012?**

5

6

A. Yes. Please refer to Attachment C to my direct testimony. Column A of this Attachment shows the breakout of ICFA fees addressed in Exhibit B to Commission Decision No. 71878 issued in the 2009 consolidated Global Parent Utilities' rate cases. Columns B and C show the ICFA fees received since 2008 and column D presents the total ICFAs received through December 31, 2012. Column E of this Attachment shows Staff's ICFA/CIAC amortization through the end of 2012 so Column F represents the total net ICFA fees through the end of 2012.

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I would note that there is a small level of ICFA fees attributable to Global Parent Utility operations not being addressed in the currently consolidated rate case filings. These ICFA fees relate to Hassayampa Utility Company ("HUC") and Picacho Cove. The regulated utilities of Global which are not a part of this case are hereby put on notice that they will need to file hookup fee tariffs and that the same treatment of ICFAs Staff is recommending in this case will apply to them. To simplify matters, Global should consider bringing HUC and Picacho Cove into this case as well.

1 **Q. What is Staff's recommendation regarding ICFA fees received through the end of**  
2 **2012?**

3 **A.** Staff recommends that the ICFA fees received through 2012 be treated in the following  
4 manner:

5 1. The ICFA dollars previously attributed to supporting excess capacity (in  
6 Commission Decision No. 71878) would no longer be recognized as supporting  
7 this excess capacity. Within Exhibit B of this Decision, the total level of ICFAs  
8 supporting excess capacity was \$32,391,318. Within the Global Water Utilities'  
9 filings, the total level of ICFAs now shown as supporting excess capacity is  
10 \$39,000,655 (an increase of \$6,609,337). However, Staff recommends that the  
11 level of ICFAs effectively released should be held at the \$32,391,318 level  
12 identified in the previous Commission Decision. The Company acknowledged that  
13 its level of investment in this excess capacity infrastructure has not increased since  
14 the previous Commission finding, so no additional ICFAs have been needed to  
15 support this investment.

16  
17 For now, this investment is to remain classified as excess capacity, and Staff  
18 reserves its right to address the regulatory treatment to be afforded this investment  
19 in a future Global rate case when, and if, the investment is argued to be used and  
20 useful by the company.

21  
22 2. Staff recommends capturing \$23,580,646 in ICFA fee-related rate base reductions.  
23 Of this amount, \$10,718,719 is to be reduced from the Palo Verde system rate  
24 base, \$10,395,549 is to be recognized as a reduction to the Santa Cruz rate base,  
25 and \$2,466,378 is to be recognized as a Greater Tonopah system rate base  
26 reduction.

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These rate base reductions represent net imputed hook-up fee equivalents since the amounts are net of the amortization that would have been recorded through the end of 2012. These adjustments are presented in columns G and J of Attachment C to my direct testimony.

The hook-up fees, and accumulated hook-up fee amortization through December 31, 2012, for each system are as follows:

	<b>Greater Tonopah</b>	<b>Palo Verde</b>	<b>Santa Cruz</b>
<b>Gross Hook-Up Fee</b>	3,315,024	12,714,970	13,059,735
<b>Accumulated Amort.</b>	848,646	1,996,250	2,664,186
<b>Net Hook -Up Fees</b>	2,466,378	10,718,719	10,395,549

3. All remaining ICFA fees received through the end of 2012 are to be assumed to be available to the Global Parent to fund carrying costs, pay income taxes, fund acquisitions, or for any other coordinator deliverables addressed in the ICFA agreements.

ICFA landowner payments received after 2012, but before the approval of the referenced hook-up fee tariffs, would also be subject to the rate base imputation recommendations Staff is making regarding the regulatory treatment of ICFA fees received through the end of 2012. This would be done in the Global Parent Utilities' next rate case for the three systems covered by ICFA agreements – Palo Verde, Santa Cruz, and Greater Tonopah.



1 **Q. Mr. Armstrong, please provide more details regarding how Staff calculated the net**  
2 **imputed hook-up fee figures shown in columns G and J of your Attachment C.**

3 A. The following three considerations are the primary drivers in deriving these figures:  
4 Staff's \$2,000 recommended hook-up fee, the \$3,742 simple average ICFA fee level  
5 expected to be received over the full term of the ICFA agreements, and the \$2,778 simple  
6 average ICFA fee level received through the end of 2012.

7  
8 The actual receipt of the landowner fees by Global Parent are subject to certain "phase  
9 completion provisions" outlined in the respective ICFA Agreements, and the average fee  
10 received will vary by operating system, and the average fee received will vary by year.  
11 However, Staff believes using these simple averages is a reasonable accommodation for  
12 purposes of quantifying the net imputed hook-up fee rate base reductions in the pending  
13 consolidated Global Parent Utilities' rate filings.

14  
15 Staff also used the following relationships derived from the three considerations just  
16 noted. \$2,000 represents 53.45% of the average ICFA agreement fee while the simple  
17 average ICFA fee received through the end of 2012 only represents 74.24% of the average  
18 ICFA fee associated with all ICFA agreements.

19  
20 Thus, in calculating these rate base adjustments, Staff applied 39.68% ( $53.45\% * 74.24\%$   
21  $= 39.68\%$ ) to the total ICFA fees received through the end of 2012 and then captured the  
22 accumulated ICFA/CIAC amortization that would have been recorded through the end of  
23 2012 to reach these three rate base reductions recommendations. To derive the appropriate  
24 level of Accumulated Amortization to be captured, Staff utilized the effective annual  
25 depreciation rates applicable to each system provided to Staff by the Company. Work

1 papers supporting these calculations are included in Attachments B and C to my direct  
2 testimony.

3

4 **REGULATORY RECOGNITION OF ACQUISITION ADJUSTMENTS**

5 **Q. Mr. Armstrong, does Staff have any general comments regarding Global Parent**  
6 **Utilities' arguments related to the recognition of acquisition adjustments for rate**  
7 **making purposes?**

8 A. Yes. First, I would note that Global Parent Utilities are not seeking recognition of any  
9 level of acquisition premium as a rate base increase in its instant consolidated rate filings.  
10 The Global Parent Utilities attempt to build a general argument for recognition of  
11 acquisition premiums around the reality that, in some instances, small water company  
12 acquisitions may be in the public interest. However, the company does not tie the  
13 magnitude of the acquisition premium paid to any clear and quantifiable benefits to  
14 ratepayers. The company does not appear to attach any significance to the "amount" of  
15 the acquisition premium paid, as if it is not relevant at all. However, the magnitude of the  
16 premium is highly relevant.

17

18 With regards to the acquisition premiums paid by Global Parent, Staff would note that  
19 these premiums were paid in order to position Global Parent for future growth. Agreeing  
20 to pay these acquisition premiums represents risky investment decisions that should fall  
21 100% to the Company's stockholders, who could eventually recognize financial gains, as  
22 these acquired service territories build out, unless the Company can meet the factors set  
23 out in Citizens Utilities Company, Docket No. W-01032A-00-0192.

24

25 On page 6 of Paul Walker's direct testimony, he states in his arguments to the  
26 Commission regarding the use of ICFA funds to pay for acquisition premiums, "let the

1 beneficiary bear the burden.” Mr. Walker suggests that water service customers are the  
2 ultimate beneficiaries of these acquisitions. While Staff certainly hopes that customers do  
3 benefit from these acquisitions, the reality is that the ultimate beneficiaries associated with  
4 the paying of acquisition premiums are the stockholders and it is the stockholders who  
5 should bear this burden.

6  
7 **Q. Mr. Armstrong, to the best of your knowledge were any of the dollars paid in**  
8 **acquisition premiums used to improve the systems acquired or to address existing**  
9 **operational problems?**

10 A. No. The company acknowledged in response to Staff data request No. STF 8.44, that  
11 none of the paid acquisition premiums were used to address operational problems. Also  
12 company witness Mr. Walker noted on page 5, lines 1 and 2 of his direct testimony that  
13 the acquisition premiums funds were not invested in rate base.

14  
15 **Q. Mr. Armstrong, in general what criteria would need to be met before the**  
16 **Commission could consider including part of an acquisition premium in a regulated**  
17 **utility’s rate base?**

18 A. In Citizens Utilities Company Docket No. W-01032A-00-0192, Staff noted that recovery  
19 of any acquisition premium would need to be based upon the utility’s ability to  
20 “demonstrate that clear, quantifiable and substantial net benefits have been realized by  
21 ratepayers in the affected areas which would not have been realized had the transaction  
22 not occurred.” Staff continues to recommend that these criteria be met before it would  
23 even consider making a recommendation to the Commission that part, or all, of an  
24 acquisition premium be included in rate base. There may be other criteria Staff or the  
25 Commission would need to consider.

26

1 **STAFF COMMENTS REGARDING INDEPENDENT REVIEW OF ICFA**

2 **AGREEMENTS**

3 **Q. Mr. Armstrong, on page 2 of the direct testimony filed by Global Parent Utilities'**  
4 **witness Mr. Walker, a reference is made to an independent audit that was to be**  
5 **completed to address certain questions regarding the Global Parent ICFA**  
6 **Agreements. Does Staff have any comments to share with the Commission regarding**  
7 **the report that came out of that audit?**

8 **A.** Yes. The first, and perhaps one of the most important points Staff wants to make is that  
9 the engagement undertaken by Ullmann & Company, P.C. ("Ullmann") was not, and was  
10 never intended to be, an "audit." Use of the word audit is technically incorrect. While  
11 Staff understands that the term audit can be used in a very generic sense to mean any  
12 investigation conducted by a professional auditing firm, like a Certified Public Accounting  
13 firm, the accounting services undertaken by Ullmann were "attestations" and did not  
14 constitute an audit. An attestation is a written communication by a certified public  
15 accountant that expresses a conclusion about the reliability of an assertion that is the  
16 responsibility of another party.

17  
18 The Ullmann Report only addresses ICFA agreements and ICFA funds received through  
19 2008.

20  
21 Pages 8 through 12 of the Ullman Report show a list of ICFA agreements and ICFA-type  
22 agreements entered into by Global Parent and various developers. With the assistance of  
23 the company, Staff was able to roll the data forward in order to get a list of the ICFA  
24 agreements and ICFA fee receipts through the end of 2012. The only comment Staff has  
25 to share regarding this information is that the report does not make clear the fact that most  
26 future ICFA landowner payment amounts (the per unit fee amounts shown close to the

1 middle of these pages) are subject to CPI-type payment escalators, so the potential total  
2 future payments (shown in the far right column) could be substantially higher than the  
3 \$1,418,588,775 shown on page 12.  
4

5 **Q. Mr. Armstrong, does Staff have any comments regarding the Schedule of Net Plant**  
6 **Assets and Specified Cash Resources shown on page 14 of the Ullmann report?**

7 A. Yes. This Schedule appears to be the result of Agreed-Upon Procedure Step 3 (described  
8 on page 5 of this report). Staff generally believes the intent of this Schedule was to show  
9 that Global Parent could have funded all plant investment activity made during this time  
10 period through the non-ICFA sources of funding captured on this Schedule. While Staff  
11 would agree that the data as presented could lead one to that conclusion (there is still a  
12 relatively small funding shortfall shown on the initial version of this schedule), other  
13 source and use of funds schedules could have been developed based upon other "prime  
14 assumptions." In the Ullmann report the prime assumption (or goal) was to show that  
15 plant additions could have been funded through a reliance of non-ICFA funds. The results  
16 from this exercise do not really prove anything, though again I would agree that there is  
17 validity to the conclusion that this is one possibility. At a minimum, such a possible  
18 conclusion does add creditability to Staff's current recommendation (already discussed)  
19 that the ICFA funds previously designated by the Commission as supporting excess  
20 capacity CWIP can be "released" in the Commission's decision in the instant Global  
21 Parent Utilities' dockets.  
22

23 **Q. Can we then conclude from the Ullman report that the bulk of the ICFA funds were**  
24 **probably used to fund acquisitions?**

25 A. No, we cannot simply reach that conclusion based upon what Staff sees in this report.

1 **Q. Please explain why such a conclusion could be in error.**

2 A. The first problem is that the cash flow analysis prioritizes the use of funds and assumes  
3 that the non-ICFA sources of funds shown in the analysis are used to fund utility plant  
4 before any ICFA funds are used to fund plant. Such an assumption is inconsistent with  
5 reality. Since cash is fungible, no specific funding sources can be assigned to any specific  
6 use of funds. Instead, all sources of funds collectively provide a single pool of funds from  
7 which every use is funded as needed.

8  
9 Second, this source and use of funds statement is point-in-time specific. In this instance,  
10 the information summarized is as of the end of each respective calendar year. A detailed  
11 analysis of the company's day-to-day cash flow demands throughout the year would  
12 reveal a different picture than what we see only at year end.

13  
14 An example of this day-to-day timing consideration can be seen when looking at the data  
15 in the 2008 column. Staff notes the Global Parent apparently borrowed \$60,429,910 in  
16 short-term debt sometime during 2008. The data, as presented, suggests that this  
17 \$60,429,910 was used to fund the net plant additions made in 2008. While it would be  
18 logical to assume that these plant investments were made periodically throughout the year,  
19 it is also logical to assume that the short-term borrowing drawdowns did not match the  
20 cash outflows associated with the plant additions. Thus on any given day, the matchup  
21 associated with the company's actual infrastructure investment-related cash outflows and  
22 the cash inflows noted on this schedule could have been much different than is shown at  
23 year end.

24  
25 Third, Staff believes that we are still missing some element of cash flow information. For  
26 example, let's start with the \$4.8 million cash funding shortfall indicated at the bottom of

1 the last column of page 14. Then, if we turn to page 16, we can see (with a little addition  
2 not actually shown on this page) that the total dollars paid out under the various system  
3 acquisitions through the end of 2008 was approximately \$85.5 million. (the total of the  
4 figures in column B). Adding these two figures together we get total cash outflows of  
5 \$90.3 million. Finally, by turning to page 12 of this report we see that Global Parent only  
6 received \$60.1 million from the ICFA Agreements through 2008 (the sum of the five  
7 funds collected columns). Obviously, a simple comparison of these two totals (\$90.3  
8 million in cash outflows and \$60.1 million in cash inflows) indicates that something of  
9 significance is missing here.

10  
11 **Q. Mr. Armstrong, did Staff attempt to identify the element or elements of cash flow**  
12 **that are missing?**

13 A. No. My point here is simply that, while I am reasonably sure Ullmann & Company P.A.  
14 did provide the deliverables called for under their engagement, the Commission needs to  
15 be very careful in drawing specific conclusions from the page 14 data shown in this report.

16  
17 **Q. Mr. Armstrong, please turn to page 16 of the Ullmann report, which is the Schedule**  
18 **showing the seven water and wastewater acquisitions completed by Global Parent**  
19 **between 2005 and 2008. Does Staff have any comments regarding the information on**  
20 **this page?**

21 A. Since this page does not reflect column totals, Staff would note that this Schedule shows  
22 Global has agreed to pay a total of \$124,415,005 for these seven systems. The net book  
23 value of the plant being acquired, minus AIAC, was \$12,331,452. Therefore, Global  
24 Parent paid \$112,083,553 in acquisition premiums. \*

25 \*As previously noted, the planned acquisition of the Francisco Grande Utility  
26 Company has been cancelled.

1 **MAIN EXTENSION AGREEMENT REFUND "CASH-OUTS"**

2 **Q. Mr. Armstrong, you mentioned at the outset of your testimony that you would also**  
3 **be providing comments related to the role Global Parent played in facilitating the**  
4 **early cash-out of refund obligations to certain developers. Please explain this issue.**

5 **A.** As a part of my initial evaluation of the Global Parent Utilities' rate filings, I reviewed the  
6 Global Parent's 2011 annual report to shareholders. On pages 25 and 26 of the footnotes  
7 to this report, I noted the following discussion:

8  
9 ....the Company's unregulated business generates gains by selling the contractual  
10 rights to receive future refunds associated with line extension agreements of  
11 GWRI's regulated utilities. Our regulated utilities have various agreements with  
12 real estate developers and builders (the "Developers"), whereby funds, water  
13 infrastructure, or wastewater infrastructure are provided to us by the Developers and  
14 are considered refundable advances for construction. We continually look for  
15 opportunities where Developers are willing to sell their rights to receive refunds  
16 under such agreements for a discounted lump sum payment. Once the Company  
17 acquires the refund rights from the Developer, we are able to transfer such rights to  
18 third parties interested in a long-term stream of refund payments. Typically, we  
19 purchase these contractual rights from the respective Developers immediately before  
20 we completed the sale of those rights. The difference between the proceeds we  
21 receive and the amounts we paid to the developer is recognized as a gain and  
22 presented as a component of **unregulated revenue** when certain circumstances are  
23 met.  
24

25 The discussion goes on to indicate that approximately \$1.4 million in such gains was  
26 recorded in 2011.

27  
28 On page 10 of the footnotes to Global Parent's 2012 audited financial statements, the  
29 company makes the following declaration with regards to facilitating future line extension  
30 refund cash-outs: "...we view the activity as a new line of business and the Company has  
31 the ability and intent to pursue opportunities of similar transactions in the future."  
32



1 Staff issued discovery related to this issue under data requests STF-1.7 and STF-1.15.  
2 Much of the data provided was deemed to be CONFIDENTIAL by Global Parent.

3

4 **Q. Please continue with your discussion and recommendations.**

5 A. Staff believes that, like the Coordinator role assumed by Global Parent under the ICFA  
6 Agreements, the company's actions, and planned course of actions with regards to  
7 pursuing this "new line of business," again blur the dividing line between regulated and  
8 non-regulated operations.

9

10 Staff is concerned that the unregulated Global Parent businesses apparently have the  
11 ability to "farm" such information for financial gain. In my opinion, by its own admission  
12 through stamping some of the responses provided to Staff's data request STF-1.7 as being  
13 confidential, the company is acknowledging that it has taken advantage of its relationship  
14 to its regulated entities by allowing access to confidential information to an unregulated  
15 affiliate.

16

17 While Staff is not making a specific recommendation regarding the gains from this  
18 activity actually booked by Global Parent's unregulated entities in 2011 and 2012, Staff  
19 does recommend that the Commission should direct the Global Parent Utilities to develop  
20 and submit a written "Code-of-Conduct" to help define appropriate, and inappropriate,  
21 inter-affiliate activities with the Global Parent.

22

23 Incumbent regulated utilities possess extensive information about customers. Such  
24 information can be a valuable commodity, as evidenced by the gains booked by Global  
25 Parent. Having a written Code-of-Conduct that must be followed should help protect the  
26 rights of customers and help head off possible preferential treatment abuse.

1 **Q. Does this conclude your direct testimony?**

2 **A. Yes, it does.**

**ORIGINAL**  
**COMMISSIONERS**  
GARY PIERCE- Chairman  
BOB STUMP  
SANDRA D. KENNEDY  
PAUL NEWMAN  
BRENDA BURNS



**ARIZONA CORPORATION COMMISSION**

AZ CORP COMMISSION  
DOCKET CONTROL

December 5, 2012  
2012 DEC 5 AM 9 14

Garry D. Hays  
Law Offices of Garry D. Hays.  
1702 E. Highland Ave., Suite 204  
Phoenix, Arizona 85016

RE: Tusayan Ventures, L.L.C. – Application for a Certificate of Convenience and Necessity (CC&N) Docket No. W-20828A-11-0475  
THIRD REQUEST FOR EXTENSION OF TIME TO RESPOND TO STAFF'S JANUARY 26, 2012 INSUFFICIENCY LETTER

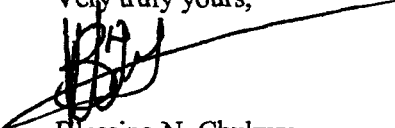
Dear Mr. Hays:

Staff has received your third request for an extension of time, of one year, to respond to Staff's January 26, 2012 Insufficiency Letter. As you are aware, the above mentioned application was filed on December 28, 2011 and to date the application is still insufficient. Staff acknowledges receiving additional information from you on November 9, 2012, but there are a lot of unanswered questions.

If the Company wishes to pursue the application, please submit the remainder of the information by June 1, 2013. Staff would most likely recommend that this docket be closed if the remainder of the information is not submitted by June 1, 2013 (approximately 18 months after the application was filed).

If you have any questions concerning this matter, please do not hesitate to contact me at 602-542-0840 or Marlin Scott, Jr. at 602-542-7272.

Very truly yours,

  
Blessing N. Chukwu  
Executive Consultant III

Arizona Corporation Commissioner

**DOCKETED**

DEC 05 2012

DOCKETED

*SM*

BNC

cc: Docket Control  
Del Smith  
Lyn Farmer  
Brian Bozzo  
Connie Walczak

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August 7, 2012

Garry D. Hays  
Law Offices of Garry D. Hays  
1702 E. Highland Ave., Suite 204  
Phoenix, Arizona 85016

RE: Tusayan Ventures, L.L.C. – Application for a Certificate of Convenience and Necessity (CC&N) Docket No. W-20828A-11-0475  
SECOND REQUEST FOR EXTENSION OF TIME TO RESPOND TO STAFF'S JANUARY 26, 2012 INSUFFICIENCY LETTER

Dear Mr. Hays:

Staff has received your second request for an extension of time to respond to Staff's January 26, 2012 Insufficiency Letter. As you are aware, the above mentioned application was filed on December 28, 2011 and to date the application is still insufficient. Staff notes your efforts in beginning the United States Forest Service ("USFS") directed Environmental Assessment (EA) process and hiring a NEPA Consultant, Westland Resources, to help you with the application.

If the Company wishes to pursue the application, please file the response to the January 26, 2012 Insufficiency Letter by November 6, 2012. After November 6, 2012, if the Company fails to respond to the January 26, 2012 Insufficiency Letter, Staff may request that the case be administratively closed.

If you have any questions concerning this matter, please do not hesitate to contact me at 602-542-0840 or Marlin Scott, Jr. at 602-542-7272.

Very truly yours,

A handwritten signature in black ink, appearing to read "B. Chukwu", written over a horizontal line.

Blessing N. Chukwu  
Executive Consultant III

Arizona Corporation Commission  
DOCKETED

AUG 08 2012

DOCKETED BY Handwritten initials "JAM" in a box.

BNC

cc: Docket Control  
Del Smith  
Lyn Farmer  
Brian Bozzo  
Connie Walczak

**Global Water Utilities**

**Docket No. W-01212A-12-0309, et al**

**James R. Armstrong**

**Direct Testimony**

**Attachment A**

Other important considerations related to understanding the structure and purpose of Global's ICFA agreements include the following:

1. Global Water was created in the housing boom and the ICFA agreements were an outgrowth of that economic environment;

Docket No. SW-0357A-09-0077 et al, Global witness Mr. Hill direct testimony, page 16, line 9

2. The ICFA arrangements only have value because CCNs and the agreements contain express provisions for termination if the Commission does not grant the underlying regulated global utilities a CCN for the area covered by the ICFA;

Docket No. SW-0357A-09-0077 et al, Global witness Mr. Hill direct testimony, page 33, lines 5 through 7; Global water workshop comments, pages 5 and 15

3. ICFAs are "voluntary contracts" between Global Parent and a landowner;

Docket No. SW-0357A-09-0077 et al, Global witness Mr. Hill direct testimony, page 31, line 6 and 7; Docket No. SW-0357A-09-0077 et al, Global witness Mr. Rowell direct testimony, page 15, line 9 and 10 Global water workshop comments, page 4, line 18

4. ICFAs are structured to take responsibility for water planning away from homebuilders;

Docket No. SW-02445A-09-0077 et al, Global witness Mr. Hill rebuttal testimony, page 7, line 15. Page 4 of Global comments filed June 23, 2006 in Docket No. 06-0149.

5. ICFA's are different from main extension agreements – ICFA funds can be used to support regional planning, while main extension agreement funds are limited to paying for facilities.

Global water workshop comments, pages 9 and 10.

6. The structure of the ICFA contracts arguably blurs the line between the holding company and the utility;

Direct testimony of Arizona Water Company witness Mr. Garfield, Docket No. W-01445A-06-0200, page 7, line 1 through page 8, line 2.

7. ICFA's are not a tax-efficient source of funding;

ACC Order No. 71878, pages 27 and 28. Direct testimony of John Thornton on behalf of Arizona Water Company, Docket No. W-01445A-06-0200, page 27, line 22 through page 28, line 11.

8. ICFA's have the potential for generating extremely large, but uneven, cash flows for Global, and (corresponding directly to the receipt of ICFA funds), Global Parent has committed to planning, coordinating, developing, and financing large infrastructure investments which also involve uncertain, and uneven, cash flows requirements;

Refer to ICFA coordinator responsibilities discussion summarized in direct testimony of Mr. Armstrong, page 8. Provisions of ICFA Agreements discussing landowner payments and "coordinator's obligations. Global Parent is the coordinator in the ICFA agreements. Ullmann Report, page 12.

9. Global has never contended that ICFA's are non-jurisdictional to the ACC;

Docket No. SW-02445A-09-0077 et al, Global witness Mr. Hill rebuttal testimony, page 21, line 19.

10. Developers have provided ICFA funds to Global Parent which, comingled with equity and debt provided by Global Parent, have been used for the provision of utility service, whether through acquisitions, carrying costs, or plant construction;

Commission finding in Order No. 71878, page 30, lines 15 - 18

11. In Decision No. 71878, the Commission left open the possibility that the treatment afforded ICFAs could be different in a future rate case.

Commission finding in Order No. 71878, page 31, lines 15 - 18

**Global Water  
Docket No. W-01212A-12-0309 et al**

**James R. Armstrong  
Direct Testimony**

**Attachment A  
ICFA Agreement – Important Consideration No. 1 Support**

**Global Water was created in the housing boom and the ICFA agreements were an outgrowth of that economic environment.**



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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman

GARY PIERCE

PAUL NEWMAN

SANDRA D. KENNEDY

BOB STUMP

IN THE MATTER OF THE APPLICATION OF  
GLOBAL WATER - PALO VERDE UTILITIES  
COMPANY FOR THE ESTABLISHMENT OF  
JUST AND REASONABLE RATES AND  
CHARGES FOR UTILITY SERVICE DESIGNED  
TO REALIZE A REASONABLE RATE OF  
RETURN ON THE FAIR VALUE OF ITS  
PROPERTY THROUGHOUT THE STATE OF  
ARIZONA.

DOCKET NO. SW-03575A-09-

Direct Testimony

of

Trevor T. Hill

February 20, 2009

1 Our state faces major challenges on the path to recovery. Predictions are that job growth  
2 will not improve until 2010 and our housing market will not recover until 2012 at the  
3 earliest. The Arizona growth engine has stopped. This does not mean Arizona will not  
4 recover. Housing affordability has improved (as a result of falling home prices), and  
5 Arizona continues to be home to vibrant companies which will again grow. In fact, the  
6 US Census Bureau believes that Arizona will move into the top ten most populous states  
7 by 2030, growing by 109% to 10.7 million people.<sup>16</sup>

8  
9 Global Water was created in a housing boom and a record drought. Our company is  
10 designed to handle explosive growth and difficult weather conditions. This does not  
11 mean that we cannot handle downturns, or that wet years obviate the need for total water  
12 management. As explained later in this testimony, Global Water has reduced its staffing,  
13 reorganized its operations, and embarked on new business platforms such as Global  
14 Green Billing. We are retooling and adapting to today's conditions, but we continue to  
15 believe that Arizona's future will involve growth and water scarcity – and our collective  
16 ability to manage those two challenges will determine our state's success.

17  
18 **Q. How has Global Water responded to the economic downturn?**

19 **A.** Global Water has addressed this issue by reducing expenses and conserving capital  
20 through the following:

21  
22 **1. Economies and Efficiencies Task Force (EETF)**

23 The EETF is chartered with the responsibility of determining methods and practices to  
24 reduce operating costs to a minimum acceptable level consistent with ensuring compliant  
25 operations at all times. The goal of the EETF is to review operating costs associated with  
26

27 <sup>16</sup> US Census Bureau, Press Release CB05-02, April 21, 2005. Attached at Attachment Hill-11.

**Global Water  
Docket No. W-01212A-12-0309 et al**

**James R. Armstrong  
Direct Testimony**

**Attachment A  
ICFA Agreement – Important Consideration No. 2 Support**

**The ICFA arrangements only have value because of the underlying ACC-authorized Certificates of Convenience and Necessity (“CCN”) and the agreements contain express provisions for termination if the Commission does not grant the underlying regulated global utilities a CCN for the area covered by the ICFA.**

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1                    **BEFORE THE ARIZONA CORPORATION COMMISSION**

2                    **COMMISSIONERS**

3                    KRISTIN K. MAYES, Chairman

4                    GARY PIERCE

5                    PAUL NEWMAN

6                    SANDRA D. KENNEDY

7                    BOB STUMP

8                    IN THE MATTER OF THE APPLICATION OF  
9                    GLOBAL WATER – PALO VERDE UTILITIES  
10                    COMPANY FOR THE ESTABLISHMENT OF  
11                    JUST AND REASONABLE RATES AND  
12                    CHARGES FOR UTILITY SERVICE DESIGNED  
13                    TO REALIZE A REASONABLE RATE OF  
14                    RETURN ON THE FAIR VALUE OF ITS  
15                    PROPERTY THROUGHOUT THE STATE OF  
16                    ARIZONA.

DOCKET NO. SW-03575A-09-

17                    Direct Testimony

18                    of

19                    Trevor T. Hill

20                    February 20, 2009

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22  
23  
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1 Q. What areas are covered by ICFAs?

2 A. Maps showing areas covered by ICFAs are included as Attachment Hill-10.

3  
4 Q. Do the ICFAs grant some type of monopoly or right to serve those areas?

5 A. Absolutely not. Only the Commission can do that through the CC&N process. In fact, the  
6 ICFAs contain express provisions for termination if the Commission does not grant the  
7 Global Utilities a CC&N for the area covered by the ICFA. Furthermore, the ICFA  
8 mechanism is a voluntary financing methodology offered to landowners. Landowners  
9 always have the choice to enter into standard main and line extension agreements.

10  
11 Q. How do ICFAs relate to conservation?

12 A. First of all, they eliminate the developer-financed approach which almost always builds the  
13 lowest-capital cost solution and ignores both long-term costs such as energy and treatment,  
14 and avoids investing in water recycling and recharge.

15  
16 Second, ICFAs allow for many developers to support one regional plan. The ICFAs  
17 contain a 'most favored nation' term in ICFAs, which assures developers that no  
18 competing developer (in the same group of ICFAs) has struck a 'better deal' with Global.  
19 Additionally, ICFAs allowed us to consolidate and acquire CC&Ns - I use the term CC&N  
20 rather than utility because the vast majority of our acquisition efforts didn't yield us usable  
21 and well-designed utilities, we were always buying CC&N rights that had long ago  
22 accrued to undercapitalized providers who had neither the interest nor the capability of  
23 enacting meaningful regional planning.

24  
25 Finally, ICFAs allowed Global to partially offset the carrying costs of emplacing \$200+  
26 million of utility plant in a five-year period. And that scope of investment was needed to  
27 provide maximum water recycling. In the case of Palo Verde and Santa Cruz, in an area

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BEFORE THE ARIZONA CORPORATION COMMISSION

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Director Utilities

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IN THE MATTER OF THE COMMISSION'S  
GENERIC EVALUATION OF THE  
REGULATORY IMPACT FROM THE USE OF  
NON-TRADITIONAL FINANCING  
ARRANGEMENTS BY WATER UTILITIES AND  
THEIR AFFILIATES

Docket No. W-00000C-06-0149

Global's Comments

Santa Cruz Water Company, LLC; Palo Verde Utilities Company, LLC; Global Water --  
Santa Cruz Water Company; Global Water - Palo Verde Utilities Company; Cave Creek Water  
Company; and Hassayampa Utility Company (the "Global Utilities") and Global Water Resources,  
LLC ("Global Parent")(collectively "Global") hereby provide their comments regarding this  
docket.

I. Introduction.

We appreciate the opportunity to provide comments concerning the important subject of  
non-traditional financing arrangements. Arizona has rapid growth combined with limited water  
resources. We have carefully analyzed the issues facing our State - the Colorado River is,  
according to ADWR, overallocated by millions of acre-feet per year, Arizona is in a very long  
drought period, ADWR has been stymied by litigation in its efforts to enact meaningful gallons per  
capita per day regulations, and the twin pressures of growth and arsenic compliance are  
overwhelming small water companies. In this situation, it is essential that we find ways to  
maximize the use of our water resources, while minimizing any potential adverse environmental  
effects. Growth, arsenic compliance and the drought have stretched - sometimes beyond the  
breaking point - the resources of small water and wastewater providers. These small utilities often

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1 ICFAs require main extension agreements with the Global Utilities, which must be approved under  
2 A.A.C. R14-2-406. In addition, the ICFAs carefully respect the Commission's authority over the  
3 CC&N process. Utility service will not be provided to the land until the Commission approves a  
4 CC&N, and until a main extension agreement is in place and approved under A.A.C. R14-2-406.  
5 If the Commission denies a CC&N for the area, the landowner "may terminate this Agreement  
6 without recourse to either party". ICFA § 7.

7 **B. The ICFAs allow conservation, consolidation, and cooperation.**

8 **1. Conservation.**

9 Water conservation is critically important to the future of our state. For example, a recent  
10 report from a committee of the Arizona Department of Water Resources finds that Pinal County  
11 has limited groundwater. Recent calculations show that the Pinal Active Management Area  
12 ("AMA") has a renewable groundwater supply of about 82,000 acre feet per year on an average  
13 annual basis<sup>1</sup>. This represents real "wet water" that will be physically available and can be safely  
14 withdrawn over the long term without depleting the aquifer. Yet more than 272,000 acres of land  
15 have been issued Irrigation Grandfathered Rights.<sup>2</sup> At an extinguishment value of 1.5 AF/acre,  
16 this represents a potential draw of 408,000 acre feet of "paper water" that could be allocated for  
17 withdrawal. Relying on paper water alone will not be sufficient. The water conservation triad can  
18 close this substantial gap between paper water and wet water - but only if it is put into effect.

19 Each element of the water conservation triad - reclaimed water, surface water, and water  
20 recharged into the aquifer - requires substantial capital. Traditional financing methods are  
21 designed to fund only the facilities absolutely necessary to meet the minimum regulatory  
22 requirements. It is akin to aiming to get a "D minus" and barely pass. Triad-level facilities are  
23 simply not built using traditional methods. Conservation requires doing far more than the  
24 minimum. Effective conservation requires - and the Commission should expect - "A plus" work.

25  
26 <sup>1</sup> From the Pinal Active Management Area Groundwater User's Advisory Committee "Assured  
27 Water Supply Modifications Concepts" draft dated December 29, 2005.

<sup>2</sup> *Id.*

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1 retains full authority over the CC&N process. If the CC&N is not granted, the ICFA has little  
2 value, and the landowner has the option of cancelling it. This means that Global Parent is taking  
3 an entrepreneurial risk – a risk not appropriate for any regulated utility, such as the Global  
4 Utilities. If growth fails to develop as planned, it is Global Parent that will have sunk large  
5 amounts of money into unused infrastructure. In addition, the Commission, through its Staff, will  
6 still review the related main extension agreements in accordance with A.A.C. R14-2-406. The  
7 Commission also retains full authority over the Global Utilities, including their rates and service  
8 quality.

9 • **The nature of the “per dwelling unit” fees charged by GWR.**

10 These fees are based on the carrying costs of the capital necessary to serve the  
11 development. In addition, other costs may be factored in, such as the cost of acquiring an existing  
12 utility, or the costs of acquiring access to surface water. The fees are negotiated. The developers  
13 who sign the ICFA's are typically very sophisticated. The same fees apply to an entire area, so that  
14 there is no discrimination. This means that Global Parent is often negotiating with multiple  
15 developers at once.

16 • **From afar, they resemble “hook-up” fees? Are they? If so, please explain the  
17 legal basis for these fees when GWR is not a Public Service Corporation (PSC).**

18 The ICFA fees are not hook up fees. A key difference is that hook-up fees can only be  
19 used for a single purpose - to fund specific future infrastructure; while ICFA fees can be used for  
20 many purposes, such as funding consolidation and conservation efforts. In addition, hook-up fees  
21 are mandatory, while ICFA fees are entirely voluntary. Inside the existing CC&N area of a Global  
22 Utility, the landowner always has the option of signing a traditional main extension agreement.  
23 Outside the current CC&N area, the landowner can always request service from another utility, or  
24 even form its own utility if allowed by the Commission. Additional differences between ICFA's  
25 and hook up fees are discussed in Section IID above.



**Global Water**  
**Docket No. W-01212A-12-0309 et al**

**James R. Armstrong**  
**Direct Testimony**

**Attachment A**  
**ICFA Agreement – Important Consideration No. 3 Support**

**ICFAs are “voluntary contracts” between Global Parent and a landowner.**

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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman

GARY PIERCE

PAUL NEWMAN

SANDRA D. KENNEDY

BOB STUMP

IN THE MATTER OF THE APPLICATION OF  
GLOBAL WATER - PALO VERDE UTILITIES  
COMPANY FOR THE ESTABLISHMENT OF  
JUST AND REASONABLE RATES AND  
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RETURN ON THE FAIR VALUE OF ITS  
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ARIZONA.

DOCKET NO. SW-03575A-09-

Direct Testimony

of

Trevor T. Hill

February 20, 2009

1 Global Water has used the ICFA to implement the policy vision that Global Water and the  
2 Commission share. In that context, we believe that Global Water and the Commission can  
3 reach agreement on the accounting mechanism for this valuable tool.  
4

5 **Q. What is an ICFA?**

6 **A.** An ICFA (Infrastructure Coordination and Financing Agreement) is a voluntary contract  
7 between Global Parent and a landowner. These contracts provide for Global Parent to  
8 coordinate the planning, financing and construction of off-site water, wastewater and  
9 recycled water plant. The Global Utilities will own and operate this plant when  
10 construction is complete. Under the ICFAs, Global Parent is responsible for funding both  
11 the planning and construction of water, wastewater and recycled water plant. This is a  
12 significant investment for Global Parent. The landowners who enter into the ICFAs agree  
13 to cooperate with Global Parent's plant planning and construction process. ICFAs  
14 formalize the cooperation between the landowner and Global, but also provide fees which  
15 allow Global Parent to impress conservation and consolidation into the regional planning  
16 initiatives. These fees are intended to recover a portion of the carrying costs for the very  
17 expensive facilities required to implement effective water conservation and, in some cases,  
18 to fund Global Parent's acquisition of existing utilities.  
19

20 **Q. Does Global Parent pay taxes on the revenues received under ICFAs?**

21 **A.** Yes. We pay taxes on ICFAs as part of our consolidated revenues – tax liability on the  
22 \$60 million received is \$24 million.  
23

24 **Q. Please describe the fees contained within the ICFAs.**

25 **A.** ICFAs typically require landowners to pay a fee related to acquisition of utilities and the  
26 carrying costs of the funds associated with plant planning and construction to Global  
27 Parent. Importantly, most of these fees are typically due at the time of final plat approval,

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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman  
GARY PIERCE  
PAUL NEWMAN  
SANDRA D. KENNEDY  
BOB STUMP

IN THE MATTER OF THE APPLICATION OF  
GLOBAL WATER – PALO VERDE UTILITIES  
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DOCKET NO. SW-03575A-09-

Direct Testimony  
of  
Matthew J. Rowell  
February 20, 2009

1 A. Yes. Hook up fees require that developers (or end use customers) contribute to the water  
2 or wastewater utility. Hook up fees are specifically designed to cover actual plant  
3 investment. The ICFA fees, however, are not covering actual plant investment. Global  
4 Parent makes that investment. ICFA fees partially offset Global Parent's carrying costs.  
5 Another key difference is that hook-up fees are typically not taxable income for water or  
6 wastewater utilities. In contrast, Global Parent pays taxes on the ICFA fees. A final key  
7 difference is that hook-up fees are mandatory tariffed fees paid to the regulated utility. In  
8 contrast, ICFAs are purely voluntary, and the ICFA fees are not paid to the regulated  
9 utility. The ICFA fees are the result of voluntary negotiations between Global Parent and  
10 developers and landowners.

11  
12 **Q. Should the ICFA fees be treated as advances or contributions (AIAC or CIAC?)**

13 A. No. The per EDU fees contained in ICFAs are intended to offset the carrying costs of  
14 plant investments *not* the actual plant investment itself. Advances and contributions are  
15 designed to cover the actual plant investment itself. Also, Global Parent pays a  
16 significant amount of tax on the per EDU fees collected through the ICFAs. Water and  
17 wastewater main extension agreements that create AIAC and CIAC typically include  
18 "gross-up" provisions that apply should those fees be found to be taxable. In contrast,  
19 ICFA fees cannot be grossed-up.

20  
21 **Q. What effect does the ICFA method of financing have on utilities' balance sheets  
22 (compared to traditional advances or contributions in aid of construction)?**

23 A. The ICFAs do not have any direct impact on the utilities' balance sheets. The funds  
24 received through the ICFAs are revenues for Global Parent that help offset some of the  
25 carrying costs of plant construction, or acquisition payments for the purchase of other  
26 utilities. Because of this, Global Parent has been able to invest equity in plant which  
27 implements the "Total Water Management" conservation strategy for its subsidiary

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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

Jeff Hatch-Miller, Chairman  
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IN THE MATTER OF THE COMMISSION'S  
GENERIC EVALUATION OF THE  
REGULATORY IMPACT FROM THE USE OF  
NON-TRADITIONAL FINANCING  
ARRANGEMENTS BY WATER UTILITIES AND  
THEIR AFFILIATES

Docket No. W-00000C-06-0149

Global's Comments

Santa Cruz Water Company, LLC; Palo Verde Utilities Company, LLC; Global Water - Santa Cruz Water Company; Global Water - Palo Verde Utilities Company; Cave Creek Water Company; and Hassayampa Utility Company (the "Global Utilities") and Global Water Resources, LLC ("Global Parent")(collectively "Global") hereby provide their comments regarding this docket.

**I. Introduction.**

We appreciate the opportunity to provide comments concerning the important subject of non-traditional financing arrangements. Arizona has rapid growth combined with limited water resources. We have carefully analyzed the issues facing our State - the Colorado River is, according to ADWR, overallocated by millions of acre-feet per year, Arizona is in a very long drought period, ADWR has been stymied by litigation in its efforts to enact meaningful gallons per capita per day regulations, and the twin pressures of growth and arsenic compliance are overwhelming small water companies. In this situation, it is essential that we find ways to maximize the use of our water resources, while minimizing any potential adverse environmental effects. Growth, arsenic compliance and the drought have stretched - sometimes beyond the breaking point - the resources of small water and wastewater providers. These small utilities often

1 infrastructure to meet the triad of water conservation on a regional scale and cover the time value  
2 of the equity it invests – and if Global Parent has overestimated growth, Global Parent, not the  
3 regulated utility, not the developer, bears the risk.

4 In enacting our 3C approach, Global Parent undertakes significant entrepreneurial risk.  
5 The ICFAs allow Global Parent to reduce its financial exposure as it emplaces hundreds of  
6 millions of dollars in infrastructure that is far beyond the norm for any water/wastewater provider,  
7 public or private. Global Parent is financing and building the infrastructure necessary to address  
8 water scarcity in a fast-growing region – if the growth slows, however, that infrastructure will wait  
9 a very long time before becoming ‘used and useful’. Such a risk is inappropriate for a regulated  
10 utility, such as the Global Utilities, but well within the capability of the Global Parent’s owners.

11 The ICFAs reduce Global Parent’s risk by providing compensation for the carrying costs – not the  
12 principal  $\frac{1}{4}$  of Global Parent’s investment. The ICFAs also shields the Global Utilities from these  
13 growth-related risks.

14 Another central concept is openness. The ICFAs are recorded, public documents. The  
15 ICFAs are negotiated in a transparent process that where each landowner in an area is offered the  
16 same terms. In fact, many ICFAs contain “most favored nation” clauses, which provide that if any  
17 other landowner in the area is offered better terms, the protected landowner gets the benefit of  
18 those terms. The execution of an ICFA is also a voluntary action on the part of the land owner.  
19 Traditional financing methodologies are available at the option of the land owner.

20 The ICFA payments provide for payments tied to various events. Typically, all or a large  
21 portion of the ICFA carrying costs are payable at the time of plat approval. For example, in the  
22 case of the ICFA attached to Commissioner Mundell’s letter, all the fees are payable upon plat  
23 approval. ICFA § 4. In other cases, some of the ICFA fees are payable at certain other defined  
24 events, such as when certain permits or certificates are approved.

25 The ICFAs carefully avoid infringing on the Commission’s powers. The ICFAs do not  
26 cover rates for utility services, and the Commission, as always, has full authority over the rates  
27 charged by the Global Utilities. Likewise, the main extension process is respected. In fact, the

**Global Water  
Docket No. W-01212A-12-0309 et al**

**James R. Armstrong  
Direct Testimony**

**Attachment A  
ICFA Agreement – Important Consideration No. 4 Support**

**ICFAs are structured to take responsibility for water system planning  
away from developers/homebuilders.**



DOCKET NOs. SW-02445A-09-0077 *et al.*

**Rebuttal Testimony  
of  
Trevor T. Hill**

**November 20, 2009**

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1 community does to its water affects the environment, and affects everyone's water. So, if  
2 China poisons water with its industrial waste that will affect more than China. And if  
3 Arizona continues to waste its water, or to ignore the long-term costs of using coal to pump  
4 water 334 miles uphill, Arizona will affect more than itself.

5  
6 And on the positive side of the ledger – if Arizona decides to be the world's leader in Total  
7 Water Management, if we decide to be the most water-wise place in the world, we will be  
8 able to prove technologies and systems that will then be exported globally and we will save  
9 millions of people from water crises. I think it's important that the Commission  
10 understand clearly that that is what Global Water is about – that is our goal, that is our  
11 mission, and that has driven all of our decisions (yes, even the ICFA was based on that  
12 view).

13  
14 **Q. How does the ICFA relate to that view?**

15 **A.** In two ways. First, ICFAs take water planning away from homebuilders – so water is not  
16 about “fueling growth” in the short term, it's about sustaining communities and the  
17 environment, simultaneously. Second, ICFAs are structured so that no developer-owned  
18 water “utility” can compete – Global Parent wears all the risks of permitting, financing,  
19 growth, used and useful determinations, safety, and public-private relationships. This is  
20 how we came to have so many sections of CC&N area.

21  
22 **Q. What are the results of that effort?**

23 **A.** In the Maricopa area, we use 40% less water than our neighbors. In the planned Belmont  
24 area, we will use 60% less water to sustain that community. In Belmont, we will be down  
25 to 0.2 acre-feet per house per year, from 0.5. And developers support us, because of the  
26 risk-bearing that Global Parent incurs. In the absence of these measures, economic  
27

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BEFORE THE ARIZONA CORPORATION COMMISSION

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IN THE MATTER OF THE COMMISSION'S  
GENERIC EVALUATION OF THE  
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ROSECK, DEWOLF & PATTER, P.L.C.  
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1. infrastructure to meet the triad of water conservation on a regional scale and cover the time  
2. of the equity it invests - and if Global Parent has overestimated growth, Global Parent, not the  
3. regulated utility, not the developer, bears the risk.

4. In enacting our 3C approach, Global Parent undertakes significant entrepreneurial risk.  
5. The ICFA's allow Global Parent to reduce its financial exposure as it replaces hundreds of  
6. millions of dollars in infrastructure that is far beyond the norm for any water/wastewater provider,  
7. public or private. Global Parent is financing and building the infrastructure necessary to address  
8. water scarcity in a fast-growing region - if the growth slows, however, that infrastructure will wait  
9. a very long time before becoming 'used and useful'. Such a risk is inappropriate for a regulated  
10. utility, such as the Global Utilities, but well within the capability of the Global Parent's owners.  
11. The ICFA's reduce Global Parent's risk by providing compensation for the carrying costs - not the  
12. principal - of Global Parent's investment. The ICFA's also shields the Global Utilities from these  
13. growth-related risks.

14. Another central concept is openness. The ICFA's are recorded, public documents.  
15. ICFA's are negotiated in a transparent process that where each landowner in an area is offered the  
16. same terms. In fact, many ICFA's contain "most favored nation" clauses, which provide that if any  
17. other landowner in the area is offered better terms, the protected landowner gets the benefit of  
18. those terms. The execution of an ICFA is also a voluntary action on the part of the land owner.  
19. Traditional financing methodologies are available at the option of the land owner.

20. The ICFA payments provide for payments tied to various events. Typically, all or a large  
21. portion of the ICFA carrying costs are payable at the time of plat approval. For example, in the  
22. case of the ICFA attached to Commissioner Mundell's letter, all the fees are payable upon plat  
23. approval. ICFA § 4. In other cases, some of the ICFA fees are payable at certain other defined  
24. events, such as when certain permits or certificates are approved.

25. The ICFA's carefully avoid infringing on the Commission's powers. The ICFA's do not  
26. cover rates for utility services, and the Commission, as always, has full authority over the rates  
27. charged by the Global Utilities. Likewise, the main extension process is respected. In fact,

**Global Water  
Docket No. W-01212A-12-0309 et al**

**James R. Armstrong  
Direct Testimony**

**Attachment A  
ICFA Agreement – Important Consideration No. 5 Support**

**ICFAs are different from main extension agreements – ICFA funds can be used to support regional planning, while main extension agreement funds are limited to paying for facilities.**

Dorf

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

Jeff Hatch-Miller, Chairman  
William A. Mundell  
Marc Spitzer  
Mike Gleason  
Kristin K. Mayes

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JUN 26 2006

AZ CORP COMM  
Director Utilities

AZ CORP COMMISSION  
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IN THE MATTER OF THE COMMISSION'S  
GENERIC EVALUATION OF THE  
REGULATORY IMPACT FROM THE USE OF  
NON-TRADITIONAL FINANCING  
ARRANGEMENTS BY WATER UTILITIES AND  
THEIR AFFILIATES

Docket No. W-00000C-06-0149

Global's Comments

Santa Cruz Water Company, LLC; Palo Verde Utilities Company, LLC; Global Water – Santa Cruz Water Company; Global Water – Palo Verde Utilities Company; Cave Creek Water Company; and Hassayampa Utility Company (the “Global Utilities”) and Global Water Resources, LLC (“Global Parent”)(collectively “Global”) hereby provide their comments regarding this docket.

**I. Introduction.**

We appreciate the opportunity to provide comments concerning the important subject of non-traditional financing arrangements. Arizona has rapid growth combined with limited water resources. We have carefully analyzed the issues facing our State – the Colorado River is, according to ADWR, overallocated by millions of acre-feet per year, Arizona is in a very long drought period, ADWR has been stymied by litigation in its efforts to enact meaningful gallons per capita per day regulations, and the twin pressures of growth and arsenic compliance are overwhelming small water companies. In this situation, it is essential that we find ways to maximize the use of our water resources, while minimizing any potential adverse environmental effects. Growth, arsenic compliance and the drought have stretched – sometimes beyond the breaking point – the resources of small water and wastewater providers. These small utilities often

1 The ICFA's also allow cooperation with developers. For example, Global Parent has  
2 worked with developers to buy troubled systems using ICFA's. In addition, the ICFA's do not  
3 require developers to borrow money to make huge upfront payments to the utility, as often  
4 happens with main extensions. By restructuring the timing of payments, Global Parent is able to  
5 make the ICFA's attractive to developers, who agree to the other aspects of the ICFA – such as  
6 promotion of reclaimed water and surrender of groundwater wells – as part of the package.

7 **C. ICFA's are not main extensions.**

8 ICFA's are very different from main extension agreements. The ability to do regional  
9 planning, the timing of when facilities are constructed and when developers pay, who actually does  
10 the construction, and the functions that can be financed are all sharply different. In addition the  
11 parties are different, because utilities are parties to main extension agreements but not ICFA's.

12 A key difference is in regional planning. ~~Main extensions are done on a parcel by parcel~~  
13 basis. A developer pays for the facilities need to serve their development only. A.A.C. R14-2-  
14 406(B)(1). This typically results in things like small, highly inefficient “package” treatment  
15 plants. In contrast, under the ICFA, Global plans and constructs regional facilities to gain  
16 economics of scale. For example, Global puts in large 48 inch collection mains. Under a main  
17 extension approach, multiple smaller lines would eventually be constructed instead, often running  
18 parallel to each other.

19 The timing of construction is also different. Main extensions must be processed in the  
20 “order received.” A.A.C. R14-2-406(J). If a utility gets main extension requests for opposite ends  
21 of its service area at the same time, it must build them both, rather than waiting for neighboring  
22 development to fill in. This reinforces the tendency to build small, inefficient facilities because  
23 the utility can't afford to “upsized” them for future growth. Under the ICFA, Global Parent is able  
24 to coordinate the timing of construction. This reinforces Global Parent's ability to plan and build  
25 large regional facilities.

26 Moreover, under a main extension approach, the construction is usually done by the  
27 developer, who then turns the facilities over to the utility. In contrast, under the ICFA, “off-site”

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1 facilities are utility built. This results in developers building homes, and utilities building utility  
2 plant.

3 Most fundamentally, ICFAs and main extension agreements pay for different things. Main  
4 extensions can only pay for facilities. A.A.C. R14-2-406(B)(1). "ICFAs only pay the carrying costs  
5 associated with the provision of facilities. And they can be used for many things that are not  
6 facilities at all." This includes forming new utilities, consolidating existing utilities, paying for  
7 CAP reservation fees, and paying for the protection of canal systems.

8 **D. ICFAs are not like hook-up fees.**

9 There are also many differences between ICFAs and hook-up fees. For example, hook-up  
10 fees are mandatory, while ICFAs are voluntary. In addition, hook-up fees result in high levels of  
11 contributions in aid of construction ("CIAC") while ICFAs result in equity.

12 Hook-up fees are allowed only for specific future infrastructure.<sup>1</sup> In contrast, the ICFA  
13 allows the utility to control the timing of construction. More importantly, hook-up fees are limited  
14 to infrastructure.<sup>2</sup> In contrast, as noted above, ICFAs can be used for many important uses other  
15 than physical infrastructure, such as the consolidation of utilities.

16 **III. The P3s are in the public interest.**

17 The P3s are not financing agreements. Instead, they merely provide for cooperation  
18 between Global and the cities. The P3s are public documents adopted after open and full  
19 deliberation by the Cities of Maricopa and Casa Grande. The P3s with Maricopa and Casa  
20 Grande are attached as Exhibits B and C, respectively. The P3s serve many beneficial purposes.  
21 They help the cities cope with growth. Indeed, one of the core purposes of the P3s is to help the  
22 cities manage growth in accordance with Arizona's Growing Smarter and Growing Smarter Plus  
23 laws. Casa Grande P3, page 1. For example, Global must prepare an annual "Plan for Growth"  
24 for the city's planning area. *Id.* at ¶ 10. Global will also share its Geographical Information

25  
26 <sup>1</sup> See Staff Memorandum filed June 8, 2006 in Docket No. W-01303A-06-0284.

27 <sup>2</sup> *Id.*



**Global Water  
Docket No. W-01212A-12-0309 et al**

**James R. Armstrong  
Direct Testimony**

**Attachment A  
ICFA Agreement – Important Consideration No. 6 Support**

**The structure of the ICFA contracts arguably blur the line between the  
Global Parent holding company and the regulated utility.**

BEFORE THE ARIZONA CORPORATION COMMISSION

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AZ CORP COMMISSION  
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COMMISSIONERS

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

Arizona Corporation Commission  
DOCKETED  
NOV 30 2007

DOCKET ID: [Handwritten: NR]

ARIZONA WATER COMPANY, an Arizona corporation,

Complainant,

vs.

GLOBAL WATER RESOURCES, LLC, a foreign limited liability company; GLOBAL WATER RESOURCES, INC., a Delaware corporation; GLOBAL WATER MANAGEMENT, LLC, a foreign limited liability company; SANTA CRUZ WATER COMPANY, LLC, an Arizona limited liability corporation; PALO VERDE UTILITIES COMPANY, LLC, an Arizona limited liability corporation; GLOBAL WATER - SANTA CRUZ WATER COMPANY, an Arizona corporation; GLOBAL WATER - PALO VERDE UTILITIES COMPANY, an Arizona corporation; JOHN AND JANE DOES 1-20; ABC ENTITIES I - XX,

Respondents.

DOCKET NOS.

W-01445A-06-0200

SW-20458A-06-0200

W-20446A-06-0200

W-03576A-06-0200

SW-03575A-06-0200

CERTIFICATE OF FILING OF  
SUPPLEMENTAL DIRECT  
TESTIMONY  
AND EXHIBITS

1 Arizona Water Company is today filing the supplemental direct testimony and  
2 exhibits of its witnesses William M. Garfield, Joseph D. Harris and John S. Thornton.  
3

4 RESPECTFULLY SUBMITTED this 30<sup>th</sup> day of November, 2007.  
5

6 **ARIZONA WATER COMPANY**

7  
8 By: Robert W. Geake  
9 Robert W. Geake  
10 Vice President and General Counsel  
11 ARIZONA WATER COMPANY  
12 Post Office Box 29006  
13 Phoenix, Arizona 85038-9006

14 and

15 Steven A. Hirsch  
16 Rodney W. Ott  
17 BRYAN CAVE LLP  
18 Two North Central Avenue, Ste. 2200  
19 Phoenix, Arizona 85004-4406  
20  
21  
22  
23  
24  
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26  
27

1  
2 Q. Can you cite any specific similarities between the activities of water utilities  
3 owned by public service corporations and municipally owned water utilities?

4 A. Yes. All water utilities, whether owned and operated by public service corporations  
5 or municipalities, must perform the following activities:

- 6 1. Read water meters.
- 7 2. Render water bills.
- 8 3. Collect customer payments.
- 9 4. Establish, re-establish, and disconnect water service.
- 10 5. Maintain a meter repair, maintenance, and replacement program to ensure  
11 meter accuracy.
- 12 6. Install water services.
- 13 7. Install, maintain, and replace water mains, fire hydrants, valves.
- 14 8. Operate water treatment facilities.
- 15 9. Respond to customer complaints, questions, or concerns.
- 16 10. Establish conditions of service and other terms for the provision of water  
17 service.
- 18 11. Establish construction standards for water distribution, supply, treatment,  
19 storage, pumping and other water utility infrastructure.
- 20 12. Prepare capital improvement plans and financing plans for funding utility  
21 infrastructure.  
22

23 Q. How does the foregoing differ from the Global Respondents or between their  
24 affiliates?

25  
26 A. Unlike nearly every other public and privately owned water utility in Arizona, the  
27 above-listed water utility activities are not performed by Santa Cruz Water Company but are  
28 instead performed by Global Water Management, an entity not presently subject to the

1  
2 Commission's regulation and which is aggressively seeking to avoid the Commission's  
3 scrutiny.

4  
5 Q. Does Arizona Water Company perform any cost analysis concerning customer  
6 revenues and their relationship to the cost of installing water system infrastructure,  
7 such as in extending water service to new developments?

8  
9 A. Yes. Arizona Water Company reviews the cost of water utility infrastructure and  
10 compares it to the revenues expected from the customers to be connected to such utility  
11 infrastructure. If the cost of such utility infrastructure is disproportionate to the expected  
12 revenues, Arizona Water Company requires the developer to advance the cost of such utility  
13 infrastructure as a refundable advance for construction. Through my review of information  
14 provided by Global through data responses including numerous ICFAs executed by Global,  
15 I have learned that Global, in contrast has committed its regulated utilities, such as Santa  
16 Cruz Water Company, to extend water utility infrastructure up to the boundaries of each  
17 development all at the cost and risk of Santa Cruz Water Company. Although the method of  
18 funding this utility infrastructure is characterized in the ICFAs as equity funding from  
19 Global into Santa Cruz Water Company, our witnesses' reviews determined that the real  
20 method of funding is through debt incurred by Global, but with repayment of the borrowed  
21 money to the creditors assured through mortgaging the operating revenues of Santa Cruz  
22 Water Company. Mr. Harris and Mr. Thornton address this in their supplemental direct  
23 testimony. Although the utilities are not parties to the ICFAs, Global forces Santa Cruz  
24 Water Company to bear the risk and financial burden of installing utility infrastructure  
25 whose cost is disproportionate to the expected revenues. In fact, Global admits that most of  
26 the utility infrastructure being constructed by Santa Cruz Water Company and Palo Verde  
27 Utilities Company is at Global's direction (but presumably at Santa Cruz Water Company's  
28 and Palo Verde Utilities Company's cost), is serving no one, and it very likely won't serve

**Global Water  
Docket No. W-01212A-12-0309 et al**

**James R. Armstrong  
Direct Testimony**

**Attachment A  
ICFA Agreement – Important Consideration No. 7 Support**

**ICFAs are not a tax-efficient source of funding.**

1 BEFORE THE ARIZONA CORPORATION CC

2 COMMISSIONERS

3 KRISTIN K. MAYES - Chairman  
4 GARY PIERCE  
5 SANDRA D. KENNEDY  
6 BOB STUMP

Arizona Corporation Commission

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7 IN THE MATTER OF THE APPLICATION OF  
8 GLOBAL WATER - PALO VERDE UTILITIES  
9 COMPANY FOR THE ESTABLISHMENT OF  
10 JUST AND REASONABLE RATES AND  
11 CHARGES FOR UTILITY SERVICE DESIGNED  
12 TO REALIZE A REASONABLE RATE OF  
13 RETURN ON THE FAIR VALUE OF ITS  
14 PROPERTY THROUGHOUT THE STATE OF  
15 ARIZONA.

DOCKET NO. SW-20445A-09-0077

12 IN THE MATTER OF THE APPLICATION OF  
13 VALENCIA WATER COMPANY - GREATER  
14 BUCKEYE DIVISION FOR THE  
15 ESTABLISHMENT OF JUST AND REASONABLE  
16 RATES AND CHARGES FOR UTILITY SERVICE  
17 DESIGNED TO REALIZE A REASONABLE  
18 RATE OF RETURN ON THE FAIR VALUE OF  
19 ITS PROPERTY THROUGHOUT THE STATE OF  
20 ARIZONA.

DOCKET NO. W-02451A-09-0078

17 IN THE MATTER OF THE APPLICATION OF  
18 WILLOW VALLEY WATER COMPANY FOR  
19 THE ESTABLISHMENT OF JUST AND  
20 REASONABLE RATES AND CHARGES FOR  
21 UTILITY SERVICE DESIGNED TO REALIZE A  
22 REASONABLE RATE OF RETURN ON THE  
23 FAIR VALUE OF ITS PROPERTY  
24 THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-01732A-09-0079

22 IN THE MATTER OF THE APPLICATION OF  
23 GLOBAL WATER - SANTA CRUZ WATER  
24 COMPANY FOR THE ESTABLISHMENT OF  
25 JUST AND REASONABLE RATES AND  
26 CHARGES FOR UTILITY SERVICE DESIGNED  
27 TO REALIZE A REASONABLE RATE OF  
28 RETURN ON THE FAIR VALUE OF ITS  
PROPERTY THROUGHOUT THE STATE OF  
ARIZONA.

DOCKET NO. W-20446A-09-0080

27 IN THE MATTER OF THE APPLICATION OF  
28 WATER UTILITY OF GREATER TONOPAH FOR  
THE ESTABLISHMENT OF JUST AND

DOCKET NO. W-02450A-09-0081

1 REASONABLE RATES AND CHARGES FOR  
2 UTILITY SERVICE DESIGNED TO REALIZE A  
3 REASONABLE RATE OF RETURN ON THE  
4 FAIR VALUE OF ITS PROPERTY  
5 THROUGHOUT THE STATE OF ARIZONA.

4 IN THE MATTER OF THE APPLICATION OF  
5 VALENCIA WATER COMPANY - TOWN  
6 DIVISION FOR THE ESTABLISHMENT OF JUST  
7 AND REASONABLE RATES AND CHARGES  
8 FOR UTILITY SERVICE DESIGNED TO  
9 REALIZE A REASONABLE RATE OF RETURN  
10 ON THE FAIR VALUE OF ITS PROPERTY  
11 THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-01212A-09-0082

DECISION NO. 71878

**OPINION AND ORDER**

8	PUBLIC COMMENTS:	December 1, 2009, Maricopa, Arizona.
9	DATES OF HEARING:	December 10 (Pre-Hearing Conference), 14, 17, 18, 21 10 and 28, 2009
11	PLACE OF HEARING:	Phoenix, Arizona
12	ADMINISTRATIVE LAW JUDGE:	Teena Wolfe
13	IN ATTENDANCE:	Kristin K. Mayes, Chairman 14 Gary Pierce, Commissioner 15 Sandra D. Kennedy, Commissioner 16 Bob Stump, Commissioner
17	APPEARANCES:	Mr. Timothy Sabo and Mr. Michael W. Patten, 18 ROSHKA, DeWULF & PATTEN, PLC, on behalf of 19 Applicants; 20 Mr. Daniel Pozefsky, Chief Counsel, on behalf of the 21 Residential Utility Consumer Office; 22 Mr. Garry D. Hays, GARRY D. HAYS, PC, on behalf 23 of New World Properties; 24 Mr. Greg Patterson, on behalf of the Water Utility 25 Association of Arizona; 26 Mr. Court S. Rich and Mr. Ryan Hurley, ROSE LAW 27 GROUP, INC., on behalf of the City of Maricopa; 28 Mr. Rick Fernandez, <i>in propria persona</i> ; and Mr. Wesley Van Cleve, Ms. Ayesha Vohra, and Mr. Charles Hains, Staff Attorneys, Legal Division, on behalf of the Utilities Division of the Arizona Corporation Commission.



1 difference if it could be shown that the use of IDA bonds to fund plant displaced ICFA funds as a  
 2 source for the money used to construct plant.<sup>145</sup> Staff asserts that because cash is fungible and ICFA  
 3 fees were deposited into the same account as investor proceeds and bond proceeds, it makes no  
 4 difference if the IDA bond proceeds were used or the ICFA fees were used to fund the construction  
 5 of plant.<sup>146</sup> Staff states that ultimately, it is Staff's position that developer-provided funds should be  
 6 treated as CIAC regardless of how they are used.<sup>147</sup> Staff states that no matter how the transaction is  
 7 structured, the developer ultimately receives service from one of the Global Utilities in return for  
 8 paying the ICFA fees.<sup>148</sup>

9 d. Tax Liability and Global Parent Expenses

10 Applicants assert that the proposed imputation of CIAC for all the ICFA fees is erroneous  
 11 because the imputation is for gross ICFA fees instead of for after-tax net income to Global Parent  
 12 from ICFA's.<sup>149</sup> Applicants contend that Global Parent could invest ICFA revenues in plant only after  
 13 it paid its expenses and satisfied its tax liabilities, and that only then would the ICFA fees be  
 14 available for utility purposes.<sup>150</sup> Applicants state that Global Parent incurred \$24,057,683 in tax  
 15 liability from the total \$60,084,123 in ICFA revenues, and therefore calculate net ICFA revenues of  
 16 \$34,859,816.<sup>151</sup> Global Applicants argue that under the matching principle, Global Parent expenses  
 17 must also be deducted from the ICFA revenues before any imputation of CIAC is made.<sup>152</sup>

18 i. Tax Liability on ICFA Fees

19 In regard to the issue of ICFA related tax liability, Staff states that because Global Parent is  
 20 organized as an LLC, a non-taxable entity, the income from Global Parent flows through to the  
 21 members untaxed.<sup>153</sup> If a member does not have offsetting tax losses from other sources, the member  
 22

23 A. That's correct.

Tr. at 885-886.

24 <sup>145</sup> Staff Reply Br. at 4.

<sup>146</sup> *Id.* at 4-5.

25 <sup>147</sup> Staff Br. at 28.

<sup>148</sup> *Id.* at 29.

26 <sup>149</sup> Co. Br. at 30.

<sup>150</sup> *Id.* at 33-34.

27 <sup>151</sup> Direct Testimony of Company witness Trevor Hill (Exh. A-7) at 32.

<sup>152</sup> Co. Reply Br. at 19; Co. Br. at 33; citing to Rebuttal Testimony of Matthew Rowell at 35 and Rejoinder Testimony of  
 Matthew Rowell (Exh. A-15) at 6-7.

28 <sup>153</sup> Surrebuttal Testimony of Linda Jaress (Exh. S-11) at 4.

1 pays taxes on his or her share of the earnings of the LLC, or if the LLC suffers net losses, those losses  
 2 can offset the profits from the members' other business interests.<sup>154</sup> Staff states that it appears that  
 3 members of Global Parent decided that the LLC would make distributions to the members in amounts  
 4 sufficient to pay the income tax on the earnings of the LLC allocated to each member.<sup>155</sup> Staff states  
 5 that another decision made by the members was for the Global Parent to account for the ICFA fees  
 6 received from developers as revenue to the Global Parent, and not as contributions to the Global  
 7 Utilities, and that this decision resulted in the proceeds from the ICFAs becoming taxable to the  
 8 members.<sup>156</sup> Staff does not believe that the choice to structure Global Parent and the ICFA contracts  
 9 in such a way that makes the ICFA proceeds taxable to the members constitutes a valid reason for the  
 10 Commission to recognize the income tax effect of the ICFA fees on the members' personal income  
 11 taxes.<sup>157</sup> Staff contends that the ICFA fees replace contributions and advances which are not taxable  
 12 to a utility and therefore, taxes on the fees should not be recognized.<sup>158</sup>

13 Applicants argue that Global Parent's choice of corporate structure is irrelevant, because even  
 14 if Global Parent were organized as a corporation, the ICFA fees would still generate a tax liability for  
 15 Global Parent.<sup>159</sup> WUAA argues that "taxes paid to the IRS on ICFAs did not go into rate base and  
 16 are not a component of the items to be removed from rate base,"<sup>160</sup> and that if ICFAs are determined  
 17 to be taxable CIAC, then it should be treated net of taxes.<sup>161</sup>

18 Applicants argue that the only difference is that instead of Global Parent directly paying the  
 19 government, the funds are paid to the members, who then pay the government.<sup>162</sup> However, as Staff  
 20 points out, Applicants provided no evidence to show whether the LLC members in fact realized a tax  
 21 liability on the ICFA fees.<sup>163</sup> The tax liability of \$24,057,683 represents Global Parent's calculated  
 22 estimation of the personal tax liability of its members.<sup>164</sup> Global Parent chose to distribute this

23 <sup>154</sup> *Id.*

24 <sup>155</sup> *Id.*

<sup>156</sup> *Id.*

25 <sup>157</sup> *Id.* at 5.

<sup>158</sup> *Id.*

26 <sup>159</sup> Co. Br. at 34.

<sup>160</sup> WUAA Br. at 8.

27 <sup>161</sup> *Id.* at 9.

<sup>162</sup> Co. Reply Br. at 20.

<sup>163</sup> Staff Reply Br. at 4.

28 <sup>164</sup> Tr. at 169-170.

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COMMISSIONERS

Mike Gleason, Chairman  
William A. Mundell  
Jeff Hatch-Miller  
Kristin K. Mayes  
Gary Pierce

BEFORE THE ARIZONA CORPORATION COMMISSION

ARIZONA WATER COMPANY, an Arizona corporation;

Complainant,

vs.

GLOBAL WATER RESOURCES, LLC, a foreign limited liability company; GLOBAL WATER RESOURCES, INC., a Delaware corporation; GLOBAL WATER MANAGEMENT, LLC, a foreign limited liability company; SANTA CRUZ WATER COMPANY, LLC, an Arizona limited liability corporation; PALO VERDE UTILITIES COMPANY, LLC, an Arizona limited liability corporation; GLOBAL WATER - SANTA CRUZ WATER COMPANY, an Arizona corporation; GLOBAL WATER - PALO VERDE UTILITIES COMPANY, an Arizona corporation; JOHN AND JANE DOES 1-20; ABC ENTITIES I - XX,

Respondents.

DOCKET NOS.

W-01445A-06-0200  
SW-20445A-06-0200  
W-20446A-06-0200  
W-03576A-06-0200  
SW-03575A-06-0200

PRE-FILED SUPPLEMENTAL DIRECT TESTIMONY OF JOHN S. THORNTON ON BEHALF OF ARIZONA WATER COMPANY

DIYAN CAVE LLY  
Two North Central Avenue, Suite 2200  
Phoenix, Arizona 85004-4406  
(602) 364-7000

2 ~~landowner or developer to GWR LLC might be one reason developers and landowners would prefer~~  
3 ICFAs over MXAs. The problem is that there is no effective protection for the operating utilities  
4 (such as ringfencing) to insulate them should financial difficulties hit GWR LLC. In fact, just the  
5 opposite is true: GWR LLC and the operating utilities are closely linked, as I discussed in the IDA  
6 and Wells Fargo credit sections of my testimony above. In the ICFA, GWR LLC agrees to provide  
7 utility service in exchange for fees. GWR LLC would then have to invest the balance above and  
8 beyond the ICFA fee through its own capital sources. In this way, the GWR LLC group increases  
9 its capital at risk in the project. The increased company investment should eventually be conveyed  
10 to the appropriate utility. The problem here is that GWR LLC keeps the fee (and might or might  
11 not reinvest it in the utility) but the business and financial risks are eventually borne by the  
12 operating utility because if GWR LLC suffers financially, then the operating utilities will eventually  
13 suffer.  
14

15  
16 In a MXA, the developer constructs or pays for the main extension and the developer is  
17 reimbursed over time if (and only if) the project is completed and ratepayers actually use and pay  
18 for the utility services. If the development falters then the MXA refunds decrease and typically the  
19 remaining balance becomes CIAC. Under the MXA, the developer bears the risk. Therefore, the  
20 assertion that the ICFA insulates the utility from risk is specious.  
21

22 **The ICFAs Are Tax-Inefficient and Reduce Available Investment in Local Infrastructure**

23  
24 **Q. EARLIER, YOU DISCUSSED HOW ICFAS ARE REVENUES TO GWR LLC. ARE**  
25 **THEY TAXED?**

26 **A.** Yes, ICFA revenues are taxable to GWR LLC and as such each Member pays personal  
27 income tax on those revenues. GWR LLC must distribute cash so that Members can pay their  
28

2 income tax bills. That leaves less cash to reinvest in local infrastructure. For example, let's say  
3 GWR LLC takes in \$10,000,000 in ICFA revenues in one year. Its members will, for example, face  
4 a 35 percent Federal income tax rate and a 7 percent State of Arizona tax rate, or 42 percent. So,  
5 \$4,200,000 must be distributed out to meet those tax obligations. That leaves \$5,800,000 to be  
6 reinvested in the systems. However, if the \$10,000,000 were taken in from developers as an  
7 Advance In Aid of Construction ("AIAC") under a MXA, then all \$10,000,000 would be available  
8 to invest in the utility system because those funds are not taxed. Therefore, the ICFA mechanism  
9 harms utility and ratepayer interests by reducing the investment available to build local  
10 infrastructure.  
11

12  
13 **Q. HOW MUCH TAX PAID COULD HAVE BEEN USED FOR LOCAL INVESTMENT**  
14 **TO DATE?**

15 A. GWR LLC reported \$45,348,775.13 of taxable ICFA income on returns through 2007 on  
16 which it has paid \$18,320,905.15, according to GWR LLC's report on ICFA revenues included as  
17 Exhibit JST-15.  
18

19  
20 **The ICFAs Will Result in Higher Rates Compared to MXAs**

21 **Q. WILL ICFAS RESULT IN HIGHER UTILITY RATES COMPARED TO MXAS?**

22 A. Yes, ICFAs will result in higher utility rates compared to MXAs. This result is easy to see  
23 because developer advances to AIAC are used to offset rate base dollar for dollar. Another way to  
24 think of the offset is to use AIAC as a line item in the rate of return calculation as a cost-free source  
25 of capital (and leave rate base alone). However, the ICFA funds, to the extent that they are  
26 reinvested in the local utility, appear as an equity investment. So, rather than appearing as an  
27  
28

**Global Water  
Docket No. W-01212A-12-0309 et al**

**James R. Armstrong  
Direct Testimony**

**Attachment A  
ICFA Agreement – Important Consideration No. 8 Support**

**ICFAs have the potential for generating extremely large, but uneven, cash flows for Global (corresponding directly to the receipt of ICFA funds), and Global Parent has committed to planning, coordinating, developing, and financing large infrastructure investments. The timing associated with Global's numerous commitments under the ICFAs also involve extremely large, but uncertain and uneven, cash flow requirements.**

1 Q. Mr. Armstrong, the language within the ICFA agreements identifies a number of  
2 responsibilities that Global Parent, also referred to as the "coordinator" in these  
3 agreements, is assuming, or will be required to deliver, in response to the receipt of  
4 the ICFA landowner payments. First, can you list some of these responsibilities or  
5 deliverables?

6 A. Yes. Under these agreements the coordinator agrees to:

- 7 1. Coordinate construction of services for water and wastewater treatment facilities;
- 8 2. Finance and assume responsibility for the carrying costs associated with regional  
9 infrastructure investments;
- 10 3. Arrange and coordinate the provision of utility services to the property;
- 11 4. Obtain "will serve" letters for the provision of utility service to the property;
- 12 5. Where applicable, help facilitate including landowner's property in an expanded  
13 CC&N;
- 14 6. Execute line and main extension agreements with developers;
- 15 7. Develop master utility plans; and,
- 16 8. Facilitate and water and wastewater service acquisitions and consolidations.

17  
18 Q. Has Staff been able to determine the portion of the individual landowner payments  
19 that were attributable to each of these deliverables?

20 A. No. Unfortunately, the information received from Global suggests that in negotiating the  
21 level of landowner payment required under a specific ICFA agreement, there was no  
22 specific effort made to match up a portion of each payment with the resulting obligation(s)  
23 Global was incurring. Staff issued several data requests to Global asking for information  
24 along this line, including STF-8.6, STF 8.10, STF 8.11, and STF 8.12. (Refer to  
25 Attachment B to my direct testimony.) The Company's response was that the amount of  
26 the required landowner payments ultimately agreed to under each separate ICFA

OPEN MEETING AGENDA ITEM ✓

BEFORE THE ARIZONA CORPORATION COMMISSION

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COMMISSIONERS

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

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AZ CORP COM  
Director Utilities

IN THE MATTER OF THE COMMISSION'S  
GENERIC EVALUATION OF THE  
REGULATORY IMPACTS FROM THE USE  
OF NON-TRADITIONAL FINANCING  
ARRANGEMENTS BY WATER UTILITIES  
AND THEIR AFFILIATES.

DOCKET NO. W-00000C-06-0149

STAFF'S NOTICE OF FILING

Attached is the Report of Hullmann & Company, P.C. on Applying Agreed Upon Procedures with respect to the Schedule of Infrastructure Coordination and Finance Agreements ("ICFAs"), the Schedule of Net Plant Assets and Specified Cash Resources and the Schedule of Utility System Acquisitions of Global Water Resources, Inc. as of December 31, 2008.

RESPECTFULLY SUBMITTED this 21<sup>st</sup> day of December, 2012.



Charles H. Hains, Esq.  
Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007  
(602) 542-3402

Original and Thirteen (13) Copies filed  
this 21<sup>st</sup> day of December, 2012, with:

Docket Control  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

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...  
...



Global Water Resources, Inc.  
 Schedule of Infrastructure Coordination and Finance Agreements (ICFA)  
 Agreements Signed Prior to December 31, 2008

Party(ies) to agreement <sup>1</sup>	Effective date (approx)	Recordation number	Estimated number of connections	Per unit fee	Total estimated fees collectible	Funds collected-as of December 31,					Funds eligible for receipt after December 31, 2008	
						2004	2005	2006	2007	2008		
Hacienda	1/26/2004		187	1,950	325,650	183,050	130,650	1,950	-	-	-	-
Hacienda	1/26/2004		110	1,950	214,500	163,800	50,700	68,250	-	-	-	-
Hacienda	1/27/2004		81	1,950	118,950	120,900	167,700	1,950	3,900	-	-	-
Miracety	2/8/2004		178	1,950	347,100	105,300	187,200	3,900	-	-	-	-
Ryland	10/28/2003		152	1,950	296,400	86,300	208,650	13,550	-	-	-	-
Ryland	10/28/2003		148	1,950	286,600	86,300	208,650	13,550	-	-	-	-
<b>TOTAL OTHER AGREEMENTS SIMILAR IN NATURE TO ICFA</b>					<b>5,470,982</b>	<b>1,527,930</b>	<b>2,425,800</b>	<b>891,150</b>	<b>270,650</b>	<b>87,750</b>	<b>187,712</b>	
<b>OTHER AGREEMENTS*</b>												
Coltonwood Land Group VIII, LLC	3/16/2004		1,290	1,900	2,451,000	-	2,451,000	-	-	-	-	202,500
Land Solutions Maricopa LLC <sup>2</sup>	10/15/2003				400,000	-	197,500	-	-	-	-	-
Land Solutions Maricopa LLC <sup>2</sup>	10/27/2003		902		200,000	-	200,000	-	200,000	-	-	-
Lanner Communities <sup>3</sup>	12/3/2004		108	1,900	205,200	-	205,200	-	-	-	-	-
Maricopa Meadows, LLC <sup>3,4</sup>	12/3/2004		124	1,900	235,600	-	235,600	-	-	-	-	-
Maricopa Meadows, LLC <sup>3,4</sup>	12/3/2004		114	1,900	216,600	-	216,600	-	-	-	-	-
<b>TOTAL OTHER AGREEMENTS</b>					<b>3,708,400</b>		<b>3,305,900</b>		<b>200,000</b>			<b>202,500</b>
<b>TOTAL ICFAS, OTHER AGREEMENTS, AND OTHER AGREEMENTS SIMILAR IN NATURE TO ICFA</b>					<b>11,477,925,748</b>	<b>4,996,856</b>	<b>20,543,309</b>	<b>25,939,877</b>	<b>4,656,470</b>	<b>3,946,100</b>	<b>1,418,668,775</b>	

**Additional Information**

<sup>1</sup> Parties include Global Water Resources, Inc. or its subsidiaries, and/or its predecessors.  
<sup>2</sup> Annuities may include funds whose receipt are contingent upon Global Water Resources, Inc. satisfying certain conditions. See the agreed upon procedures report for a description of the conditions Global must satisfy for receipt of the majority of the funds.  
<sup>3</sup> Annuities may include funds whose receipt are contingent upon Global Water Resources, Inc. satisfying certain conditions. See the agreed upon procedures report for a description of the conditions Global must satisfy for receipt of the majority of the funds.  
<sup>4</sup> Additional footnotes are defined in the Independent Accountants' Findings section on page 13.

**Global Water  
Docket No. W-01212A-12-0309 et al**

**James R. Armstrong  
Direct Testimony**

**Attachment A  
ICFA Agreement – Important Consideration No. 9 Support**

**Global has never contended that ICFA's are non-jurisdictional to the ACC.**

DOCKET NOs. SW-02445A-09-0077 *et al.*

**Rebuttal Testimony  
of  
Trevor T. Hill**

**November 20, 2009**

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1 The Commission is expert in conducting economic, systemic, and financial benefits  
2 analysis. I am not familiar with how, or whether the Commission evaluates societal  
3 benefits, so I would offer my view that the appropriate test for societal benefits is this:

4 The goal of sustainable water resources development and management is  
5 to meet water needs reliably and equitably for current and future  
6 generations by designing integrated and adaptable systems, optimizing  
7 water-use efficiency, and making continuous efforts toward preservation  
8 and restoration of natural ecosystems.<sup>20</sup>

8 Q. Do you have any concluding remarks regarding the ICFAs?

9 A. Yes. I believe there is no debate that the consolidation of small undercapitalized utilities is  
10 a good thing. It is important to emphasize that such consolidation should not take place at  
11 the regulated utility level (e.g., Santa Cruz should not be buying other water companies.)  
12 Rather, consolidation should take place at the holding company level. Since ICFAs were  
13 used as a tool to effectuate consolidation they had to be executed at the holding company  
14 (GWR) level. Because of this, revenue generated by the ICFAs is parent-level revenue and  
15 thus is taxable. Ignoring the tax liability associated with the ICFA revenues is  
16 inappropriate regardless of the regulatory treatment ultimately decided upon for the ICFA  
17 revenue.

18  
19 Global has never contended that ICFAs are non-jurisdictional. Global has always  
20 contended that ICFAs are in the public interest and that upon examination the Commission  
21 would conclude that as well. Global's position on ICFAs has been consistent: they are a  
22 tool that allows for consolidation and that offsets the carrying costs associated with  
23 emplacing regionally scaled infrastructure. The ICFA revenue available to use for these  
24 purposes is offset by the tax liability generated by those revenues. Also, as Staff points  
25 out, parent-level expenses (that are not allocated to the utilities) also offset the ICFA  
26

27  

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<sup>20</sup> *Id.*, Page 7.

**Global Water  
Docket No. W-01212A-12-0309 et al**

**James R. Armstrong  
Direct Testimony**

**Attachment A  
ICFA Agreement – Important Consideration No. 10 Support**

**Developers have provided ICFA funds to Global Parent which, comingled with equity and debt provided by Global Parent, have been used for the provision of utility service, whether through acquisitions, carrying costs, or plant construction.**

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

Arizona Corporation Commission

DOCKETED

- KRISTIN K. MAYES - Chairman
- GARY PIERCE
- PAUL NEWMAN
- SANDRA D. KENNEDY
- BOB STUMP

SEP 15 2010

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IN THE MATTER OF THE APPLICATION OF GLOBAL WATER - PALO VERDE UTILITIES COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. SW-20445A-09-0077

IN THE MATTER OF THE APPLICATION OF VALENCIA WATER COMPANY - GREATER BUCKEYE DIVISION FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-02451A-09-0078

IN THE MATTER OF THE APPLICATION OF WILLOW VALLEY WATER COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-01732A-09-0079

IN THE MATTER OF THE APPLICATION OF GLOBAL WATER - SANTA CRUZ WATER COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-20446A-09-0080

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH FOR THE ESTABLISHMENT OF JUST AND

DOCKET NO. W-02450A-09-0081

1 REASONABLE RATES AND CHARGES FOR  
2 UTILITY SERVICE DESIGNED TO REALIZE A  
3 REASONABLE RATE OF RETURN ON THE  
4 FAIR VALUE OF ITS PROPERTY  
5 THROUGHOUT THE STATE OF ARIZONA.

6 IN THE MATTER OF THE APPLICATION OF  
7 VALENCIA WATER COMPANY - TOWN  
8 DIVISION FOR THE ESTABLISHMENT OF JUST  
9 AND REASONABLE RATES AND CHARGES  
10 FOR UTILITY SERVICE DESIGNED TO  
11 REALIZE A REASONABLE RATE OF RETURN  
12 ON THE FAIR VALUE OF ITS PROPERTY  
13 THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-01212A-09-0082

DECISION NO. 71878

OPINION AND ORDER

8 PUBLIC COMMENTS: December 1, 2009, Maricopa, Arizona.

9 DATES OF HEARING: December 10 (Pre-Hearing Conference), 14, 17, 18, 21  
10 and 28, 2009

11 PLACE OF HEARING: Phoenix, Arizona

12 ADMINISTRATIVE LAW JUDGE: Teena Wolfe

13 IN ATTENDANCE: Kristin K. Mayes, Chairman  
14 Gary Pierce, Commissioner  
15 Sandra D. Kennedy, Commissioner  
16 Bob Stump, Commissioner

17 APPEARANCES: Mr. Timothy Sabo and Mr. Michael W. Patten,  
18 ROSHKA, DeWULF & PATTEN, PLC, on behalf of  
19 Applicants;  
20 Mr. Daniel Pozefsky, Chief Counsel, on behalf of the  
21 Residential Utility Consumer Office;  
22 Mr. Garry D. Hays, GARRY D. HAYS, PC, on behalf  
23 of New World Properties;  
24 Mr. Greg Patterson, on behalf of the Water Utility  
25 Association of Arizona;  
26 Mr. Court S. Rich and Mr. Ryan Hurley, ROSE LAW  
27 GROUP, INC., on behalf of the City of Maricopa;  
28 Mr. Rick Fernandez, *in propria persona*; and  
Mr. Wesley Van Cleve, Ms. Ayesha Vohra, and Mr.  
Charles Hains, Staff Attorneys, Legal Division, on  
behalf of the Utilities Division of the Arizona  
Corporation Commission.

1 providing utility service within the service territories of the Utilities included in these consolidated  
2 rate applications. Neither is it disputed that landowners and developers in the service territories of  
3 WUGT, Palo Verde, and Santa Cruz paid Global Parent ICFA fees pursuant to ICFA agreements,  
4 through which Global Parent agreed to provide utility service to the landowners/developers.  
5 Applicants request that the Commission put aside the normal regulatory ratemaking treatment of  
6 contributions that were given in exchange for utility service, because Global's innovative means of  
7 collecting and spending the contributions allows it to pursue total water management goals. This  
8 Commission is tasked with protecting the interests of utilities and ratepayers alike, and this important  
9 task requires a careful balancing. One of the foremost tenets of ratemaking is unchanging, however,  
10 when making a determination that affects both utility and ratepayer, and that is the inclusion in rates  
11 of the cost of providing utility service. We must ensure that captive monopoly ratepayers pay for the  
12 costs of providing utility service, but no more. Part of that cost of service includes a fair and  
13 reasonable return to the provider of the utility service on funds that it has invested in the utility in  
14 order to provide reasonable and adequate service to its ratepaying customers. Here, Applicants have  
15 not "invested" ICFA funds for the purpose of providing utility service. Rather, developers have  
16 provided ICFA funds to Global Parent which, commingled with equity and debt provided by  
17 Applicants' parent company, have been used for the provision of utility service, whether through  
18 acquisitions, carrying costs, or plant construction. Allowing developer contributed funds to remain in  
19 rate base would require captive ratepayers to pay Applicants a return on developer-provided ICFA  
20 funds, which would violate fundamental ratemaking principles and would unjustly and unreasonably  
21 enrich Applicants at ratepayer expense. For the reasons set forth in the arguments of Maricopa,  
22 RUCO and Staff, Staff's CIAC adjustments are just, reasonable, and in the public interest, and will be  
23 adopted.

24 We believe the Commission should commence a generic investigation which looks at how  
25 best to achieve the Commission's objectives with regard to encouraging the acquisition of troubled  
26 water companies and the development of regional infrastructure where appropriate. As part of this  
27 proceeding, we would like stakeholders, including Global and Staff, to also address in workshops  
28 whether ICFAs, or other mechanisms, if properly segregated and accounted for, could be utilized to



**Global Water  
Docket No. W-01212A-12-0309 et al**

**James R. Armstrong  
Direct Testimony**

**Attachment A  
ICFA Agreement – Important Consideration No. 11 Support**

**In Decision No. 71878, the Commission left open the possibility that the treatment afforded ICFAs could be different in a future rate case.**

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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES - Chairman  
GARY PIERCE  
PAUL NEWMAN  
SANDRA D. KENNEDY  
BOB STUMP

Arizona Corporation Commission

DOCKETED

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IN THE MATTER OF THE APPLICATION OF GLOBAL WATER - PALO VERDE UTILITIES COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. SW-20445A-09-0077

IN THE MATTER OF THE APPLICATION OF VALENCIA WATER COMPANY - GREATER BUCKEYE DIVISION FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-02451A-09-0078

IN THE MATTER OF THE APPLICATION OF WILLOW VALLEY WATER COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-01732A-09-0079

IN THE MATTER OF THE APPLICATION OF GLOBAL WATER - SANTA CRUZ WATER COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-20446A-09-0080

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH FOR THE ESTABLISHMENT OF JUST AND

DOCKET NO. W-02450A-09-0081

1 REASONABLE RATES AND CHARGES FOR  
2 UTILITY SERVICE DESIGNED TO REALIZE A  
3 REASONABLE RATE OF RETURN ON THE  
4 FAIR VALUE OF ITS PROPERTY  
5 THROUGHOUT THE STATE OF ARIZONA.

6 IN THE MATTER OF THE APPLICATION OF  
7 VALENCIA WATER COMPANY - TOWN  
8 DIVISION FOR THE ESTABLISHMENT OF JUST  
9 AND REASONABLE RATES AND CHARGES  
10 FOR UTILITY SERVICE DESIGNED TO  
11 REALIZE A REASONABLE RATE OF RETURN  
12 ON THE FAIR VALUE OF ITS PROPERTY  
13 THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-01212A-09-0082

DECISION NO. 71878

**OPINION AND ORDER**

8	PUBLIC COMMENTS:	December 1, 2009, Maricopa, Arizona.
9	DATES OF HEARING:	December 10 (Pre-Hearing Conference), 14, 17, 18, 21 and 28, 2009
10		
11	PLACE OF HEARING:	Phoenix, Arizona
12	ADMINISTRATIVE LAW JUDGE:	Teena Wolfe
13	IN ATTENDANCE:	Kristin K. Mayes, Chairman Gary Pierce, Commissioner Sandra D. Kennedy, Commissioner Bob Stump, Commissioner
14		
15	APPEARANCES:	Mr. Timothy Sabo and Mr. Michael W. Patten, ROSHKA, DeWULF & PATTEN, PLC, on behalf of Applicants;
16		
17		Mr. Daniel Pozefsky, Chief Counsel, on behalf of the Residential Utility Consumer Office;
18		
19		Mr. Garry D. Hays, GARRY D. HAYS, PC, on behalf of New World Properties;
20		
21		Mr. Greg Patterson, on behalf of the Water Utility Association of Arizona;
22		
23		Mr. Court S. Rich and Mr. Ryan Hurley, ROSE LAW GROUP, INC., on behalf of the City of Maricopa;
24		
25		Mr. Rick Fernandez, <i>in propria persona</i> ; and
26		
27		Mr. Wesley Van Cleve, Ms. Ayesha Vohra, and Mr. Charles Hains, Staff Attorneys, Legal Division, on behalf of the Utilities Division of the Arizona Corporation Commission.
28		

1 finance the actual acquisition of troubled water companies, subject to Commission approval.

2        Additionally, we would also like stakeholders to address whether ICFAs, or some other  
3 mechanism, if properly segregated and accounted for, would be appropriate for use in covering such  
4 expenses as a portion of the carrying costs associated with unused regional water and wastewater  
5 facilities or infrastructure which meets the Commission's objectives. Additionally, we would like the  
6 question of whether other mechanisms not addressed in this case would be appropriate in inducing  
7 such regional water and wastewater infrastructure, and the acquisition of troubled water companies,  
8 such as acquisition adjustments, rate premiums, or Distribution System Investment Charges.  
9 Therefore, we will require Staff to notice and facilitate, and Global to participate in, stakeholder  
10 workshops designed to address these issues, and make recommendations to the Commission on the  
11 issues discussed in the workshops, including whether it is appropriate to adopt the recommendations  
12 in the next Global Utility rate case, as well as other future rate cases. The workshops shall be noticed  
13 and held in the existing Generic Docket.

14        While we decline to approve the Applicants' requested treatment of ICFAs in this Order, we  
15 believe the issue could be more fully informed by the Commission's workshop process. In the event  
16 that the workshop process leads to recommendations for a different treatment of ICFAs than in this  
17 Order, the Applicants may request review of ICFAs in accordance with the workshop  
18 recommendations in a future rate case.

19        **C. Fair Value Rate Base Summary.**

20        Applicants did not prepare schedules showing the elements of Reconstruction Cost New Rate  
21 Base ("RCND").<sup>170</sup> Instead, Applicants requested that their Original Cost Rate Base ("OCRB") be  
22 treated as their Fair Value Rate Base ("FVRB").<sup>171</sup> Based on the discussion of rate base issues set  
23 forth above, we find the Applicants' FVRB to be as follows:

24	Palo Verde	Valencia- Greater Buckeye	Willow Valley	Santa Cruz	WUGT	Valencia- Town
25						
26	\$53,314,083	\$929,057	\$2,251,164	\$39,155,692	(\$4,186,150)	\$4,240,018

27  
28 <sup>170</sup> Direct Testimony of Company witness Gregory Barber (Exh. A-20) at 16.

<sup>171</sup> *Id.*

A	B	C	D	E	F	G	H	I	J	K
Order No.	ICFA Fees Received Since 2009 - 2011	ICFA Fees Last Rate Case 2012	ICFAs Through 12/31/2012	Staff Amortiz Thru 2012	Staff Net as of 12/31/2012	Imputed Net Hook-Up Fee	Applicable System	Company Filled but Adjusted Thru 2012	Staff Recommended Rate Base Adjustment	Staff Rate Base less Imputed Net Hook-Up fee
Palo Verde - excess capacity	14,449,976		14,449,976			39.68%				
Palo Verde - rate base reduction	10,991,128	611,890	14,902,640							
<b>Total Palo Verde</b>	<b>25,441,104</b>		<b>29,352,616</b>							
Santa Cruz - excess capacity	17,941,342		17,941,342							
Santa Cruz - rate base reduction	6,600,076	590,252	10,373,264							
<b>Total Santa Cruz</b>	<b>24,541,418</b>		<b>28,314,606</b>							
Greater Tonopah	7,085,645	1,218,750	8,354,395	(2,138,725)	6,215,670		Tonopah	1,704,428	(2,466,378)	(761,950)
Excess Capacity	32,391,318		32,391,318		32,391,318					
Palo Verde - rate base reduction	10,991,128	611,890	14,902,640	(2,339,715)	12,562,926		Palo Verde	59,571,282	(10,718,719)	48,852,543
Santa Cruz - rate base reduction	6,600,076	590,252	10,373,264	(2,116,146)	8,257,118		Santa Cruz	37,758,087	(10,395,549)	27,362,518
<b>Sub-total</b>	<b>57,068,167</b>	<b>2,420,892</b>	<b>66,021,617</b>	<b>(6,594,585)</b>	<b>59,427,031</b>					
HUC	2,140,455		2,140,455		2,140,455					
Picahci Cove	500,500		500,500		500,500					
Unexplained	374,680		374,680		374,680					
	60,083,802	6,532,558	69,037,252	(6,594,585)	62,442,666					
	60,084,123		68,987,572		6,594,585					
<b>variance</b>	<b>321</b>		<b>(49,680)</b>		<b>89,037,252</b>	<b>(23,580,546)</b>	<b>45,456,606</b>	<b>99,033,757</b>	<b>(23,580,646)</b>	<b>75,453,111</b>
							(2,140,455) HUC			
							(500,500) Picahci Cove			
							(6,594,585) Amortized			
							<b>36,221,065</b>			<b>Net ICFAs to Company</b>

Global Water Resources,  
Inc  
Through 12/31/2012

Attachment D

file-Schedule of ICFA Agmts and Pays Through 2012 by Area - Amortizing (cap exp) and average payment calculation

Builder/Owner/GW Reference	Estimated number of connections	Per unit fee	Total estimated fees collectable	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
GRAND TOTAL ALL AGREEMENTS	384,314	3,742	1,475,638,488	4,988,666	20,543,309	25,938,677	4,856,470	3,946,100	3,696,252	273,740	2,512,566	2,420,892	68,987,572
													24,857,278

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0.53447354355\*

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0.742383752\*

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0.53447354355=

0.3967844746\*

Global Water Resources, Inc  
Through 12/31/2012

		Attachment D										Grand Total		
		Funds collected as of December 31,												
Builder/Owner/GW Reference	Estimated number of connections	Per unit fee	Total estimated fees collectable	2004	2005	2006	2007	2008	2009	2010	2011	2012		
CC&N Area														
Fullon Homes	891	1,950	1,737,450	235,950	840,450	522,600	124,400						884	1,950
Subtotal	891		1,737,450	235,950	840,450	522,600	124,400							1,723,400
Mercury Centrax	178	1,950	347,100	120,900	167,700	1,950	56,550						178	1,950
Hacienda	176	1,950	343,200	79,950	220,350	42,900							176	1,950
Engle	187	1,950	325,650	193,050	130,650		1,950						187	1,950
Engle	123	1,950	239,850	52,650	115,050	3,900	3,900	50,700					117	1,950
Engle	138	1,950	268,100		64,350	56,550	18,800	40,950					91	1,950
Engle	2	1,950	3,900					3,900					2	1,950
Centrax	191	1,950	372,450	13,650	179,400	176,900			3,900				191	1,950
Ryland	152	1,950	296,400	105,300	187,200	3,900							152	1,950
Hacienda	110	1,950	214,500	163,900	50,700								110	1,950
Hacienda	61	1,950	118,950		50,700		68,250						61	1,950
Avalite	163	1,794	292,422	249,667				(7,800)					139	1,794
Brown	161	1,950	313,950	60,450	191,100	70,200							161	1,950
Brown	10	1,950	19,500		19,500								10	1,950
Ryland	148	1,950	288,600	86,300	208,650	13,650							148	1,950
Avalite	180	1,794	287,040	265,333									148	1,950
Subtotal	1,940		3,732,612	1,391,050	1,585,350	368,550	146,250	87,750	6,890				159	1,794
Meritage/Hacienda Homes	488	2,300	1,145,400		1,145,400								488	2,300
Meritage/Hacienda Homes	661	2,300	1,520,300			1,611,518							701	2,300
Meritage/Hacienda Homes	507	2,300	1,166,100											
Meritage/Hacienda Homes	617	2,300	1,419,100											
Subtotal	2,283		5,260,900		1,145,400	1,611,518								2,766,918
Engle Homes	29	4,200	121,800		129,639								31	4,200
Meritage	685	4,650	3,176,960	3,130,941	44,872								683	4,650
Subtotal	714		3,298,760	3,130,941	174,711				2,650,000			500,000	689	4,425
Standard Pacific	116	2,300	266,800		266,800								116	2,300
Parcel 2 (45 x 116) Morrison	99	2,300	227,700		227,700								99	2,300
Standard Pacific	106	2,300	243,800		243,800								106	2,300
Centrax	126	2,300	289,600		289,600								126	2,300
Centrax	140	2,300	322,000		322,000								140	2,300
Centrax	119	2,300	273,700		273,700								119	2,300
Centrax	143	2,300	328,900		328,900								143	2,300
Parcel 9 (70 x 125) Morrison	97	2,300	223,100		223,100								97	2,300
Standard Pacific	103	2,300	236,900		236,900								103	2,300
Parcel 10 (65 x 116) Richmond	138	2,300	317,400		317,400								138	2,300
Standard Pacific	146	2,300	335,600		335,600								146	2,300
Centrax	128	2,300	197,800		197,800								128	2,300
Parcel 15 (45 x 110) Quits	132	2,300	303,600		303,600					16,216			132	2,300
Landholdings	144	2,300	331,200		331,200								144	2,300

Global Water Resources,  
Inc  
Through 12/31/2012

Attachment D

The Global - Armstrong Attachments C and D - Staff CFA fee base reduction recommendations  
Funds collected as of December 31,

Bullseye/Owner/GW Reference Landholdings	Estimated number of connections	Per unit fee	Total estimated fees collectable	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
Our Lady of Grace	125	2,300	287,500		287,500								287,500
Shea Commercial	182	2,300	418,600		418,600								418,600
Shea Commercial	184	2,300	425,800										425,800
Shea Commercial	33	2,300	75,900										75,900
Lead Charter School	194	2,300	445,600				487,194						487,194
Hope Community Church	8	2,300	18,216										18,216
Parcel F - commercial	110	2,300	253,989								99,421		253,989
Parcel B - commercial	166	2,300	381,322										381,322
Parcel C - commercial	130	2,300	299,074										299,074
Interra	34	2,300	78,053										78,053
Subtotal	168	2,300	395,400										395,400
	3,178		7,305,044		4,898,000		487,194			18,216	99,421		5,813,831



Global Water Resources,  
Inc  
Through 12/31/2012

Attachment D  
Funds collected as of December 31,

Builder/Owner/GW Reference	Estimated number of connections	Per unit fee	Total estimated fees collectable	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
Performance Construction	640	2,200 \$	1,408,000 \$	-	-	-	-	-	-	-	-	-	-
Subtotal													
Newport Holdings, Inc.	700	2,200 \$	1,540,000 \$	-	-	-	-	-	-	-	-	-	-
Subtotal													
Elliott	216	2,200 \$	473,000 \$	-	473,000 \$	-	-	-	-	-	-	-	473,000
Ryland	202	2,200 \$	444,400 \$	-	444,400 \$	-	-	-	-	-	-	-	444,400
Elliott	230	2,200 \$	506,000 \$	-	506,000 \$	-	-	-	-	-	-	-	506,000
Elliott	143	2,200 \$	314,600 \$	-	-	-	-	-	157,288 \$	157,288 \$	-	-	314,598
Subtotal					1,423,400 \$	-	-	-	157,288 \$	157,288 \$	-	-	1,737,988
Chandler Boys Ventures, LLC (small commercial)	3	3,000 \$	9,000 \$	-	-	-	-	-	9,000 \$	-	-	-	9,000
Subtotal									9,000 \$				9,000
Total - SCWIC and PVOIC Original CCRN Area	14282		31,297,258 \$	4,757,941 \$	10,068,311 \$	8,164,494 \$	767,844 \$	87,750 \$	2,722,149 \$	175,515 \$	98,421 \$	500,000 \$	27,343,424
													\$ 27,343,424.47

Global Water Resources,  
Inc  
Through 12/31/2012

		Attachment D											
		Funds collected as of December 31,											
		file Global - Armstrong Attachments C and D - Staff CSA rate base reduction recommendations											
Builder/Owner/GW Reference	Estimated number of connections	Per unit fee	Total estimated fees collectable	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
Neely	560	2,800	\$ 1,568,000	-	-	-	-	-	-	-	-	-	-
Subtotal	560		\$ 1,568,000	-	-	-	-	-	-	-	-	-	-
Neely	560	2,800	\$ 1,568,000	-	-	-	-	-	-	-	-	-	-
Subtotal	560		\$ 1,568,000	-	-	-	-	-	-	-	-	-	-
Neely	560	2,800	\$ 1,568,000	-	-	-	-	-	-	-	-	-	-
Subtotal	560		\$ 1,568,000	-	-	-	-	-	-	-	-	-	-
Commercial	560	2,800	\$ 1,568,000	-	-	-	-	-	-	-	-	-	-
Subtotal	560		\$ 1,568,000	-	-	-	-	-	-	-	-	-	-
Commercial	110	2,800	\$ 309,120	-	-	-	-	-	-	-	-	-	-
Subtotal	110		\$ 309,120	-	-	-	-	-	-	-	-	-	-
Shea Homes	580	2,800	\$ 1,624,000	28,000	1,540,000	-	-	-	-	-	-	-	-
Ryland	229	2,800	\$ 641,200	11,450	629,750	-	-	-	-	-	-	-	-
Northon	188	2,800	\$ 528,400	9,400	519,000	-	-	-	-	-	-	-	-
Shea Homes	1,185	2,800	\$ 3,318,000	60,000	534,800	-	-	-	-	-	-	-	-
Subtotal	2,182		\$ 6,083,600	108,850	3,221,550	-	-	-	-	-	-	-	-
Lennar	103	2,800	\$ 288,400	2,575	285,825	-	-	-	-	-	-	-	2,800
DR Horton	122	2,800	\$ 341,600	3,487	362,850	-	-	-	-	-	-	-	2,800
Lennar	102	2,800	\$ 285,600	2,850	288,450	-	-	-	-	-	-	-	2,800
DR Horton	111	2,800	\$ 310,800	2,775	308,025	-	-	-	-	-	-	-	2,800
Lennar	123	2,800	\$ 344,400	3,075	341,325	-	-	-	-	-	-	-	2,800
Lennar	122	2,800	\$ 341,600	3,050	338,550	-	-	-	-	-	-	-	2,800
Subtotal	621		\$ 2,288,800	20,835	2,278,275	-	-	-	-	-	-	-	2,800
WestPac	1,306	2,800	\$ 3,656,800	32,850	631,656	-	-	-	-	-	-	-	2,800
Subtotal	1,306		\$ 3,656,800	32,850	631,656	-	-	-	-	-	-	-	2,800
WestPac	-	2,800	\$ -	3,600	(3,600)	-	-	-	-	-	-	-	2,800
Subtotal	-		\$ -	3,600	(3,600)	-	-	-	-	-	-	-	2,800
Cook/EI Donado, LLC	1,078	2,800	\$ 3,018,400	-	-	-	-	-	-	-	-	-	-
Subtotal	1,078		\$ 3,018,400	-	-	-	-	-	-	-	-	-	-
Lites/EI Donado, LLC	1,092	2,800	\$ 3,025,600	-	-	-	-	-	-	-	-	-	-
Subtotal	1,092		\$ 3,025,600	-	-	-	-	-	-	-	-	-	-
Paul Gore	1,028	2,800	\$ 2,878,400	-	-	-	-	-	-	-	-	-	-
Subtotal	1,028		\$ 2,878,400	-	-	-	-	-	-	-	-	-	-
Ray Christian	322	2,800	\$ 901,600	-	-	-	-	-	-	-	-	-	-
Subtotal	322		\$ 901,600	-	-	-	-	-	-	-	-	-	-
Western Final	284	2,800	\$ 795,200	-	-	-	-	-	-	-	-	-	-
Subtotal	284		\$ 795,200	-	-	-	-	-	-	-	-	-	-
Maricopa-Casa Grande Hwy 813	1,838	2,800	\$ 5,146,400	-	-	-	-	-	-	-	-	-	-
Subtotal	1,838		\$ 5,146,400	-	-	-	-	-	-	-	-	-	-
W/ half of Sec 10 TGS R4E	1,830	2,800	\$ 5,104,000	-	-	-	-	-	-	-	-	-	-
Subtotal	1,830		\$ 5,104,000	-	-	-	-	-	-	-	-	-	-

Global Water Resources,  
Inc  
Through 12/31/2012

Attachment D  
Funds collected as of December 31,  
ReGlobal - Armstrong Attachments C and D - Staff ICFA rate base reflation recommendations

Builder/Owner/GW Reference	Estimated number of connections	Per unit fee	Total estimated fees collectable	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
Subtotal	1,930		\$ 6,404,000					69,500					69,500
SWC Sec 4 TSS R4E	1,120	2,800	\$ 3,136,000										
Subtotal	1,120		\$ 3,136,000										
SWC and SEQ of NWQ	560	2,800	\$ 1,568,000										
Subtotal	560		\$ 1,568,000										

Global Water Resources, Inc  
Through 12/31/2012

Attachment D  
Funds collected as of December 31,

Builder/Owner/GW Reference	Estimated number of connections	Per unit fee	Total estimated fees collectable	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
SCJ/P Southwest Expansion	2,100	3,300	6,930,000	-	52,600	1,050,000	-	-	-	-	-	-	10,985,621
WAL, LLC (B/Lung/Westpac)	2,100	3,300	6,930,000	-	82,660	1,050,000	-	-	-	-	-	-	1,102,500
Subtotal													1,102,500
Trend Homes, Inc./Westpac	72	3,300	237,600	-	1,800	-	-	-	-	-	-	-	1,800
Subtotal													1,800
Armatillo Creek Unit 1 / Shea Homes	600	3,300	1,980,000	-	15,000	1,965,000	-	-	-	-	-	-	1,980,000
Armatillo Creek Unit 2 / Westpac	773	3,300	2,560,900	-	19,325	386,600	-	-	-	-	-	-	406,625
Armatillo Creek Unit 3 / Westpac	776	3,300	2,560,900	-	19,400	386,600	-	-	-	-	-	-	407,400
Subtotal	2,149		7,091,700		53,725	2,738,200							2,783,225
Armatillo Creek South, LLC and Desert Cactians, LLC	1,068	3,300	3,522,760	-	28,700	624,000	-	-	-	-	-	-	660,700
Subtotal	1,068		3,522,760		28,700	624,000							660,700
CH Construction Company	1,225	3,300	4,042,500	-	30,625	-	-	612,500	-	-	-	-	643,125
Subtotal	1,225		4,042,500		30,625			612,500					643,125
HAM Maricopa, LLC	148	3,300	488,400	-	-	-	3,700	-	-	-	-	-	3,700
Subtotal	148		488,400				3,700						3,700
HAM Papago, LLC	418	3,300	1,372,746	-	-	-	-	-	-	-	-	-	-
Subtotal	418		1,372,746										-
HAM-Mesa, LLC	2,381	3,300	7,791,284	-	-	-	-	-	-	-	-	-	-
Subtotal	2,381		7,791,284										-
Pecan Woods, LLC	581	3,300	1,817,300	-	14,525	290,500	-	-	-	-	-	-	305,025
Subtotal	581		1,817,300		14,525	290,500							305,025
Terrazo/Miller & White 815, LLC	2,834	3,300	9,352,200	-	73,092	-	-	-	-	-	-	-	73,092
Subtotal	2,834		9,352,200		73,092								73,092
HAM Maricopa, LLC/HAM Queen Creek, LLC	1,107	3,300	3,652,541	-	-	-	-	-	-	-	-	-	-
Subtotal	1,107		3,652,541										-
HAMs and Truets	4,145	3,300	13,678,500	-	-	103,625	-	-	-	-	-	-	103,625
Subtotal	4,145		13,678,500			103,625							103,625
Hidden Valley Ranch 1, LLC	3,010	3,300	9,933,000	-	-	-	-	-	-	75,250	-	-	75,250
Subtotal	3,010		9,933,000							75,250			75,250
Hidden Valley Ranch 2, LLC	919	3,300	3,032,700	-	-	-	-	-	-	22,975	-	-	22,975
Subtotal	919		3,032,700							22,975			22,975
Dennis & Carolyn Peed	539	3,300	1,776,700	-	-	-	-	-	-	-	-	-	-
Subtotal	539		1,776,700										-
RJZ, LLC / Maricopa Opus	725	3,300	2,392,500	-	-	18,125	-	-	-	-	-	-	18,125
Subtotal	725		2,392,500			18,125							18,125
Vineyards, LLC	1,120	3,300	3,696,000	-	-	24,000	-	-	-	-	-	-	24,000
Subtotal	1,120		3,696,000			24,000							24,000

Global Water Resources,  
Inc  
Through 12/31/2012

Attachment D  
Funds collected as of December 31,  
Global Water Resources, Attachment C and D, Staff CCA/Rate Base/Revenue Recognition Positions

Builder/Owner/GW Reference	Estimated number of connections	Per unit fee	Total estimated fees collectable	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
RAJAC Dev Real Estate Partners, LLC	590	3,200 \$	1,848,000	-	-	-	-	-	-	-	-	-	-
Subtotal	590		1,848,000										
Stanfield Holdings, LLC	1,036	3,200 \$	3,418,800	-	-	-	-	-	-	-	-	-	-
Subtotal	1,036		3,418,800										
Langley Farms	280	3,200 \$	924,000	-	-	-	-	-	-	-	-	-	-
Subtotal	280		924,000										

Global Water Resources,  
Inc  
Through 12/31/2012

Attachment D

Funds collected as of December 31.

Builder/Owner/City Reference	Estimated number of connections	Per unit fee	Total estimated fees collectable	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
Phal 347	792	3,300 \$	2,613,600	-	27,050	-	-	-	-	-	150,000	283,755	480,805
Subtotal	792		2,613,600	-	27,050	-	-	-	-	-	150,000	283,755	480,805
Total SCFV Southwest Expansion	27,188		89,714,821 \$	-	280,817 \$	4,783,459 \$	-	612,500 \$	-	98,225 \$	150,000 \$	283,755 \$	6,187,947 \$

Global Water Resources,  
Inc  
Through 12/31/2012

Attachment D

Global Water Resources, Inc. - Staff Compensation - Recurring - Funds collected as of December 31, 2012

Builder/Owner/Service Reference	Estimated number of connections	Per unit fee	Total estimated fee collectable	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total	
SCVP 387 District Lamar Communities Desert Crossing/Altira	802	1,900 \$	200,000			200,000							200,000	105
Subtotal	1,432		2,120,000			2,120,000								
Red Valley	675	1,900 \$	1,082,500			200,000							200,000	
Subtotal	675		1,082,500			200,000							200,000	
Pulte Homes	122	1,900 \$	231,800										231,800	122
Pulte Home	91	800 \$	54,800		231,800								54,800	91
Pulte Home	80	2,500 \$	200,000		200,000								200,000	80
Diets-Crane	268	1,900 \$	305,200										305,200	268
Diets-Crane	250	1,900 \$	476,000										476,000	250
Pulte Homes	249	1,900 \$	473,100										473,100	249
Subtotal	1,900		1,829,700										1,829,700	1,900
KB Homes	317	1,900 \$	602,300										602,300	317
Subtotal	317		602,300										602,300	317
McDavid Office Park	182	1,800 \$	364,800						602,300				473,100	182
Subtotal	182		364,800						602,300				1,429,700	182
Vistoso	1,807	2,800 \$	4,218,800										4,218,800	1,807
Subtotal	1,807		4,218,800										4,218,800	1,807
Subtotal	1,488		4,166,400										4,166,400	1,488
Meritopa Meadows, LLC	1,474	2,800 \$	4,127,200										4,127,200	1,474
Subtotal	1,474		4,127,200										4,127,200	1,474
Meritopa Meadows, LLC	108	1,900 \$	205,200										205,200	108
Meritopa Meadows, LLC	124	1,900 \$	235,600		205,200								235,600	124
Meritopa Meadows, LLC	114	1,800 \$	216,600		235,600								216,600	114
Subtotal	346		657,400		440,800								657,400	346
Land Structures Meritopa, LLC					657,400								657,400	
Subtotal	0		400,000		657,400								657,400	0
LLC	1,280	1,900 \$	2,451,000										2,451,000	1,280
Subtotal	1,280		2,451,000										2,451,000	1,280
Ensign Homes	537	1,900 \$	1,020,300										1,020,300	537
K. Horvath Great Western Homes	283	1,900 \$	536,800										536,800	283
Montson Homes	133	1,900 \$	252,700										252,700	133
Onega/Murphy/Land	226	1,800 \$	418,000										418,000	226
Subtotal	1,172		2,226,800										2,226,800	1,172
Total SCVP 387 DISTRICT	31,665		26,068,500		3,782,300	3,874,400							23,311,100	31,665
								602,300					2,331,100	
													8,286,008	

Global Water Resources,  
Inc  
Through 12/31/2012

Attachment D  
Funds collected as of December 31.

Builder/Owner/GW Reference	Estimated number of connections	Per unit fee	Total estimated fees collectible	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
Dunn	280	3,600	1,008,000	-	-	-	-	-	-	-	-	-	-
Subtotal	280		1,008,000										
Stanfield Estates / Turner Dunn	334	3,600	1,202,400	-	-	-	-	-	-	-	-	-	-
Subtotal	334		1,202,400										
Dart Property / Terry Burton	2,170	3,600	7,812,000	-	-	-	-	-	-	-	-	-	-
Subtotal	2,170		7,812,000										
Sanja Cruz Land Co / Sanja Cruz Ranch / Anderson Val Vista 6	4,187	3,600	14,985,200	-	-	103,925	-	-	-	-	-	-	103,925
Subtotal	4,187		14,985,200			103,925							103,925
SKK, LLC / Scott Cole & Bryan Harman	2,359	3,600	8,492,400	-	-	48,760	-	-	-	-	-	-	48,760
Subtotal	2,359		8,492,400			48,760							48,760
JP Holdings LP / Solana Ranch North	2,335	3,600	8,406,000	-	-	58,375	-	-	-	-	-	-	58,375
Subtotal	2,335		8,406,000			58,375							58,375
Anderson & Barnes 690 LLP / Solana Ranch South	2,030	3,600	7,308,000	-	-	50,760	-	-	-	-	-	-	50,760
Subtotal	2,030		7,308,000			50,760							50,760
120 Townsend (Yount)	700	3,640	2,568,000	-	-	56,760	-	-	-	-	-	-	56,760
Subtotal	700		2,568,000			56,760							56,760
NS120 (Yount)	420	3,640	1,512,800	-	-	-	-	-	-	-	-	-	-
Subtotal	420		1,512,800										
Montgomery 156 (Yount)	548	3,640	2,096,640	-	-	-	-	-	-	-	-	-	-
Subtotal	548		2,096,640										
CG 215 (Yount)	783	3,640	2,891,520	-	-	-	-	-	-	-	-	-	-
Subtotal	783		2,891,520										
Casa Grande Montgomery 240 (Yount)	840	3,640	3,225,600	-	-	-	-	-	-	-	-	-	-
Subtotal	840		3,225,600										
RRY Casa Grande 320 (Yount)	1,120	3,640	4,300,800	-	-	-	-	-	-	-	-	-	-
Subtotal	1,120		4,300,800										
SVVM 80 (Yount)	288	3,640	1,075,200	-	-	-	-	-	-	-	-	-	-
Subtotal	288		1,075,200										
VV Morby (Yount)	210	3,640	806,400	-	-	-	-	-	-	-	-	-	-
Subtotal	210		806,400										
RRY Real Estate (Yount)	140	3,640	537,600	-	-	-	-	-	-	-	-	-	-
Subtotal	140		537,600										
Robb R Yount LTD (Yount)	140	3,640	537,600	-	-	-	-	-	-	-	-	-	-
Subtotal	140		537,600										



Global Water Resources,  
Inc  
Through 12/31/2012

Attachment D

Funds collected as of December 31,

Richard Armstrong, Chairman, C and D - Staff (CFAA) on Base (under recommendations)

Bank/Owner/OW Reference	Estimated number of connections	Per unit fee	Total estimated fees collectable	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
Richard and Dana (Youth)	140	3,840	\$ 537,600	-	-	-	-	-	-	-	-	-	-
Subtotal	140		\$ 537,600										
Bruce and Karen (Youth)	140	3,840	\$ 537,600	-	-	-	-	-	-	-	-	-	-
Subtotal	140		\$ 537,600										
Sacaton BL (Youth)	880	3,840	\$ 3,383,200	-	-	-	-	-	-	-	-	-	-
Subtotal	880		\$ 3,383,200										
Trading Post Road LLC (Youth)	210	3,600	\$ 756,000	-	-	-	-	-	-	-	-	-	-
Subtotal	210		\$ 756,000										
Chantwell Cess Grande (Youth)	140	3,840	\$ 537,600	-	-	-	-	-	-	-	-	-	-
Subtotal	140		\$ 537,600										
Polch - Non Pulte	4,256	3,840	\$ 16,343,040	-	-	-	-	-	-	-	-	-	-
Subtotal	4,256		\$ 16,343,040										
Polch - Pulte	5,194	3,840	\$ 19,944,960	-	-	-	-	-	-	-	-	-	-
Subtotal	5,194		\$ 19,944,960										
CROW Holdings, LLC (Mark Williams)	105	3,600	\$ 378,000	-	-	-	-	-	-	-	-	-	-
Subtotal	105		\$ 378,000										
Val Vista & Montgomery (Mark Williams)	140	3,600	\$ 504,000	-	-	-	-	-	-	-	-	-	-
Subtotal	140		\$ 504,000										
Williams Trusts (Mark Williams)	560	3,600	\$ 2,016,000	-	-	-	-	-	-	-	-	-	-
Subtotal	560		\$ 2,016,000										
Blevins	560	3,600	\$ 2,016,000	-	-	-	-	-	-	-	-	-	-
Subtotal	560		\$ 2,016,000										
Kronwald Family Trust	280	3,600	\$ 1,008,000	-	-	-	-	-	-	-	-	-	-
Subtotal	280		\$ 1,008,000										
Henry McAllen and Alexander McAllen	68	3,600	\$ 244,800	-	-	-	-	-	-	-	-	-	-
Subtotal	68		\$ 244,800										
Teal BO (Reimbod)	287	3,600	\$ 1,033,200	-	-	-	-	-	-	-	-	-	-
Subtotal	287		\$ 1,033,200										
Ken Lourman	280	3,600	\$ 1,008,000	-	-	-	-	-	-	-	-	-	-
Subtotal	280		\$ 1,008,000										
Tim Nyberg / Hampden and Chambers	2,625	3,600	\$ 9,450,000	-	-	-	-	-	-	-	-	-	-
Subtotal	2,625		\$ 9,450,000										

Global Water Resources,  
Inc  
Through 12/31/2012

		Attachment D									
		Global / Amstrong Assignments C and D - Staff CSEA rate base addition recommendations									
		Funds collected as of December 31,									
		2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
Bidder/Owner/GW Reference	Estimated number of connections	Per unit fee	Total estimated fees collected								
ROB-LIN Marketing (Vistaco)	4,288	3,600	15,472,800								
Subtotal	4,288		15,472,800								
Vistaco Partners / Jorda Hacienda	10,920	3,000	32,760,000								
Subtotal	10,920		32,760,000								
ABCOW, LLC (Vistaco Stanfield 642)	6,797	3,600	24,469,200								
Subtotal	6,797		24,469,200								
Vanderbill Farms, LLC (Thunder/Vistaco)	6,720	3,600	24,192,000								
Subtotal	6,720		24,192,000								
Langley Stanfield Estates (Hay Hollow)	1,544	3,600	5,558,400								
Subtotal	1,544		5,558,400								
Langley Properties Steiner (60)	560	3,600	2,016,000								
Subtotal	560		2,016,000								
Langley Properties (CCB Stanfield Estates)	336	3,600	1,209,600								
Subtotal	336		1,209,600								
Matt Montgomery/SPD, INC	4,200	3,600	15,120,000								
Subtotal	4,200		15,120,000								
El Dorado: Parker Estates	2,240	3,600	8,064,000								
Subtotal	2,240		8,064,000								
El Dorado: Honda 640	2,240	3,600	8,064,000								
Subtotal	2,240		8,064,000								
El Dorado: Rio Lobo, LLC	2,240	3,600	8,064,000								
Subtotal	2,240		8,064,000								
Tetbus Investments	140	3,600	504,000								
Subtotal	140		504,000								
Douglas Payne	280	3,600	1,008,000								
Subtotal	280		1,008,000								
TOTAL SC/PPV Soutwest Expansion	77,514		282,216,160								282,216,160
											282,216,160

Global Water Resources,  
Inc  
Through 12/31/2012

Builder/Owner/OW Reference Expenses	Estimated number of connections	Per unit fee	Attachment D							Grand Total	
			2004	2005	2006	2007	2008	2009	2010		2011
Regional - Armstrong, Abbe, C and D - Staff (CFA) in his base / utilities recommendations Funds collected as of December 31,											
			Total estimated fees collectable								
Arl D Long / Whiteo	7,301	4,000 \$	29,204,000								
Subtotal	7,301		29,204,000								
JEKE Group (NW parcel)	590	4,000 \$	2,360,000								
Subtotal	590		2,360,000								
Southern Dunes	234	4,000 \$	936,000								
Subtotal	234		936,000								
Hoganes Dairy	2,667	3,000 \$	8,001,000								
Subtotal	2,667		8,001,000								
TOTR (JCON)	27	4,000 \$	108,000								
Subtotal	27		108,000								
Subtotal	26	4,000 \$	104,000								
Subtotal	26		104,000								
Radfield	117	3,800 \$	444,600								
Subtotal	117		444,600								
Sunset Mountain Dev. Group	1,280	4,000 \$	5,120,000								
Subtotal	1,280		5,120,000								
Mersey Homes	832	3,200 \$	2,662,400								
Subtotal	832		2,662,400								
Kelly Anderson	2,240	3,100 \$	6,944,000								
Subtotal	2,240		6,944,000								
Eagle Shadow	1,323	3,100 \$	4,101,300								
Subtotal	1,323		4,101,300								
Heriman Ranch	2,240	3,100 \$	6,944,000								
Subtotal	2,240		6,944,000								
Legacy Charter School at San Teresa	72	3,100 \$	223,200								
Subtotal	72		223,200								
								48,171			
								48,171			
										48,171	
											3,200
											3,200

Global Water Resources,  
 Inc  
 Through 12/31/2012

Attachment D  
 Funds collected as of December 31,

McGlobal - Armstrong Associates C and D - Staff ACA rate class reduction recommendations

Builder/Owner/OW Reference	Estimated number of connections	Per unit fee	Total estimated fees collectable	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
San Traversa	1,190	3,100 \$	3,689,000										273,632
CAC at San Traversa	821	3,100 \$	2,545,100						273,632				2,818,732
Subtotal	2,011		6,234,100								2,283,145	418,368	2,853,164
HBE Farms	1,120	3,100 \$	3,472,000										86
Subtotal	1,120		3,472,000										865
Chis Walk	70	4,000 \$	280,000										3,100
Subtotal	70		280,000										3,100
Brian Stevenson	86	3,600 \$	315,000										

Global Water Resources,  
Inc  
Through 12/31/2012

Buildings/Owner/Ref Reference	Estimated number of connections	Per unit fee	Total estimated fees collectible	Attachment D							Grand Total			
				2004	2005	2006	2007	2008	2009	2010		2011	2012	
<b>ASAC Land Ventures (Goddies)</b>	88		\$ 318,000											
Subtotal	280	3,600	\$ 1,008,000											
Subtotal	280	3,600	\$ 1,008,000											
Michael Toronto	140	3,600	\$ 504,000											
Subtotal	140	3,600	\$ 504,000											
Quincey Holdings	280	3,600	\$ 1,008,000											
Subtotal	280	3,600	\$ 1,008,000											
Invest Aviles	32	3,600	\$ 115,200											
Subtotal	32	3,600	\$ 115,200											
Dana Byron	25	3,600	\$ 88,200											
Subtotal	25	3,600	\$ 88,200											
Byron/Tsa	18	3,600	\$ 63,000											
Subtotal	18	3,600	\$ 63,000											
Dana Byron	30	3,600	\$ 109,242											
Subtotal	30	3,600	\$ 109,242											
Byron/Mccullum	32	3,600	\$ 115,200											
Subtotal	32	3,600	\$ 115,200											
Wilton Cactus Springs	1,050	3,600	\$ 3,780,000											
Subtotal	1,050	3,600	\$ 3,780,000											
Brauchere LP (Ray Christian)	140	3,600	\$ 504,000											
Subtotal	140	3,600	\$ 504,000											
Cana Montmore	18	3,600	\$ 63,000											
Subtotal	18	3,600	\$ 63,000											
Redfield Financial Partners V	140	3,600	\$ 504,000											
Subtotal	140	3,600	\$ 504,000											
Redfield Financial	970	3,600	\$ 3,492,720											
Subtotal	970	3,600	\$ 3,492,720											
Cando Perich	140	4,000	\$ 560,000											
Subtotal	140	4,000	\$ 560,000											
Ray Morrow	288	3,600	\$ 977,600											
Subtotal	288	3,600	\$ 977,600											
K Investment Enterprises	58	3,600	\$ 201,800											
Subtotal	58	3,600	\$ 201,800											
Redfield Frog	420	3,600	\$ 1,512,000											
Subtotal	420	3,600	\$ 1,512,000											
Redfield Financial	140	3,600	\$ 504,000											
Subtotal	140	3,600	\$ 504,000											
Redfield Financial	280	3,600	\$ 1,008,000											
Subtotal	420	3,600	\$ 1,512,000											
Subtotal	700	3,600	\$ 2,520,000											

7 3,600

6 3,600

Global Water Resources,  
Inc  
Through 12/31/2012

Attachment D

Funds collected as of December 31,

The Global Water Resources, Inc. and D. Scott CPA, Inc. Base Fee Collection Recommendations

Builder/Owner/GW Reference	Estimated number of connections	Per unit fee	Total estimated fees collectable	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
DYE Equities Subtotal	2,240	3,600 \$	8,064,000	-	-	-	-	-	-	-	-	-	-
Koch Noddy Subtotal	18	3,600 \$	63,000	-	-	-	-	-	-	-	-	-	-
NE 28 Land Subtotal	648	3,600 \$	2,331,000	-	-	-	-	-	-	-	-	-	-
<b>TOTAL SCPT/NRW/28 SW Expansion</b>	<b>30,068</b>	<b>\$</b>	<b>107,220,892 \$</b>	<b>- \$</b>	<b>- \$</b>	<b>22,025 \$</b>	<b>23,300 \$</b>	<b>26,250 \$</b>	<b>321,893 \$</b>	<b>- \$</b>	<b>2,293,145 \$</b>	<b>419,368 \$</b>	<b>3,075,610 \$</b>
													<b>3,075,610</b>

Global Water Resources,  
Inc  
Through 12/31/2012

		Attachment D											
		Funds collected as of December 31,											
Builder/Owner/ISW Reference	Estimated number of connections	Per unit fee	Total estimated fees collectible	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
<b>SCP/V Future Southwest</b>													
Legends Ranch (Southwest I) Subtotal	25,000	31903500	\$ 69,650,000	-	-	-	882,411	1,000,000	-	-	-	-	1,882,411
	25,000		\$ 69,650,000	-	-	-	882,411	1,000,000	-	-	-	-	1,882,411
Total SCP/V Future Southwest (F&CP Transfer to SCPV Areas)													
	25,000		\$ 69,650,000	-	-	-	882,411	1,000,000	-	-	-	-	1,882,411
<b>SCP/V Future Southwest</b>													
													1,882,411
<b>Melway</b>													
Melway Subtotal	18,154	4,000	\$ 72,615,340	-	-	-	-	-	-	-	-	-	-
	18,154		\$ 72,615,340	-	-	-	-	-	-	-	-	-	-
Total SCP/V Future Southwest (F&CP Transfer to SCPV Areas)													
	18,154		\$ 72,615,340	-	-	-	-	-	-	-	-	-	-
<b>Picacho Cove Existing and</b>													
<b>La Osa</b>													
La Osa Citrus Orchards Subtotal	69,600	2,800	\$ 166,600,000	-	-	500,500	-	-	-	-	-	-	-
	69,600		\$ 166,600,000	-	-	500,500	-	-	-	-	-	-	-
	8,000	5,015	\$ 40,120,000	-	-	-	-	-	-	-	-	-	-
	67,600		\$ 206,720,000	-	-	500,500	-	-	-	-	-	-	500,500
Total Picacho Cove Existing													
	67,600		\$ 206,720,000	-	-	500,500	-	-	-	-	-	-	500,500

Global Water Resources,  
Inc  
Through 12/31/2012

Attachment D  
Funds collected as of December 31,  
The Global Water Resources Attachments C and D Staff (CFA) are based on the following recommendations:

Builder/Owner/GW Reference	Estimated number of connections	Per unit fee	Total estimated fees collectible	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
<b>HUC/Bahama/WUGT</b>													
Hessayampa Ranch	5,700	2,650	15,105,000	-	275,000	-	-	100,000	50,000	-	-	-	-
Subtotal	5,700		15,105,000	-	275,000	-	-	100,000	50,000	-	-	-	425,000
Shiver Water/Springs Ranch	8,822	5,500	47,421,000	-	-	-	-	-	-	-	-	-	-
(Vegas)	8,822		47,421,000	-	-	-	-	-	-	-	-	-	-
Subtotal	8,822		47,421,000	-	-	-	-	-	-	-	-	-	-
Coppeland Development	3,750	5,500	20,625,000	-	-	-	-	-	-	-	-	-	-
Subtotal	3,750		20,625,000	-	-	-	-	-	-	-	-	-	-
110-330th	1,100	5,000	6,050,000	-	-	-	-	375,000	-	-	-	-	-
Subtotal	1,100		6,050,000	-	-	-	-	375,000	-	-	-	-	375,000
Bainmont	87,600	6,000	525,360,000	75,000	-	-	-	425,000	-	-	-	-	-
Subtotal	87,600		525,360,000	75,000	-	-	-	425,000	-	-	-	-	500,000
<b>Total HUC/Bahama/WUGT</b>	<b>105,872</b>		<b>525,701,000</b>	<b>75,000</b>	<b>275,000</b>	<b>8,351,100</b>	<b>-</b>	<b>800,000</b>	<b>50,000</b>	<b>-</b>	<b>-</b>	<b>1,218,750</b>	<b>10,869,850</b>

Builder/Owner/GW Reference	Estimated number of connections	Per unit fee	Total estimated fees collectible	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
<b>GRAND TOTAL ALL AGREEMENTS</b>	<b>394,314</b>	<b>3,742</b>	<b>1,475,638,486</b>	<b>4,998,568</b>	<b>20,543,308</b>	<b>25,938,577</b>	<b>4,658,478</b>	<b>3,948,100</b>	<b>3,895,282</b>	<b>273,740</b>	<b>2,512,866</b>	<b>2,420,882</b>	<b>68,987,872</b>
Total CCR Agreements													
Total Master Utility Agreement													
Total CCFAs, Including Those Not Recorded with the County													
Total SC/PPV Agreements Including CP													
Total Picacho Cove Agreements													
<b>Total HUC/Bahama/WUGT</b>													<b>10,869,850</b>



## TARIFF SCHEDULE

UTILITY: \_\_\_\_\_  
DOCKET NO. \_\_\_\_\_DECISION NO. \_\_\_\_\_  
EFFECTIVE DATE: \_\_\_\_\_

## OFF-SITE HOOK-UP FEE (WATER)

I. Purpose and Applicability

The purpose of the off-site hook-up fees payable to \_\_\_\_\_ ("the Company") pursuant to this tariff is to equitably apportion the costs of constructing additional off-site facilities necessary to provide water production, delivery, storage and pressure among all new service connections. These charges are applicable to all new service connections established after the effective date of this tariff undertaken via Main Extension Agreements or requests for service not requiring a Main Extension Agreement. The charges are one-time charges and are payable as a condition to Company's establishment of service, as more particularly provided below.

II. Definitions

Unless the context otherwise requires, the definitions set forth in R-14-2-401 of the Arizona Corporation Commission's ("Commission") rules and regulations governing water utilities shall apply in interpreting this tariff schedule.

"Applicant" means any party entering into an agreement with Company for the installation of water facilities to serve new service connections, and may include Developers and/or Builders of new residential subdivisions and/or commercial and industrial properties.

"Company" means \_\_\_\_\_.

"Main Extension Agreement" means any agreement whereby an Applicant agrees to advance the costs of the installation of water facilities necessary to the Company to serve new service connections within a development, or installs such water facilities necessary to serve new service connections and transfer ownership of such water facilities to the Company, which agreement shall require the approval of the Commission pursuant to A.A.C. R-14-2-406, and shall have the same meaning as "Water Facilities Agreement" or "Line Extension Agreement."

"Off-site Facilities" means wells, storage tanks and related appurtenances necessary for proper operation, including engineering and design costs. Offsite facilities may also include booster pumps, pressure tanks, transmission mains and related appurtenances necessary for proper operation if these facilities are not for the exclusive use of the applicant and will benefit the entire water system.

"Service Connection" means and includes all service connections for single-family residential, commercial, industrial or other uses, regardless of meter size.

### III. Off-Site Water Hook-up Fee

For each new service connection, the Company shall collect an off-site hook-up fee derived from the following table:

OFF-SITE WATER HOOK-UP FEE TABLE		
Meter Size	Size Factor	Total Fee
5/8" x 3/4"	1	\$
3/4"	1.5	\$
1"	2.5	\$
1-1/2"	5	\$
2"	8	\$
3"	16	\$
4"	25	\$
6" or larger	50	\$

### IV. Terms and Conditions

(A) Assessment of One Time Off-Site Hook-up Fee: The off-site hook-up fee may be assessed only once per parcel, service connection, or lot within a subdivision (similar to meter and service line installation charge).

(B) Use of Off-Site Hook-up Fee: Off-site hook-up fees may only be used to pay for capital items of off-site facilities or for repayment of loans obtained to fund the cost of installation of off-site facilities. Off-site hook-up fees shall not be used to cover repairs, maintenance, or operational costs.

(C) Time of Payment:

- 1) For those requiring a Main Extension Agreement: In the event that the Applicant is required to enter into a Main Extension Agreement, whereby the Applicant agrees to advance the costs of installing mains, valves, fittings, hydrants and other on-site improvements or construct such improvements in order to extend service in accordance with R-14-2-406(B), payment of the hook-up fees required hereunder shall be made by the Applicant no later than 15 calendar days after receipt of notification from the Company that the Utilities Division of the Arizona Corporation Commission has approved the Main Extension Agreement in accordance with R-14-2-406(M).
- 2) For those connecting to an existing main: In the event that the Applicant is not required to enter into a Main Extension Agreement, the hook-up fee charges hereunder shall be due and payable at the time the meter and service line installation fee is due and payable.

(D) Off-Site Facilities Construction By Developer: Company and Applicant may agree to construction of off-site facilities necessary to serve a particular development by Applicant, which facilities are then conveyed to Company. In that event, Company shall credit the total cost of such off-site facilities as an offset to off-site hook-up fees due under this Tariff. If the total cost of the off-site facilities constructed by Applicant and conveyed to Company is less than the applicable off-site hook-up fees under this Tariff, Applicant shall pay the remaining amount of off-site hook-up fees owed hereunder. If the total cost of the off-site facilities contributed by Applicant and conveyed to Company is more than the applicable off-site hook-up fees under this Tariff, Applicant shall be refunded the difference upon acceptance of the off-site facilities by the Company.

(E) Failure to Pay Charges; Delinquent Payments: The Company will not be obligated to make an advance commitment to provide or to actually provide water service to any Applicant in the event that the Applicant has not paid in full all charges hereunder. Under no circumstances will the Company set a meter or otherwise allow service to be established if the entire amount of any payment due hereunder has not been paid.

(F) Large Subdivision and/or Development Projects: In the event that the Applicant is engaged in the development of a residential subdivision and/or development containing more than 150 lots, the Company may, in its discretion, agree to payment of off-site hook-up fees in installments. Such installments may be based on the residential subdivision and/or development's phasing, and should attempt to equitably apportion the payment of charges hereunder based on the Applicant's construction schedule and water service requirements. In the alternative, the Applicant shall post an irrevocable letter of credit in favor of the Company in a commercially reasonable form, which may be drawn by the Company consistent with the actual or planned construction and hook up schedule for the subdivision and/or development.

(G) Off-Site Hook-Up Fees Non-refundable: The amounts collected by the Company as hook-up fees pursuant to the off-site hook-up fee tariff shall be non-refundable contributions in aid of construction.

(H) Use of Off-Site Hook-Up Fees Received: All funds collected by the Company as off-site hook-up fees shall be deposited into a separate interest bearing bank account and used solely for the purposes of paying for the costs of installation of off-site facilities, including repayment of loans obtained for the installation of off-site facilities that will benefit the entire water system.

(I) Off-Site Hook-up Fee in Addition to On-site Facilities: The off-site hook-up fee shall be in addition to any costs associated with the construction of on-site facilities under a Main Extension Agreement.

(J) Disposition of Excess Funds: After all necessary and desirable off-site facilities are constructed utilizing funds collected pursuant to the off-site hook-up fees, or if the off-site hook-up fee has been terminated by order of the Arizona Corporation Commission, any funds remaining in the bank account shall be refunded. The manner of the refund shall be determined by the Commission at the time a refund becomes necessary.

(K) Fire Flow Requirements: In the event the Applicant for service has fire flow requirements that require additional facilities beyond those facilities whose costs were included in the off-site hook-up fee, and which are contemplated to be constructed using the proceeds of the off-site hook-up Fee, the Company may require the Applicant to install such additional facilities as are required to meet those additional fire flow requirements, as a non-refundable contribution, in addition to the off-site hook-up fee.

(L) Status Reporting Requirements to the Commission: The Company shall submit a calendar year Off-Site Hook-Up Fee status report each January 31<sup>st</sup> to Docket Control for the prior twelve (12) month period, beginning January 31, 20\_\_, until the hook-up fee tariff is no longer in effect. This status report shall contain a list of all customers that have paid the hook-up fee tariff, the amount each has paid, the physical location/address of the property in respect of which such fee was paid, the amount of money spent from the account, the amount of interest earned on the funds within the tariff account, and a list of all facilities that have been installed with the tariff funds during the 12 month period.

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Attachment F

Staff Data Requests and Company Responses  
Referenced in Direct Testimony of James R.  
Armstrong

Valencia Water Company – Town Division (W-01212A-12-0309)  
Global Water – Palo Verde Utilities Company (SW-20445A-12-0310)  
Water Utility of Northern Scottsdale (W-03720A-12-0311)  
Water Utility of Greater Tonopah (W-02450A-12-0312)  
Valencia Water Company – Greater Buckeye Division (W-02451A-12-0313)  
Global Water – Santa Cruz Water Company (W-20446A-12-0314)  
Willow Valley Water Company (W-01732A-12-0315)

**RESPONSES TO STAFF'S EIGHTH SET OF DATA REQUESTS**  
Dated February 28, 2013

---

**Subject: All information responses should ONLY be provided in searchable PDF, DOC or EXCEL files via email or electronic media.**

- STF 8.6 Referring to page 11 of the Ullmann Report. Provide a copy of ICFAs with parties simply noted as “various” dated 12-20-2007, 2008-0061205.
- a. Why are the per dwelling unit Landowner Payments so much higher for this set of ICFAs (\$5,000) than most of the ICFA Landowner Payments?
  - b. Provide a copy of all information provided to Ullmann to support the information shown for this line item. (If this is voluminous, Staff is willing to review this information at the Global office.)

**RESPONSE:**

- a. ICFAs are not cost-of-service, invoice-type, agreements wherein every element is priced. They are not contracts that can be broken out into discrete elements because the ICFA parties recognized that the issues addressed in ICFAs are and remain macro-issues.

ICFAs exist in the Phoenix and Pinal AMAs. In the Phoenix portion, the ICFAs exist in the Lower Hassayampa Sub-basin, and in Pinal, the far-western portion of the county.

- Each of those areas has the following characteristics:
  - significant water challenges;
    - in Pinal County, the area had platted several times more homes than the entire-AMA's renewable water budget could possibly support; and
    - in the Phoenix AMA area, the ADWR had issued analyses of Assured Water Supply that allocated three times more water than existed in the Hassayampa Sub-basin.
  - significant amounts of potentially developable land, if the water resource could be bolstered;

Valencia Water Company – Town Division (W-01212A-12-0309)  
Global Water – Palo Verde Utilities Company (SW-20445A-12-0310)  
Water Utility of Northern Scottsdale (W-03720A-12-0311)  
Water Utility of Greater Tonopah (W-02450A-12-0312)  
Valencia Water Company – Greater Buckeye Division (W-02451A-12-0313)  
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- the only way to bolster the water resource was through regional scale water reclamation and reuse – which had to be emplaced in the face of growth, and which therefore would expose Global to carrying cost issues when and if the growth failed to develop as expected.
  - The Southwest Plant issue in the City of Maricopa area bears out that carrying cost issue - \$32 million of plant that the ACC ordered built still sits idle, unused, and out of rate base, several years after construction.
- utilities with significant operational issues that were limiting, and would continue to limit, the potential development planned and platted in the area;
  - the utilities had service areas, economic expectations, and thus were able to demand and receive market prices in excess of book value – creating acquisition premium issues in the Sonoran/387 acquisition and the West Maricopa Combine situation.

In that context, neither party in the ICFA wanted to do a piece-by-piece valuation of every element (growth's demands, the water scarcity, the acquisition premiums, etc.) The developers and Global understood the nexus between growth and water, and the need for regional water reuse performed by a strong utility. The developers and Global understood as well that the ICFA's themselves should not negatively affect the highly-competitive home development sector by imposing different pricing and/or by providing different timing for developers in the same region.

The end result was we achieved consensus pricing for each development area – the affected developers in each area of each region debated the macro issues with Global and amongst each other and we wound up with consensus prices that ensured Global would have enough funding to deal with the acquisitions and the carrying costs of the regional infrastructure that would serve the developers' interests in bringing growth to each area.

Valencia Water Company – Town Division (W-01212A-12-0309)  
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Separating the pieces of an ICFA and expecting each to “work” independently is akin to taking apart a plane and expecting to see the fuselage, landing gear, and wings, each fly through the air. The ICFA, like an airplane, makes sense as a whole entity that does something rather difficult in and of itself.

ICFAs balance competing developer interests, the pressures of water-scarce areas, the time value of money, and the long-run interests of the customers and the environment – and it consolidates troubled water companies without imposing acquisition costs on the customers. The results are borne out in our results (as shown in the testimony of Mr. Fleming on improved service quality and on operational costs; and Mr. Walker on solving troubled situations.)

Keeping in mind the above considerations, the Far West Valley (where this set of ICFAs covers) represented a different situation than that found in other areas served by Global. The areas in question were being served by utilities (West Maricopa Combine) with large service territories which could not support development and Global planned for advanced recycling solutions for the area.

- b. Ullman was provided with a copy of the ICFA dated 12-20-2007, recording number 2008-0061205. For your reference, a copy of each ICFA through 2009 was provided to Staff on May 12, 2009 in Dockets 09-0077 et al, as Bates Nos. GW(09-RATE)000123 to GW(09-RATE)007740. A copy of the CD with these documents is provided in response to STF 8.66.

**RESPONDENT:**

**STF DR 8.6.a:** Paul Walker, Insight Consulting

**STF DR 8.6.b:** Ron Fleming, President, Regulated Utilities Division



Valencia Water Company – Town Division (W-01212A-12-0309)  
Global Water – Palo Verde Utilities Company (SW-20445A-12-0310)  
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Dated February 28, 2013

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**STF 8.10** Please refer to Attachment A to this series of data requests (which was taken from the ICFA dated December 30, 2006 entered into between Global and CHI Construction Company), and explain how the Coordinator and Developer ultimately determined that a \$3,600 per equivalent dwelling unit Landowner Payment was reasonable?

**RESPONSE:**

ICFAs were never intended to be a cost of service, or invoice-type, contract. The parties to the contracts were and are sophisticated parties with significant backgrounds in real estate development; utility operations and planning; and capital financing. Each side in the ICFA was aware of the need for water resources in water-scarce regions – the developer(s) wanted to ensure the opportunity for development in a fair, unbiased way; Global wanted to ensure it retained maximum flexibility to emplace regional-scale infrastructure that would provide long-term water supplies at the lowest operational cost.

Global wanted to ensure that it alone was able to plan and coordinate utility services across these regions. The results are shown in the water savings in Maricopa (3 billion gallons saved in 8 years – enough to provide the city with nearly two years of water); and the operational costs in Maricopa versus the formerly-West Maricopa Combine (WMC) utilities (as evidenced in Mr. Fleming's testimony, our ICFA utilities have the lowest operational costs in not just the Global family of companies, but against our Arizona peers).

Global and the developers also recognized that to achieve each side's goals (growth and equality of service for the developers; regional planning and control for Global) there would need to be acquisitions from time to time. The Sonoran/387 entities and WMC were necessary prerequisites toward each ICFA party's goals.

See also the response to STF 8.6.a.

**RESPONDENT:** Paul Walker, Insight Consulting

Valencia Water Company – Town Division (W-01212A-12-0309)  
Global Water – Palo Verde Utilities Company (SW-20445A-12-0310)  
Water Utility of Northern Scottsdale (W-03720A-12-0311)  
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Valencia Water Company – Town Division (W-01212A-12-0309)  
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**RESPONSES TO STAFF'S EIGHTH SET OF DATA REQUESTS**  
**Dated February 28, 2013**

---

**Subject:** All information responses should **ONLY** be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

**STF 8.11** How much of this \$3,600 per equivalent dwelling unit fee is attributable to each of the following Coordinator provided services:

- a. Acquisitions
- b. Carrying costs
- c. Facilitation, arranging, and coordinating various services
- d. Providing “will serve” letters
- e. A provision for income taxes
- f. Other (please also list any other services for which Coordinator is being compensated out of this \$3,600)

**RESPONSE:**

The Company does not break down the pricing within the ICFA.

**RESPONDENT:** Ron Fleming, President Regulated Utilities Division

Valencia Water Company – Town Division (W-01212A-12-0309)  
Global Water – Palo Verde Utilities Company (SW-20445A-12-0310)  
Water Utility of Northern Scottsdale (W-03720A-12-0311)  
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**RESPONSES TO STAFF'S EIGHTH SET OF DATA REQUESTS**  
Dated February 28, 2013

---

**Subject:** All information responses should **ONLY** be provided in searchable PDF, DOC or EXCEL files via email or electronic media.

**STF 8.12** Provide a copy of all documents and workpapers used, or relied upon, by Global and CHI Construction to quantify this \$3,600 Landowner Payment. For example, in quantifying the level of expected carrying costs, Staff would expect to receive a worksheet showing the anticipated infrastructure investments, the timing of those investments, and the annual and cumulative carrying cost attributable to the underlying infrastructure investments.

**RESPONSE:**

Please see the response to STF 8.6.a and 8.10.

**RESPONDENT:** Paul Walker, Insight Consulting



BEFORE THE ARIZONA CORPORATION COMMISSION

BOB STUMP  
Chairman  
GARY PIERCE  
Commissioner  
BRENDA BURNS  
Commissioner  
BOB BURNS  
Commissioner  
SUSAN BITTER SMITH  
Commissioner

IN THE MATTER OF THE APPLICATION OF VALENCIA WATER COMPANY – TOWN DIVISION FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-01212A-12-0309

IN THE MATTER OF THE APPLICATION OF GLOBAL WATER – PALO VERDE UTILITIES COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. SW-20445A-12-0310

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF NORTHERN SCOTTSDALE, INC. FOR APPROVAL OF A RATE INCREASE.

DOCKET NO. W-03720A-12-0311

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH, INC. FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-02450A-12-0312

IN THE MATTER OF THE APPLICATION OF  
VALENCIA WATER COMPANY – GREATER  
BUCKEYE DIVISION FOR THE  
ESTABLISHMENT OF JUST AND  
REASONABLE RATES AND CHARGES FOR  
UTILITY SERVICE DESIGNED TO REALIZE A  
REASONABLE RATE OF RETURN ON THE  
FAIR VALUE OF ITS PROPERTY  
THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-02451A-12-0313

IN THE MATTER OF THE APPLICATION OF  
GLOBAL WATER – SANTA CRUZ WATER  
COMPANY FOR THE ESTABLISHMENT OF  
JUST AND REASONABLE RATES AND  
CHARGES FOR UTILITY SERVICE DESIGNED  
TO REALIZE A REASONABLE RATE OF  
RETURN ON THE FAIR VALUE OF ITS  
PROPERTY THROUGHOUT THE STATE OF  
ARIZONA.

DOCKET NO. W-20446A-12-0314

IN THE MATTER OF THE APPLICATION OF  
WILLOW VALLEY WATER COMPANY FOR  
THE ESTABLISHMENT OF JUST AND  
REASONABLE RATES AND CHARGES FOR  
UTILITY SERVICE DESIGNED TO REALIZE A  
REASONABLE RATE OF RETURN ON THE  
FAIR VALUE OF ITS PROPERTY  
THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-01732A-12-0315

DIRECT

TESTIMONY

OF

JIAN W. LIU

UTILITIES ENGINEER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

JULY 8, 2013

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**ATTACHMENTS**

OFF-SITE HOOK-UP FEE (WATER) .....	A
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**EXHIBITS**

Engineering Report for Valencia Water Company - Town Division .....	JWL-1
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Engineering Report for Willow Valley Water .....	JWL-6
Engineering Report for Palo Verde Utilities Company .....	JWL-7

1     **INTRODUCTION**

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

3     A.     My name is Jian W. Liu. My business address is 1200 West Washington Street, Phoenix,  
4            Arizona 85007.

5

6     **Q.     By whom and in what position are you employed?**

7     A.     I am employed by the Arizona Corporation Commission (“Commission” or “ACC”) as a  
8            Utilities Engineer - Water/Wastewater in the Utilities Division.

9

10    **Q.     How long have you been employed by the Commission?**

11    A.     I have been employed by the Commission since October 2005.

12

13    **Q.     What are your responsibilities as a Utilities Engineer - Water/Wastewater?**

14    A.     My main responsibilities are to inspect, investigate and evaluate water and wastewater  
15            systems. This includes obtaining data, preparing reconstruction cost new and/or original  
16            cost studies, investigative reports, interpreting rules and regulations, and to suggest  
17            corrective action and provide technical recommendations on water and wastewater system  
18            deficiencies. I also provide written and oral testimony in rate cases and other cases before  
19            the Commission.

20

21    **Q.     How many companies have you analyzed for the Utilities Division?**

22    A.     I have analyzed more than 40 companies fulfilling these various responsibilities for  
23            Utilities Division Staff (“Staff”).

24

25    **Q.     Have you previously testified before this Commission?**

26    A.     Yes, I have testified on numerous occasions before this Commission.



1 **Q. What is your educational background?**

2 A. I am a Ph.D. Candidate in Geotechnical Engineering from Arizona State University  
3 (“ASU”). I have a Master of Science Degree in Natural Science from ASU and a Master  
4 of Science Degree in Civil Engineering from Institute of Rock & Soil Mechanics  
5 (“IRSM”), Academy of Sciences, China.

6  
7 **Q. Briefly describe your pertinent work experience.**

8 A. From 1982 to 2000, I was employed by IRSM, SCS Engineers, and URS Corporation as a  
9 Civil and Environmental Engineer. In 2000, I joined the Arizona Department of  
10 Environmental Quality (“ADEQ”). My responsibilities with ADEQ included review and  
11 approval of water distribution systems, sewer distribution systems, and on-site wastewater  
12 treatment facilities. I remained with ADEQ until transferring to the Commission in  
13 October 2005.

14  
15 **Q. Please state your professional membership, registrations, and licenses.**

16 A. I am a licensed professional civil engineer in the State of Arizona.  
17

18 **PURPOSE OF TESTIMONY**

19 **Q. What was your assignment in this rate proceeding?**

20 A. My assignment was to provide Staff’s engineering evaluation of the subject rate  
21 proceeding. I reviewed Global Water’s application and responses to data requests, and I  
22 inspected the water and wastewater systems. This testimony and its attachments present  
23 Staff’s engineering evaluation. The findings of my engineering evaluation are contained  
24 in the Engineering Reports that I have prepared for this proceeding. The reports are  
25 included as Exhibits JWL-1 through JWL-7 in this pre-filed testimony.

26

1 **Q. Did Global Water propose a Distribution System Improvement Charge (“DSIC”) for**  
2 **Willow Valley, Santa Cruz, Valencia Town and Greater Buckeye Divisions, and**  
3 **Greater Tonopah, and a Collection System Improvement Charge (“CSIC”) for Palo**  
4 **Verde in this proceeding?**

5 A. Yes.

6  
7 **Q. Has Staff recommended approval of a DSIC or CSIC in other docket?**

8 A. No, but Staff has recommended approval of a SIB Mechanism.

9  
10 **Q. Did Global Water provide the associated supporting documentation for engineering**  
11 **Staff to review to determine if approval of a SIB would be appropriate in this case?**

12 A. No. Therefore, Staff recommends that a SIB not be approved.

13  
14 **Q. Does Staff recommend that hook-up fee tariffs be approved for all of Global Water’s**  
15 **ACC-regulated water and wastewater operations in this proceeding?**

16 A. Yes. The standard hook-up fee tariffs Staff is recommending are included in my  
17 testimony as Attachments A and B. The actual fees are based on meter size with 5/8”x  
18 3/4” meter being at \$2,000. Larger meters use the meter multiplier to determine their  
19 price.

20

21 **ENGINEERING REPORTS**

22 **Q. Please describe the information contained in your Engineering Reports.**

23 A. The Reports are divided into three general sections: 1) *Executive Summary*; 2)  
24 *Engineering Report Discussion*, and 3) *Engineering Report Exhibits*. The *Discussion*  
25 section for Water System can be further divided into ten subsections: A) Location of  
26 Company; B) Description of the Water System; C) Maricopa County Environmental

1 Services Department ("MCESD") Compliance or ADEQ Compliance; D) ACC  
2 Compliance; E) Arizona Department Of Water Resources ("ADWR") compliance; F)  
3 Water Testing Expenses, G) Water Usage, H) Growth; I) Depreciation Rates; and J) Other  
4 Issues. The *Discussion* section for Wastewater System is divided into eight subsections:  
5 A) Location of Company; B) Description of the Wastewater System; C) Wastewater Flow;  
6 D) Growth; E) ADEQ Compliance; F) ACC Compliance; G) Depreciation Rates; and H)  
7 Other Issues.

8  
9 **RECOMMENDATIONS AND CONCLUSIONS**

10 **Q. What are Staff's conclusions and recommendations regarding the Company's**  
11 **operations?**

12 **A.** Staff's conclusions and recommendations regarding the Company's operations are listed  
13 below.

14  
15 ***Valencia Water Company - Town Division ("Valencia-Town")***

16  
17 **CONCLUSIONS:**

- 18  
19 1. ADEQ or its formally delegated agent, the Maricopa County Environmental Services  
20 Department ("MCESD"), reported that the Valencia-Town drinking water system (Public  
21 Water System ("PWS") 07-078) is currently delivering water that meets water quality  
22 standards required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141  
23 National Primary Drinking Water Regulations) and Arizona Administrative Code, Title  
24 18, Chapter 4.  
25  
26 2. Valencia-Town is located in the Phoenix Active Management Area ("AMA") and is  
27 subject to its AMA reporting and conservation requirements. Staff received an ADWR  
28 compliance status report dated March 13, 2013. ADWR reported that Valencia-Town is  
29 currently in compliance with departmental requirements governing water providers and/or  
30 community water systems.  
31  
32 3. Staff concludes that the Valencia-Town drinking water system has adequate production  
33 capacity and storage capacity to serve the existing customer base and reasonable growth.  
34  
35 4. Valencia-Town has an approved Curtailment Plan Tariff on file with the Commission.

- 1           5. Valencia-Town has a Backflow Prevention Tariff on file with the Commission.
- 2
- 3           6. Valencia-Town has ten approved Best Management Practice tariffs on file with the
- 4           Commission.
- 5
- 6           7. A check with the Utilities Division Compliance Section showed no delinquent compliance
- 7           items for Valencia-Town.
- 8
- 9           8. Valencia-Town submitted five post-test year plant additions for inclusion in rate base.
- 10           Only post-test year plant additions 3) and 4) were in service during my inspection on April
- 11           11, 2013. (See Exhibit JWL-1)
- 12

13           **RECOMMENDATIONS:**

- 14
- 15           1. In the prior rate case, Valencia-Town adopted Staff's typical and customary water
- 16           depreciation rates. These rates are presented in Table B of the report and it is
- 17           recommended that the Valencia-Town continue to use these depreciation rates by
- 18           individual National Association of Regulatory Utility Commissioners ("NARUC")
- 19           category.
- 20
- 21           2. Staff recommends the annual water testing expense of \$14,571 reported by the Valencia-
- 22           Town be used for purposes of this application.
- 23
- 24           3. Valencia-Town has not requested any changes in its service line and meter installation
- 25           charges that were approved in its last rate application. Therefore, Staff recommends
- 26           continued use of the Company's current meter and service line installation charges.
- 27
- 28           4. Staff recommends that within 90 days of a Decision in this matter Valencia-Town file
- 29           with Docket Control, as a compliance item in this docket, a detailed plan demonstrating
- 30           how Valencia-Town will reduce its water loss to less than 10 percent. If the Valencia-
- 31           Town finds that reduction of water loss to less than 10 percent is not cost-effective,
- 32           Valencia-Town should submit, within 90 days of a Decision in this matter, a detailed cost
- 33           analysis and explanation demonstrating why water loss reduction to less than 10 percent is
- 34           not cost-effective.
- 35

36           *Water Utility of Northern Scottsdale ("WUNS")*

37

38           **CONCLUSIONS:**

- 39
- 40           1. ADEQ or its formally delegated agent, MCESD, reported that the WUNS drinking water
- 41           system PWS Number 07-179 is currently delivering water that meets water quality
- 42           standards required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141
- 43           National Primary Drinking Water Regulations) and Arizona Administrative Code, Title
- 44           18, Chapter 4.
- 45

- 1           2. WUNS is located in the Phoenix AMA and is subject to its AMA reporting and  
2           conservation requirements. Staff received an ADWR compliance status report dated  
3           March 13, 2013. ADWR reported that WUNS is currently in compliance with  
4           departmental requirements governing water providers and/or community water systems.  
5
- 6           3. Staff concludes that the WUNS drinking water system has adequate production capacity  
7           and storage capacity to serve the existing customer base and reasonable growth.  
8
- 9           4. WUNS has an approved Curtailment Plan Tariff on file with the Commission.  
10
- 11          5. WUNS has a Backflow Prevention Tariff on file with the Commission.  
12
- 13          6. A check with the Utilities Division Compliance Section showed no delinquent compliance  
14          items for WUNS.  
15

16 **RECOMMENDATIONS:**

- 17
- 18          1. In the prior rate case, WUNS adopted Staff's typical and customary water depreciation  
19          rates. These rates are presented in Table B and it is recommended that the WUNS  
20          continue to use these depreciation rates by individual NARUC.  
21
- 22          2. Staff recommends the annual water testing expense of \$728 reported by the WUNS be  
23          used for purposes of this application.  
24
- 25          3. WUNS has not requested any changes in its service line and meter installation charges that  
26          were approved in its last rate application. Therefore, Staff recommends continued use of  
27          the WUNS's current meter and service line installation charges.  
28
- 29          4. Staff recommends that WUNS monitor its water system and submit the gallons pumped  
30          and sold to determine the non-account water for one full year. WUNS should coordinate  
31          when it reads the well meters each month with customer billing so that an accurate  
32          accounting is determined. The results of this monitoring and reporting shall be docketed  
33          as a compliance item in this case within 13 months of the effective date of the order issued  
34          in this proceeding. If the reported water loss is greater than 10 percent WUNS shall  
35          prepare a report containing a detailed analysis and plan to reduce water loss to 10 percent  
36          or less. If WUNS believes it is not cost effective to reduce the water loss to less than 10  
37          percent, it should submit a detailed cost benefit analysis to support its opinion. In no case  
38          shall the Company allow water loss to be greater than 15 percent. The water loss  
39          reduction report or the detailed analysis, whichever is submitted, shall be docketed as a  
40          compliance item within 13 months of the effective date of the order issued in this  
41          proceeding.  
42
- 43          5. Staff recommends that WUNS adopt the three BMPs approved in Decision No. 73268 for  
44          the other Global Companies with customer counts less than 5000. Staff further  
45          recommends that the WUNS shall notify its customers, in a form acceptable to Staff, of  
46          the BMP tariffs authorized in this proceeding and their effective date by means of either

1 an insert in the next regularly scheduled billing or by a separate mailing and shall provide  
2 copies of the BMP tariffs to any customer, upon request.  
3

4 ***Water Utility of Greater Tonopah, Inc. ("WUGT")***  
5

6 **CONCLUSIONS:**  
7

- 8 1. ADEQ or its formally delegated agent, the MCESD, reported that the WUGT drinking  
9 water systems are currently delivering water that meets water quality standards required  
10 by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141 National Primary  
11 Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4.  
12  
13 2. WUGT is located in the Phoenix AMA and is subject to its AMA reporting and  
14 conservation requirements. Staff received an ADWR compliance status report dated  
15 March 13, 2013. ADWR reported that WUGT is currently in compliance with  
16 departmental requirements governing water providers and/or community water systems.  
17  
18 3. A check with the ACC Utilities Division Compliance Section showed no delinquent  
19 compliance items for WUGT.  
20  
21 4. WUGT has approved Curtailment Plan and Backflow Prevention Tariffs on file with the  
22 Commission.  
23  
24 5. ACC Utilities Division Staff ("Staff") concludes that the WUGT has adequate production  
25 capacity and storage capacity to serve the existing customer base and reasonable growth.  
26  
27 6. WUGT has three approved Best Management Practice ("BMP") tariffs on file with the  
28 Commission.  
29  
30 7. Staff has inspected and verified completion of the three post-test year plant additions.  
31 These three post-test year plant additions were in-service during Staff's inspection on  
32 April 11, 2013. (See Exhibit JW-3)  
33

34 **RECOMMENDATIONS:**  
35

- 36 1. Staff recommends that WUGT file each May a report covering the previous calendar year  
37 (with the first report due in May 2014 to cover the year of 2013) that contains all work  
38 activities undertaken in accordance with Decision No. 71878 regarding the WUGT's plan  
39 for reducing water loss below 10 percent. Staff further recommends that the written report  
40 continue until the water loss for all WUGT water systems is 10 percent or less for one full  
41 calendar year.  
42  
43 2. Staff recommends the annual water testing expense of \$5,108 reported by WUGT be used  
44 for purposes of this application.

- 1           3. In the prior rate case, WUGT adopted Staff's typical and customary water depreciation  
2           rates. These rates are presented in Table B and it is recommended that the WUGT  
3           continue to use these depreciation rates by individual NARUC category.  
4
- 5           4. WUGT has not requested any changes in its service line and meter installation charges  
6           that were approved in its last rate application. Therefore, Staff recommends continued use  
7           of WUGT's current meter and service line installation charges.  
8

9           ***Valencia Water Company - Greater Buckeye Division ("Valencia Greater Buckeye")***

10  
11           **CONCLUSIONS:**

- 12
- 13           1. ADEQ or its formally delegated agent, the MCESD, reported that the Valencia Greater  
14           Buckeye drinking water systems are currently delivering water that meets water quality  
15           standards required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141  
16           National Primary Drinking Water Regulations) and Arizona Administrative Code, Title  
17           18, Chapter 4.  
18
- 19           2. Valencia Greater Buckeye is located in the Phoenix AMA and is subject to its AMA  
20           reporting and conservation requirements. Staff received an ADWR compliance status  
21           report dated March 13, 2013. ADWR reported that Valencia Greater Buckeye is currently  
22           in compliance with departmental requirements governing water providers and/or  
23           community water systems.  
24
- 25           3. A check with the Utilities Division Compliance Section showed no delinquent compliance  
26           items for Valencia Greater Buckeye.  
27
- 28           4. Valencia Greater Buckeye has approved Curtailment Plan and Backflow Prevention  
29           Tariffs on file with the Commission.  
30
- 31           5. Staff concludes that Valencia Greater Buckeye has adequate production capacity and  
32           storage capacity to serve the existing customer base and reasonable growth.  
33
- 34           6. Valencia Greater Buckeye has three approved Best Management Practice ("BMP") tariffs  
35           on file with the Commission.  
36

37           **RECOMMENDATIONS:**

- 38
- 39           1. In the prior rate case, Valencia Greater Buckeye adopted Staff's typical and customary  
40           water depreciation rates. These rates are presented in Table B and it is recommended that  
41           the Valencia Greater Buckeye continue to use these depreciation rates by individual  
42           NARUC category.  
43
- 44           2. Staff recommends the annual water testing expense of \$3,252 reported by the Valencia  
45           Greater Buckeye be used for purposes of this application.

- 1 3. Staff recommends that Valencia Greater Buckeye file each May a report covering the  
2 previous year (Start in May 2014 to cover the year of 2013) that contains all work  
3 activities undertaken in accordance with Decision No. 71878 regarding the plan for  
4 reducing water loss to below 10 percent. The written report should continue until Staff  
5 receives a report that the water loss for all Valencia Greater Buckeye water systems is 10  
6 percent or less for one full year (12 months).  
7
- 8 4. Valencia Greater Buckeye reports that the Bulfer/Primrose water system PWS 07-114 sold  
9 more water than it pumped in test year 2011. The quantity of water sold cannot exceed  
10 the quantity of water pumped for the same period of time which suggests that the water  
11 use data reported is invalid. Staff recommends that the Valencia Greater Buckeye monitor  
12 the Bulfer/Primrose water system and submit the gallons pumped and sold to determine  
13 the non-account water for one full year. The Valencia Greater Buckeye should coordinate  
14 when it reads the well meters each month with customer billing so that an accurate  
15 accounting is determined.  
16
- 17 5. Valencia Greater Buckeye has not requested any changes in its service line and meter  
18 installation charges that were approved in its last rate application. Therefore, Staff  
19 recommends continued use of the Valencia Greater Buckeye's current meter and service  
20 line installation charges.  
21

22 *Santa Cruz Water Company ("Santa Cruz")*

23  
24 **CONCLUSIONS:**

- 25  
26 1. ADEQ regulates the Santa Cruz Water System under ADEQ PWS 11-131. ADEQ  
27 reported that Santa Cruz is currently delivering water that meets water quality standards  
28 required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141 National  
29 Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter  
30 4.  
31
- 32 2. Santa Cruz is located in the Pinal AMA and is subject to its AMA reporting and  
33 conservation requirements. Staff received an ADWR compliance status report dated  
34 March 13, 2013. ADWR reported that Santa Cruz is currently in compliance with  
35 departmental requirements governing water providers and/or community water systems.  
36
- 37 3. Staff concludes that Santa Cruz has adequate production capacity and storage capacity to  
38 serve the existing customer base and reasonable growth.  
39
- 40 4. A check with the Utilities Division Compliance Section showed no delinquent compliance  
41 items for Santa Cruz.  
42
- 43 5. Staff has inspected and verified completion of the post-test year plant additions. These two  
44 post-test year plant additions were in-service during Staff inspection on April 19, 2013.  
45



- 1           6. Santa Cruz has approved Curtailment Plan and Backflow Prevention Tariffs on file with  
2           the Commission. (See Exhibit JW-5)  
3  
4           7. Santa Cruz has ten approved Best Management Practice tariffs on file with the  
5           Commission.  
6

7           **RECOMMENDATIONS:**  
8

- 9           1. In the prior rate case, Santa Cruz adopted Staff's typical and customary water depreciation  
10           rates. These rates are presented in Table B and it is recommended that the Santa Cruz  
11           continue to use these depreciation rates by individual NARUC category.  
12  
13           2. Staff recommends the annual water testing expense of \$32,871 reported by the Santa Cruz  
14           be used for purposes of this application.  
15  
16           3. Santa Cruz has not requested any changes in its service line and meter installation charges  
17           that were approved in its last rate application. Therefore, Staff recommends continued use  
18           of the Santa Cruz's current meter and service line installation charges.  
19  
20           4. Staff recommends that within 90 days of a Decision in this matter Santa Cruz file with  
21           Docket Control, as a compliance item in this docket, a detailed plan demonstrating how  
22           the Santa Cruz will reduce its water loss to less than 10 percent. If Santa Cruz finds that  
23           reduction of water loss to less than 10 percent is not cost-effective, the Company should  
24           submit, within 90 days of a Decision in this matter, a detailed cost analysis and  
25           explanation demonstrating why water loss reduction to less than 10 percent is not cost-  
26           effective.  
27

28           *Willow Valley Water ("Willow Valley")*  
29

30           **CONCLUSIONS:**  
31

- 32           1. ADEQ reported that the Willow Valley drinking water systems are currently delivering  
33           water that meets water quality standards required by 40 C.F.R. 141 (Title 40 Code of  
34           Federal Regulations Part 141 National Primary Drinking Water Regulations) and Arizona  
35           Administrative Code, Title 18, Chapter 4.  
36  
37           2. Willow Valley is not located in any AMA and is not subject to any AMA reporting and  
38           conservation requirements. ADWR reported that Willow Valley is currently in compliance  
39           with departmental requirements governing water providers and/or community water  
40           systems.  
41  
42           3. A check with the Utilities Division Compliance Section showed no delinquent compliance  
43           items for Willow Valley.  
44

- 1 4. Willow Valley has approved Curtailment Plan and Backflow Prevention Tariffs on file  
2 with the Commission.  
3
- 4 5. Willow Valley also has three approved Best Management Practice ("BMP") tariffs on file  
5 with the Commission.  
6
- 7 6. Staff concludes that Willow Valley has adequate production capacity and storage capacity  
8 to serve the existing customer base and reasonable growth.  
9
- 10 7. Staff inspected the plant facilities on April 16, 2013. The post-test year plant addition was  
11 not in-service during Staff's inspection. According to Willow Valley project has been  
12 delayed and will not be completed until late 2013. (See Exhibit JWL-6)  
13

14 **RECOMMENDATIONS:**  
15

- 16 1. In the prior rate case, Willow Valley adopted Staff's typical and customary water  
17 depreciation rates. These rates are presented in Table B and it is recommended that the  
18 Willow Valley continue to use these depreciation rates by individual NARUC category.  
19
- 20 2. Staff recommends the annual water testing expense of \$15,708 be used for purposes of  
21 this application.  
22
- 23 3. Staff recommends that Willow Valley file each May a report covering the previous  
24 calendar year (with the first report due in May 2014 to cover the year of 2013) that  
25 contains all work activities undertaken in accordance with Decision No. 71878 regarding  
26 the Willow Valley's plan for reducing water loss below 10 percent. Staff further  
27 recommends that the written report continue until the water loss for all Willow Valley  
28 water systems is 10 percent or less for one full calendar year.  
29
- 30 4. Willow Valley has not requested any changes in its service line and meter installation  
31 charges that were approved in its last rate application. Therefore, Staff recommends  
32 continued use of the Willow Valley's current meter and service line installation charges.  
33

1 *Palo Verde Utilities Company ("Palo Verde")*  
2

3 **CONCLUSIONS:**  
4

- 5 1. ADEQ regulates Palo Verde under Permit No. 49076. Per an April 16, 2013, Compliance  
6 Status Report issued by ADEQ, during the period of January 1st, 2012 through December  
7 31st, 2012, there were more than 200 times when daily exceedance for turbidity occurred,  
8 other violations were also reported by ADEQ.  
9
- 10 2. A check with the Utilities Division Compliance Section showed no delinquent compliance  
11 items for Palo Verde.  
12
- 13 3. All of the post-test year plant additions except West Lagoon Clean Closure were in-  
14 service during Staff's inspection. (See Exhibit JWL-7)  
15
- 16 4. Staff concludes that Palo Verde has adequate treatment capacity to serve the existing  
17 customer base and reasonable growth.  
18

19 **RECOMMENDATIONS:**  
20

- 21 1. In the prior rate case, Palo Verde adopted Staff's typical and customary depreciation rates.  
22 These rates are presented in Table G-1 and it is recommended that the Palo Verde  
23 continue to use these depreciation rates by individual NARUC category.  
24
- 25 2. Staff recommends the annual testing expense of \$40,577 reported by Palo Verde be used  
26 for purposes of this application.  
27
- 28 3. Staff recommends that any increase in rates and charges approved in this proceeding not  
29 become effective until the first day of the month following Palo Verde's filing of an  
30 updated ADEQ Compliance Status Report indicating that Palo Verde is in compliance  
31 with ADEQ requirements.  
32

33 **Q. Does this conclude your Direct Testimony?**

34 **A. Yes, it does.**

## TARIFF SCHEDULE

UTILITY: Global Water  
 DOCKET NO.: W-01212A-12-0309 et al

DECISION NO. \_\_\_\_\_  
 EFFECTIVE DATE: \_\_\_\_\_

## OFF-SITE HOOK-UP FEE (WATER)

I. Purpose and Applicability

The purpose of the off-site hook-up fees payable to \_\_\_\_\_ (“the Company”) pursuant to this tariff is to equitably apportion the costs of constructing additional off-site facilities necessary to provide water production, delivery, storage and pressure among all new service connections. These charges are applicable to all new service connections established after the effective date of this tariff undertaken via Main Extension Agreements or requests for service not requiring a Main Extension Agreement. The charges are one-time charges and are payable as a condition to Company’s establishment of service, as more particularly provided below.

II. Definitions

Unless the context otherwise requires, the definitions set forth in R-14-2-401 of the Arizona Corporation Commission’s (“Commission”) rules and regulations governing water utilities shall apply in interpreting this tariff schedule.

“Applicant” means any party entering into an agreement with Company for the installation of water facilities to serve new service connections, and may include Developers and/or Builders of new residential subdivisions and/or commercial and industrial properties.

“Company” means \_\_\_\_\_.

“Main Extension Agreement” means any agreement whereby an Applicant agrees to advance the costs of the installation of water facilities necessary to the Company to serve new service connections within a development, or installs such water facilities necessary to serve new service connections and transfer ownership of such water facilities to the Company, which agreement shall require the approval of the Commission pursuant to A.A.C. R-14-2-406, and shall have the same meaning as “Water Facilities Agreement” or “Line Extension Agreement.”

“Off-site Facilities” means wells, storage tanks and related appurtenances necessary for proper operation, including engineering and design costs. Offsite facilities may also include booster pumps, pressure tanks, transmission mains and related appurtenances necessary for proper operation if these facilities are not for the exclusive use of the applicant and will benefit the entire water system.

“Service Connection” means and includes all service connections for single-family residential, commercial, industrial or other uses, regardless of meter size.

### III. Off-Site Water Hook-up Fee

For each new service connection, the Company shall collect an off-site hook-up fee derived from the following table:

OFF-SITE HOOK-UP FEE TABLE		
Meter Size	Size Factor	Total Fee
5/8" x 3/4 "	1	\$2,000
3/4"	1.5	\$3,000
1"	2.5	\$5,000
1-1/2 "	5	\$10,000
2"	8	\$16,000
3"	16	\$32,000
4"	25	\$50,000
6" or larger	50	\$100,000

### IV. Terms and Conditions

(A) Assessment of One Time Off-Site Hook-up Fee: The off-site hook-up fee may be assessed only once per parcel, service connection, or lot within a subdivision (similar to meter and service line installation charge).

(B) Use of Off-Site Hook-up Fee: Off-site hook-up fees may only be used to pay for capital items of off-site facilities or for repayment of loans obtained to fund the cost of installation of off-site facilities. Off-site hook-up fees shall not be used to cover repairs, maintenance, or operational costs.

(C) Time of Payment:

- 1) For those requiring a Main Extension Agreement: In the event that the Applicant is required to enter into a Main Extension Agreement, whereby the Applicant agrees to advance the costs of installing mains, valves, fittings, hydrants and other on-site improvements or construct such improvements in order to extend service in accordance with R-14-2-406(B), payment of the hook-up fees required hereunder shall be made by the Applicant no later than 15 calendar days after receipt of notification from the Company that the Utilities Division of the Arizona Corporation Commission has approved the Main Extension Agreement in accordance with R-14-2-406(M).
- 2) For those connecting to an existing main: In the event that the Applicant is not required to enter into a Main Extension Agreement, the hook-up fee charges hereunder shall be due and payable at the time the meter and service line installation fee is due and payable.

(D) Off-Site Facilities Construction By Developer: Company and Applicant may agree to construction of off-site facilities necessary to serve a particular development by Applicant, which facilities are then conveyed to Company. In that event, Company shall credit the total cost of such off-site facilities as an offset to off-site hook-up fees due under this Tariff. If the total cost of the off-site facilities constructed by Applicant and conveyed to Company is less than the applicable off-site hook-up fees under this Tariff, Applicant shall pay the remaining amount of off-site hook-up fees owed hereunder. If the total cost of the off-site facilities contributed by Applicant and conveyed to Company is more than the applicable off-site hook-up fees under this Tariff, Applicant shall be refunded the difference upon acceptance of the off-site facilities by the Company.

(E) Failure to Pay Charges; Delinquent Payments: The Company will not be obligated to make an advance commitment to provide or to actually provide water service to any Applicant in the event that the Applicant has not paid in full all charges hereunder. Under no circumstances will the Company set a meter or otherwise allow service to be established if the entire amount of any payment due hereunder has not been paid.

(F) Large Subdivision and/or Development Projects: In the event that the Applicant is engaged in the development of a residential subdivision and/or development containing more than 150 lots, the Company may, in its discretion, agree to payment of off-site hook-up fees in installments. Such installments may be based on the residential subdivision and/or development's phasing, and should attempt to equitably apportion the payment of charges hereunder based on the Applicant's construction schedule and water service requirements. In the alternative, the Applicant shall post an irrevocable letter of credit in favor of the Company in a commercially reasonable form, which may be drawn by the Company consistent with the actual or planned construction and hook up schedule for the subdivision and/or development.

(G) Off-Site Hook-Up Fees Non-refundable: The amounts collected by the Company as hook-up fees pursuant to the off-site hook-up fee tariff shall be non-refundable contributions in aid of construction.

(H) Use of Off-Site Hook-Up Fees Received: All funds collected by the Company as off-site hook-up fees shall be deposited into a separate interest bearing bank account and used solely for the purposes of paying for the costs of installation of off-site facilities, including repayment of loans obtained for the installation of off-site facilities that will benefit the entire water system.

(I) Off-Site Hook-up Fee in Addition to On-site Facilities: The off-site hook-up fee shall be in addition to any costs associated with the construction of on-site facilities under a Main Extension Agreement.

(J) Disposition of Excess Funds: After all necessary and desirable off-site facilities are constructed utilizing funds collected pursuant to the off-site hook-up fees, or if the off-site hook-up fee has been terminated by order of the Arizona Corporation Commission, any funds remaining in the bank account shall be refunded. The manner of the refund shall be determined by the Commission at the time a refund becomes necessary.

(K) Fire Flow Requirements: In the event the Applicant for service has fire flow requirements that require additional facilities beyond those facilities whose costs were included in the off-site hook-up fee, and which are contemplated to be constructed using the proceeds of the off-site hook-up Fee, the Company may require the Applicant to install such additional facilities as are required to meet those additional fire flow requirements, as a non-refundable contribution, in addition to the off-site hook-up fee.

(L) Status Reporting Requirements to the Commission: The Company shall submit a calendar year Off-Site Hook-Up Fee status report each January 31<sup>st</sup> to Docket Control for the prior twelve (12) month period, beginning January 31, 2015, until the hook-up fee tariff is no longer in effect. This status report shall contain a list of all customers that have paid the hook-up fee tariff, the amount each has paid, the physical location/address of the property in respect of which such fee was paid, the amount of money spent from the account, the amount of interest earned on the funds within the tariff account, and a list of all facilities that have been installed with the tariff funds during the 12 month period.

## TARIFF SCHEDULE

UTILITY: Global Water  
 DOCKET NO.: W-01212A-12-0309 et al

DECISION NO. \_\_\_\_\_  
 EFFECTIVE DATE: \_\_\_\_\_

## OFF-SITE FACILITIES HOOK-UP FEE (WASTEWATER)

I. Purpose and Applicability

The purpose of the off-site facilities hook-up fees payable to \_\_\_\_\_ (“the Company”) pursuant to this tariff is to equitably apportion the costs of constructing additional off-site facilities necessary to provide wastewater treatment plant facilities among all new service laterals. These charges are applicable to all new service laterals established after the effective date of this tariff undertaken via Collection Main Extension Agreements or requests for service not requiring a Collection Main Extension Agreement. The charges are one-time charges and are payable as a condition to Company’s establishment of service, as more particularly provided below.

II. Definitions

Unless the context otherwise requires, the definitions set forth in R-14-2-601 of the Arizona Corporation Commission’s (“Commission”) rules and regulations governing sewer utilities shall apply in interpreting this tariff schedule.

“Applicant” means any party entering into an agreement with Company for the installation of wastewater facilities to serve new service laterals, and may include Developers and/or Builders of new residential subdivisions and/or commercial and industrial properties.

“Company” means \_\_\_\_\_.

“Collection Main Extension Agreement” means any agreement whereby an Applicant agrees to advance the costs of the installation of wastewater facilities necessary to the Company to serve new service laterals within a development, or installs such wastewater facilities necessary to serve new service laterals and transfer ownership of such wastewater facilities to the Company, which agreement does not require the approval of the Commission pursuant to A.A.C. R-14-2-606, and shall have the same meaning as “Wastewater Facilities Agreement”.

“Off-site Facilities” means the wastewater treatment plant, sludge disposal facilities, effluent disposal facilities and related appurtenances necessary for proper operation, including engineering and design costs. Offsite facilities may also include lift stations, transportation mains and related appurtenances necessary for proper operation if these facilities are not for the exclusive use of the Applicant and benefit the entire wastewater system.

“Service Lateral” means and includes all service laterals for single-family residential, commercial, industrial or other uses.



### III. Off-Site Facilities Hook-up Fee

For each new service lateral, the Company shall collect an off-site facilities hook-up fee as listed in the following table:

OFF-SITE WASTEWATER HOOK-UP FEE TARIFF TABLE		
Service Lateral Size	Factor	Fee
4-inch	1	\$2,000
6-inch	2.25	\$4,500
8-inch	4	\$8,000
10-inch	6.25	\$12,500

### IV. Terms and Conditions

(A) Assessment of One Time Off-Site Facilities Hook-up Fee: The off-site facilities hook-up fee may be assessed only once per parcel, service lateral, or lot within a subdivision (similar to a service lateral installation charge).

(B) Use of Off-Site Facilities Hook-up Fee: Off-site facilities hook-up fees may only be used to pay for capital items of off-site facilities, or for repayment of loans obtained to fund the cost of installation of off-site facilities. Off-site hook-up fees shall not be used to cover repairs, maintenance, or operational costs.

(C) Time of Payment:

(1) For those requiring a Collection Main Extension Agreement: In the event that the Applicant is required to enter into a Collection Main Extension Agreement, whereby Applicant agrees to advance the costs of on-site improvements or construct such improvements, payment of the fees required hereunder shall be made by the Applicant when payment is made for the on-site improvements or 30 days after the Collection Main Extension Agreement is executed, whichever is later.

(2) For those connecting to an existing main: In the event that the Applicant is not required to enter into a Collection Main Extension Agreement, the hook-up fee charges hereunder shall be due and payable at the time wastewater service is requested for the property.

(D) Off-Site Facilities Construction by Developer: Company and Applicant may agree to construction of off-site facilities necessary to serve a particular development by Applicant, which facilities are then conveyed to Company. In that event, Company shall credit the total cost of such off-site facilities as an offset to off-site hook-up fees due under this Tariff. If the total cost of the off-site facilities constructed by Applicant and conveyed to Company is less than the applicable off-site hook-up fees under this Tariff, Applicant shall pay the remaining amount of off-site hook-up fees owed hereunder. If the total cost of the off-site facilities contributed by Applicant and conveyed to Company is more than the applicable off-site hook-up fees under this

Tariff, Applicant shall be refunded the difference upon acceptance of the off-site facilities by the Company.

(E) Failure to Pay Charges; Delinquent Payments: The Company will not be obligated to make an advance commitment to provide or to actually provide wastewater service to any Applicant in the event that the Applicant has not paid in full all charges hereunder. Under no circumstances will the Company connect service or otherwise allow service to be established if the entire amount of any payment due hereunder has not been paid.

(F) Large Subdivision and/or Development Projects: In the event that the Applicant is engaged in the development of a residential subdivision and/or development containing more than 150 lots, the Company may, in its discretion, agree to payment of off-site hook-up fees in installments. Such installments may be based on the residential subdivision and/or development's phasing, and should attempt to equitably apportion the payment of charges hereunder based on the Applicant's construction schedule and wastewater service requirements. In the alternative, the Applicant shall post an irrevocable letter of credit in favor of the Company in a commercially reasonable form, which may be drawn by the Company consistent with the actual or planned construction and hook up schedule for the subdivision and/or development.

(G) Off-Site Hook-Up Fees Non-refundable: The amounts collected by the Company as hook-up fees pursuant to the off-site facilities hook-up fee tariff shall be non-refundable contributions in aid of construction.

(H) Use of Off-Site Hook-Up Fees Received: All funds collected by the Company as off-site facilities hook-up fees shall be deposited into a separate interest bearing bank account and used solely for the purposes of paying for the costs of installation of off-site facilities, including repayment of loans obtained for the installation of off-site facilities.

(I) Off-Site Facilities Hook-up Fee in Addition to On-site Facilities: The off-site facilities hook-up fee shall be in addition to any costs associated with the construction of on-site facilities under a Collection Main Extension Agreement.

(J) Disposition of Excess Funds: After all necessary and desirable off-site facilities are constructed utilizing funds collected pursuant to the off-site facilities hook-up fees, or if the off-site facilities hook-up fee has been terminated by order of the Arizona Corporation Commission, any funds remaining in the bank account shall be refunded. The manner of the refund shall be determined by the Commission at the time a refund becomes necessary.

(K) Status Reporting Requirements to the Commission: The Company shall submit a calendar year Off-Site Facilities Hook-Up Fee status report each January 31<sup>st</sup> to Docket Control for the prior twelve (12) month period, beginning January 31, 2015, until the hook-up fee tariff is no longer in effect. This status report shall contain a list of all customers that have paid the hook-up fee tariff, the amount each has paid, the physical location/address of the property in respect of which such fee was paid, the amount of money spent from the account, the amount of interest earned on the funds within the tariff account, and a list of all facilities that have been installed with the tariff funds during the 12 month period.

**EXHIBIT JW-1**

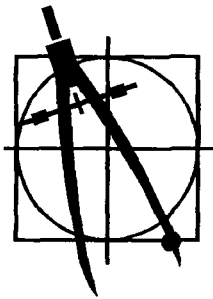
**ENGINEERING REPORT FOR**

**VALENCIA WATER COMPANY, INC.,**

**DOCKET NO. W-01212A-12-0309 (RATES)**

**JIAN W LIU**

**May 22, 2013**



**Engineering Report for:  
Valencia Water Company, Inc. for a Rate  
Increase  
Docket No. W-01212A-12-0309 (Rates)**

**By: Jian W Liu  
Utilities Engineer**

**May 22, 2013**

## **EXECUTIVE SUMMARY**

### **CONCLUSIONS:**

1. Arizona Department of Environmental Quality (“ADEQ”) or its formally delegated agent, the Maricopa County Environmental Services Department (“MCESD”), reported that the Valencia Water Company - Town Division (“Valencia-Town” or “Company”) drinking water system (Public Water System (“PWS”) 07-078) is currently delivering water that meets water quality standards required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141 National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4. (MCESD report dated April 1, 2013).
2. Valencia-Town is located in the Phoenix Active Management Area (“AMA”) and is subject to its AMA reporting and conservation requirements. Staff received an Arizona Department of Water Resources (“ADWR”) compliance status report dated March 13, 2013. ADWR reported that Valencia-Town is currently in compliance with departmental requirements governing water providers and/or community water systems.
3. Staff concludes that the Valencia-Town drinking water system has adequate production capacity and storage capacity to serve the existing customer base and reasonable growth rate.
4. The Company has an approved Curtailment Plan Tariff on file with the Commission.
5. The Company has a Backflow Prevention Tariff on file with the Commission.
6. Valencia-Town has ten approved Best Management Practice tariffs on file with the Commission.
7. A check with the Utilities Division Compliance Section showed no delinquent compliance items for Valencia-Town. (ACC Compliance Section Email dated May 17, 2013).

8. The Company submitted five post-test year plant additions for inclusion in rate base. Only post-test year plant additions 3) and 4) were in service during my inspection on April 11, 2013. (see Section L for details).

## **RECOMMENDATIONS**

1. In the prior rate case, the Company adopted Staff's typical and customary water depreciation rates. These rates are presented in Table B and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.
2. Staff recommends the annual water testing expense of \$14,571 reported by the Company be used for purposes of this application.
3. The Company has not requested any changes in its service line and meter installation charges that were approved in its last rate application. Therefore, Staff recommends continued use of the Company's current meter and service line installation charges.
4. Staff recommends that within 90 days of a Decision in this matter the Company file with Docket Control, as a compliance item in this docket, a detailed plan demonstrating how the Company will reduce its water loss for Valencia-Town to less than 10 percent. If the Company finds that reduction of water loss to less than 10 percent is not cost-effective, the Company should submit, within 90 days of a Decision in this matter, a detailed cost analysis and explanation demonstrating why water loss reduction to less than 10 percent is not cost-effective.

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**FIGURES**

County Map.....	FIGURE 1
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**A. LOCATION OF COMPANY**

Valencia Water Company - Town Division ("Valencia-Town" or "Company") is located approximately 40 miles west of downtown Phoenix in Maricopa County with a certificated area covering approximately 7,500 acres. Figure 1 shows the location of Valencia-Town within Maricopa County and Figure 2 shows the certificated area.

**B. DESCRIPTION OF THE WATER SYSTEM**

The plant facilities were visited on April 11, 2013, by Jian Liu, Staff Utilities Engineer, in the accompaniment of Ron Fleming, Harold Thomas, Larry Thomas and Joel Wade of the Company.

The facility consists of 9 active wells with total pumping capacity of 4,195 gallon per minute ("GPM"), 7 arsenic treatment systems ("ATS"), 18 storage tanks with total storage capacity of 4,833,000 gallons, hydro-pneumatic systems and a distribution system serving approximately 5,350 active connections. Staff concludes that the Valencia-Town has adequate production capacity and storage capacity to serve the existing customer base and reasonable growth.

*(Tabular Description of Water System)*

Well Data (active wells only)

ADWR ID No.	Pump HP	Pump GPM	Casing Depth(ft)	Casing Size(in)	Meter Size(in)	Year Drilled
55- 201740 Sonoran Vista NE	150	700	645	11	6	2004
55- 202399 Riata Well #2	125	525	660	11	8	2004
55- 202400 Bales School Well	50	750	550	11	4	2004
55- 207806 4th & Central	25	410	820	11	6	2006
55- 577508 4th & Baseline Large Well #2	60	600	620	8	6	2000
55- 592220 Blue Hills Deep Well #2	60	350	580	11	6	2002
55- 595258 Sonoran Vista SW	75	500	750	11	6	2003
55- 599204 Blue Hills Shallow Well #1	20	110	320	9	4	2003
55- 599950 7th & Alarcon Large Well #2	50	250	800	10	4	2004
Total Production	-	4195	-	-	-	-

Note: GPM = gallons per minute.

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
25,000	2	1,000	1	5	4
50,000	3	2,000	1	15	6
100,000	2	3,000	1	20	4
128,000	1	5,000	8	25	4
180,000	1	6,000	2	30	3
195,000	1	12,000	1	40	11
215,000	1			50	9
240,000	1			60	2
500,000	2			100	2
550,000	1			125	2
750,000	1			150	3
900,000	1			200	2
1,000,000	1				
Total 4,833,000					

Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
1	79	5/8x3/4	5,453	835
2	2,068	3/4	21	
3	1,415	1	112	
4	24,461	1.5	26	
6	56,183	2	133	
8	332,881	3	2	
10	7,010	6	4	
12	76,314			
16	50,019			
18	8,026			
Unknown	1,754			
		Total Metered Connections	5,751	



**C. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY COMPLIANCE  
("ADEQ")**

ADEQ or its formally delegated agent, the Maricopa County Environmental Services Department ("MCESD"), reported that the Valencia-Town drinking water system (Public Water System ("PWS") 07-078) is currently delivering water that meets water quality standards required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141 National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4. (MCESD report dated April 1, 2013)

**D. ARIZONA CORPORATION COMMISSION ("ACC") COMPLIANCE**

A check with the Utilities Division Compliance Section showed no delinquent compliance items for Valencia-Town. (ACC Compliance Section Email dated May 17, 2013)

**E. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR")  
COMPLIANCE**

Valencia-Town is located in the Phoenix Active Management Area ("AMA") and is subject to its AMA reporting and conservation requirements. Staff received an ADWR compliance status report dated March 13, 2013. ADWR reported that Valencia-Town is currently in compliance with departmental requirements governing water providers and/or community water systems.

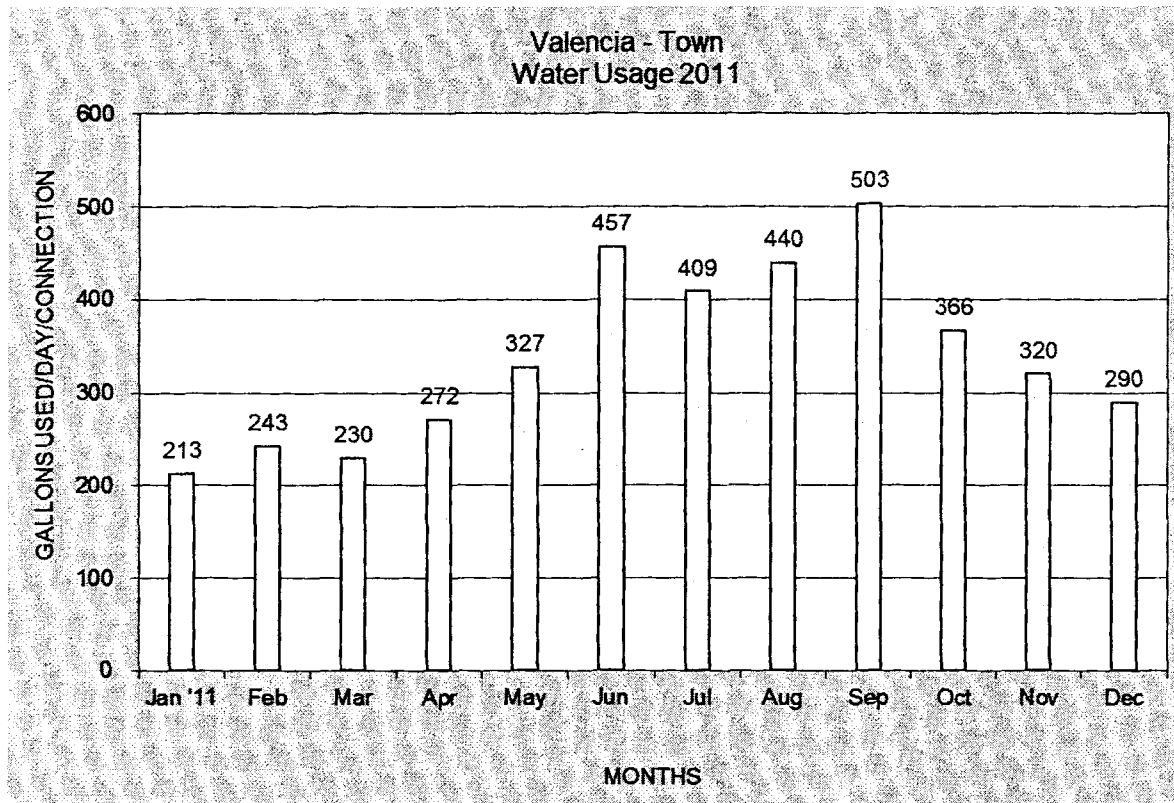
**F. WATER TESTING EXPENSES**

The Company reported a total testing expense of \$14,570.72 during the test year, the Company provided invoices and other documents to support this amount. Staff has reviewed the information provided by the Company and recommends the Company's reported annual testing expense of \$14,571 (rounded) be used for purposes of this application.

**G. WATER USE**

Water Sold

Based on the information provided by the Company, water use for the year 2011 is presented below. The high monthly domestic water use was 503 gal/day per service connection in September and the low monthly domestic water use was 213 gal/day per service connection in January. The average annual use was 339 gal/day per service connection.



#### Non-account Water

Non-account water should be 10% or less and never more than 15%. It is important to be able to reconcile the difference between water sold and the water produced by the source. A water balance will allow a water company to identify water and revenue losses due to leakage, theft, and flushing. The Company reported 751,697,000 gallons pumped and 653,827,000 gallons sold, resulting in a water loss of 13.02% for 2011.

Staff recommends that within 90 days of a Decision in this matter the Company file with Docket Control, as a compliance item in this docket, a detailed plan demonstrating how the Company will reduce its water loss for Valencia-Town to less than 10 percent. If the Company finds that reduction of water loss to less than 10 percent is not cost-effective, the Company should submit, within 90 days of a Decision in this matter, a detailed cost analysis and explanation demonstrating why water loss reduction to less than 10 percent is not cost-effective.

#### **H. GROWTH**

In July 2009, the Company had 5,019 active customers and in December 31, 2011, the Company had 5,343 active customers. The customer base grew at approximately 2.5% per year

from July 2009 to December 2011. The Company estimates that the customer base will grow at approximately 2 to 3% per year for the next 5 years.

**I. DEPRECIATION RATES**

In the prior rate case, the Company adopted Staff's typical and customary water depreciation rates. These rates are presented in Table B and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.

Table B. Depreciation Rates

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00

344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	---	---

**NOTES:**

1. These depreciation rates represent average expected rates. Water companies may experience different rates due to variations in construction, environment, or the physical and chemical characteristics of the water.
2. Acct. 348, Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.

**J. CURTAILMENT PLAN AND BACKFLOW PREVENTION TARIFFS**

The Company has approved Curtailment Plan and Backflow Prevention Tariffs on file with the Commission.

Valencia-Town has ten approved Best Management Practice tariffs on file with the Commission.

**K. METER AND SERVICE LINE INSTALLATION CHARGES**

The Company has not requested any changes in its service line and meter installation charges that were approved in its last rate application. Therefore, Staff recommends continued use of the Company's current meter and service line installation charges.

**L. POST-TEST YEAR PLANT**

The Company submitted five post-test year plant additions for inclusion in rate base. These five post-test year project additions are as follows:

	Construction Status (As April 11, 2013)
1) Bales Fill Line;	Pending
2) Buena Vista Fill Line;	Pending
3) Pima Road Waterline;	Completed
4) West Valley Region Supervisory Control and Data Acquisition ("SCADA") - Command Station Improvements	Completed
5) Sonoran Vista Water Distribution Center Optimization	Pending

Staff has inspected and verified completion of the post-test year plant additions Items numbered 3) and 4) above. These two post-test year plant additions were in-service during Staff's inspection on April 11, 2013.

Valencia Water Company  
Docket No. W-01212A-12-0309

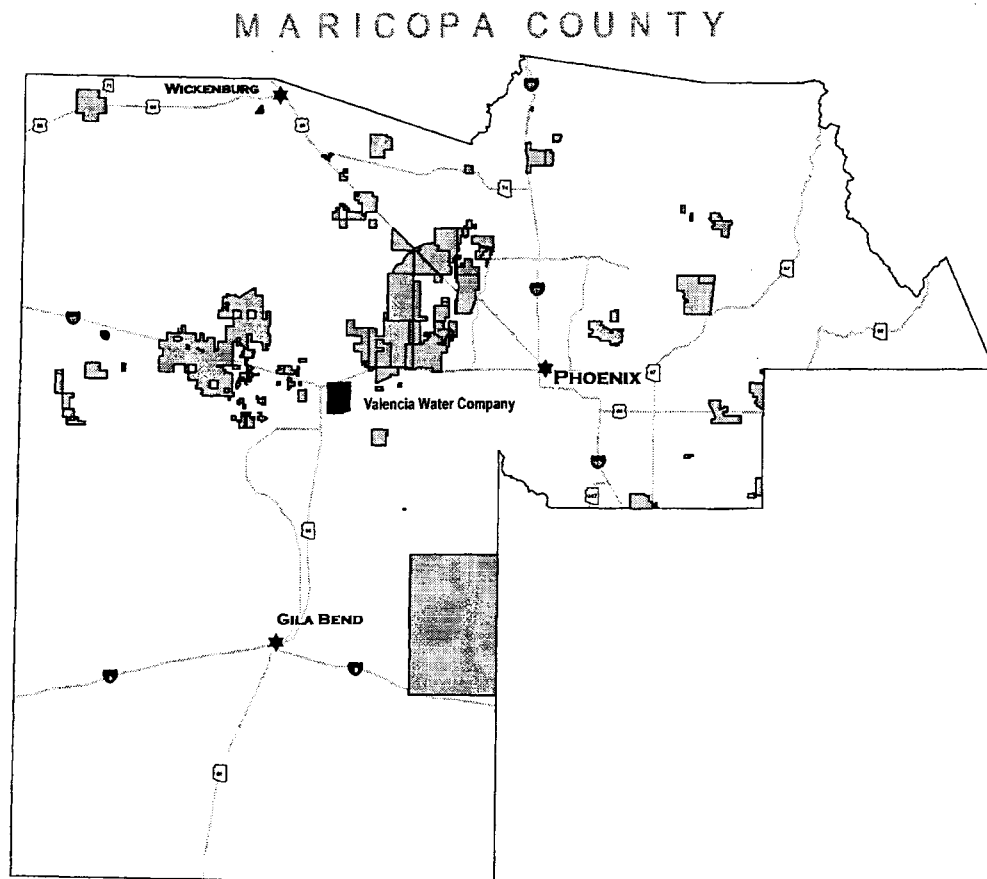


Figure 1. County Map

Valencia Water Company  
Docket No. W-01212A-12-0309

MARICOPA COUNTY

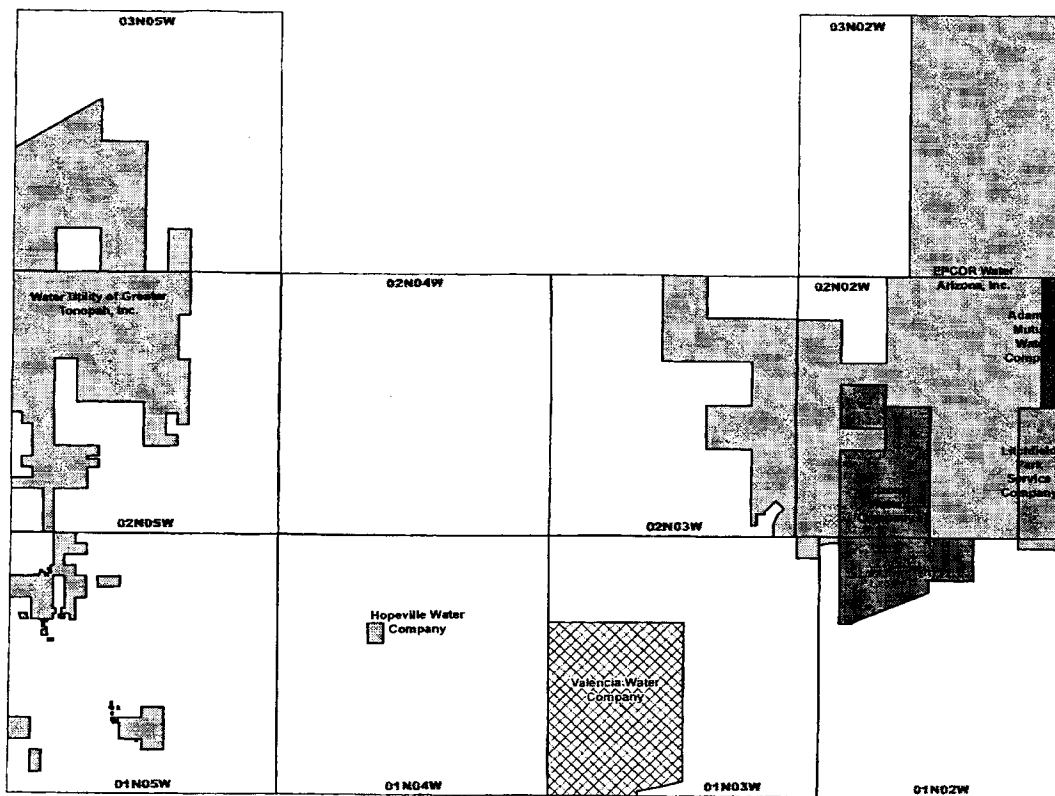


Figure 2. Certificated Area

**EXHIBIT JW-2**

**ENGINEERING REPORT FOR**

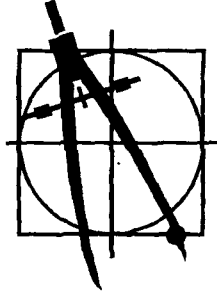
**WATER UTILITY OF NORTHERN SCOTTSDALE**

**DOCKET NO. W-03720A-12-0311 (RATES)**

**JIAN W LIU**

**May 28, 2013**





**Engineering Report for:  
Water Utility of Northern Scottsdale for a  
Rate Increase  
Docket No. W-03720A-12-0311 (Rates)**

**By: Jian W Liu  
Utilities Engineer**

**May 28, 2013**

## **EXECUTIVE SUMMARY**

### **CONCLUSIONS:**

1. Arizona Department Of Environmental Quality ("ADEQ") or its formally delegated agent, the Maricopa County Environmental Services Department ("MCESD"), reported that the Water Utility of Northern Scottsdale ("WUNS" or "Company") drinking water system (Public Water System ("PWS") Number 07-179) is currently delivering water that meets water quality standards required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141 National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4. (MCESD report dated April 1, 2013).
2. WUNS is located in the Phoenix Active Management Area ("AMA") and is subject to its AMA reporting and conservation requirements. Staff received an Arizona Department of Water Resources ("ADWR") compliance status report dated March 13, 2013. ADWR reported that WUNS is currently in compliance with departmental requirements governing water providers and/or community water systems.
3. Staff concludes that the WUNS drinking water system has adequate production capacity and storage capacity to serve the existing customer base and reasonable growth rate.
4. The Company has an approved Curtailment Plan Tariff on file with the Commission.
5. The Company has a Backflow Prevention Tariff on file with the Commission.
6. A check with the Utilities Division Compliance Section showed no delinquent compliance items for WUNS. (ACC Compliance Section Email dated April 3, 2013).

## RECOMMENDATIONS

1. In the prior rate case, the Company adopted Staff's typical and customary water depreciation rates. These rates are presented in Table B and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.
2. Staff recommends the annual water testing expense of \$728 reported by the Company be used for purposes of this application.
3. The Company has not requested any changes in its service line and meter installation charges that were approved in its last rate application. Therefore, Staff recommends continued use of the Company's current meter and service line installation charges.
4. Staff recommends that the Company monitor the WUNS water system and submit the gallons pumped and sold to determine the non-account water for one full year. The Company should coordinate when it reads the well meters each month with customer billing so that an accurate accounting is determined. The results of this monitoring and reporting shall be docketed as a compliance item in this case within 13 months of the effective date of the order issued in this proceeding. If the reported water loss is greater than 10 percent the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to 10 percent or less. If the Company believes it is not cost effective to reduce the water loss to less than 10 percent, it should submit a detailed cost benefit analysis to support its opinion. In no case shall the Company allow water loss to be greater than 15 percent. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item within 13 months of the effective date of the order issued in this proceeding.
5. Staff recommends that WUNS adopt the three BMPs approved in Decision No. 73268 for the other Global Companies with customer counts less than 5,000. Staff further recommends that WUNS notify its customers, in a form acceptable to Staff, of the BMP tariffs authorized in this proceeding and their effective date by means of either an insert in the next regularly scheduled billing or by a separate mailing and shall provide copies of the BMP tariffs to any customer, upon request.

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**FIGURES**

County Map.....	FIGURE 1
Certificated Area.....	FIGURE 2

**A. LOCATION OF COMPANY**

The Water Utility of Northern Scottsdale (“WUNS” or “Company”) water system is located approximately 40 miles northeast of downtown Phoenix in Maricopa County with a certificated area covering approximately 3/4 of a square mile. Figure 1 shows the location of WUNS within Maricopa County and Figure 2 shows the certificated area.

**B. DESCRIPTION OF THE WATER SYSTEM**

The plant facilities were visited on April 12, 2013, by Jian Liu, Staff Utilities Engineer, in the accompaniment of Harold Thomas, and Larry Thomas of the Company.

The facility follows a typical configuration found in small water systems. It consists of two wells, one 5,000 gallon pressure tank, one 250,000 gallon storage tank and a distribution system serving 76 active connections. Staff concludes that WUNS has adequate production capacity and storage capacity to serve the existing customer base and reasonable growth.

*(Tabular Description of Water System)*

Well Data (active wells only)

	Well No 1	Well No 2	Total Pump Yield
ADWR ID No.	55-565172	55-586186	
Casing Size	8 inch	8 inch	-
Casing Depth	1,000 ft	1,000 ft	-
Pump Size	15 Hp	15 Hp	-
Pump Yield	80 gal/min	80 gal/min	160 gal/min

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
250,000	1	5,000	1	100	1
				25	2
Total 250,000					

Distribution Mains

Diameter (inch)	Length(ft)
6	175
8	23,555
10	16,803
12	6,810
16	70

Meters

Size (inch)	Quantity
1	72
1 1/2	5
2	1
Total Metered Connections	78

**C. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY COMPLIANCE ("ADEQ")**

ADEQ or its formally delegated agent, the Maricopa County Environmental Services Department (MCESD), reported that the WUNS drinking water system (Public Water System ("PWS") Number 07-179) is currently delivering water that meets water quality standards required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141 National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4. (MCESD report dated April 1, 2013)

**D. ARIZONA CORPORATION COMMISSION ("ACC") COMPLIANCE**

A check with the Utilities Division Compliance Section showed no delinquent compliance items for WUNS. (ACC Compliance Section Email dated April 3, 2013).

**E. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR") COMPLIANCE**

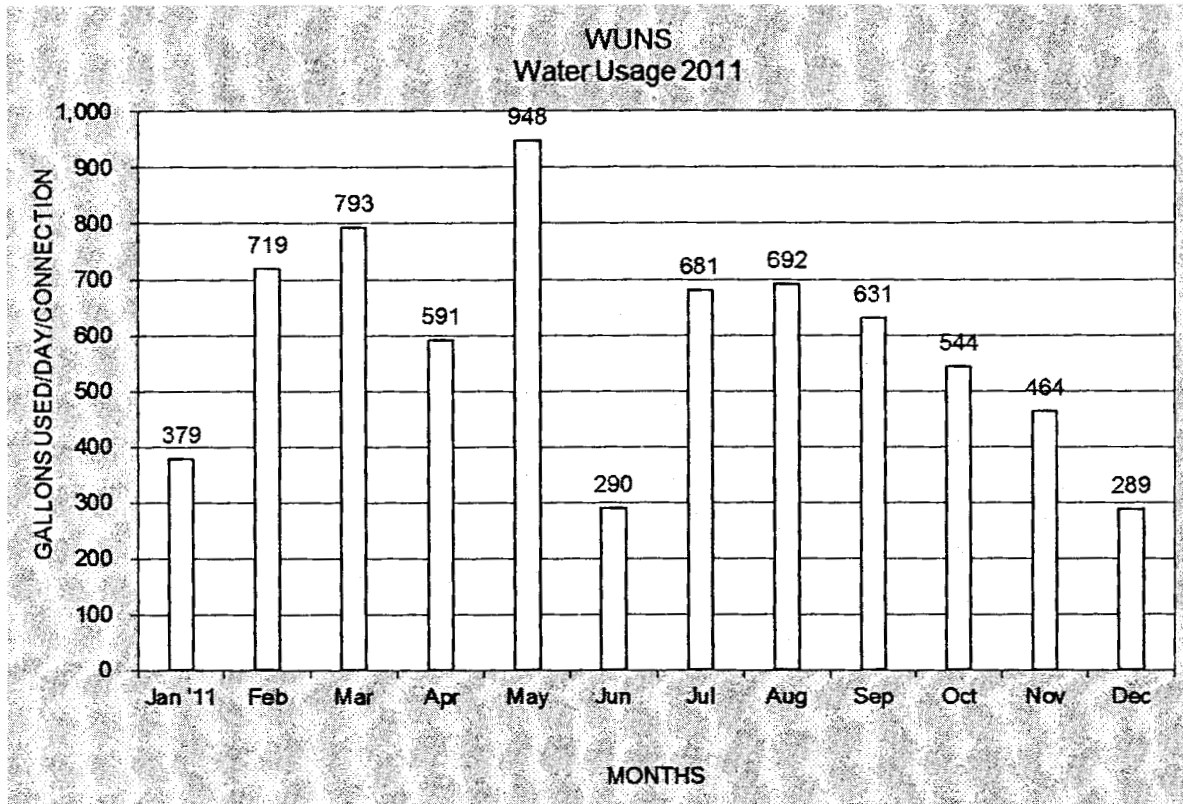
WUNS is located in the Phoenix Active Management Area ("AMA") and is subject to its AMA reporting and conservation requirements. Staff received an ADWR compliance status report dated March 13, 2013. ADWR reported that WUNS is currently in compliance with departmental requirements governing water providers and/or community water systems.

**F. WATER TESTING EXPENSES**

The Company reported a total testing expense of \$728.03 during the test year, the Company provided invoices and other documents to support this amount. Staff has reviewed the information provided by the Company and recommends the Company's reported annual testing expense of \$728 (rounded) be used for purposes of this application.

**G. WATER USE**

Based on the information provided by the Company, water use for the year 2011 is presented below. The high monthly domestic water use was 948 gal/day per service connection in May and the low monthly domestic water use was 289 gal/day per service connection in December. The average annual use was 585 gal/day per service connection.



### Non-account Water

Non-account water should be 10% or less and never more than 15%. It is important to be able to reconcile the difference between water sold and the water produced by the source. A water balance will allow a water company to identify water and revenue losses due to leakage, theft, and flushing. The Company reported 15,382,000 gallons pumped and 15,829,000 gallons sold<sup>1</sup>, resulting in a water loss of -2.91% for 2011. The quantity of water sold cannot exceed the quantity of water pumped for the same period of time which suggests that the water use data reported is invalid.

Staff recommends that the Company monitor the WUNS water system and submit the gallons pumped and sold to determine the non-account water for one full year. The Company should coordinate when it reads the well meters each month with customer billing so that an accurate accounting is determined. The results of this monitoring and reporting shall be docketed as a compliance item in this case within 13 months of the effective date of the order issued in this proceeding. If the reported water loss is greater than 10 percent the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to 10 percent or less. If the Company believes it is not cost effective to reduce the water loss to less than 10 percent, it should submit a detailed cost benefit analysis to support its opinion. In no case shall the Company allow water loss to be greater than 15 percent. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item within 13 months of the effective date of the order issued in this proceeding.

## **H. GROWTH**

In December 2007 the Company had 74 active customers and in December 2011, the Company had 76 active customers. Growth expected to be minimal.

## **I. DEPRECIATION RATES**

In the prior rate case, the Company adopted Staff's typical and customary water depreciation rates. These rates are presented in Table B and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.

Table B. Depreciation Rates

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<sup>1</sup> Company states "sold more than pumped" because of back-billing. There is a time difference between read the meters and billing cycles.

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	---	---

NOTES:

1. These depreciation rates represent average expected rates. Water companies may experience different rates due to variations in construction, environment, or the physical and chemical characteristics of the water.
2. Acct. 348, Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.



**J. CURTAILMENT PLAN AND BACKFLOW PREVENTION TARIFFS**

The Company has approved Curtailment Plan and Backflow Prevention Tariffs on file with the Commission.

The Company does not have an approved Best Management Practices (“BMPs”) tariff. In Decision No. 73268, ACC approved the following three BMPs for Global Water - Santa Cruz Water Company, Valencia Water Company - Town Division, Valencia Water Company - Greater Buckeye Division, Water Utility of Greater Tonopah and Willow Valley Water Company.

- **Local and/or Regional Messaging Program Tariff - BMP 1.1:** A program for the Company to actively participate in a water conservation campaign with local or regional advertising.
- **Meter Repair and/or Replacement Tariff - BMP 4.2:** A program for the Utility to systematically assess all in-service water meters (including Company production meters) in its water service area to identify under-registering meters and to repair or replace them.
- **Water System Tampering Tariff - BMP 5.2:** The purpose of this tariff is to promote the conservation of groundwater by enabling the Utility to bring an action for damages or to enjoin any activity against a person who tampers with the water system.

Staff recommends that WUNS adopt the three BMPs approved in Decision No. 73268 with customer counts less than 5,000.

Staff further recommends that the WUNS shall notify their customers, in a form acceptable to Staff, of the BMP tariffs authorized in this proceeding and their effective date by means of either an insert in the next regularly scheduled billing or by a separate mailing and shall provide copies of the BMP tariffs to any customer, upon request.

**K. METER AND SERVICE LINE INSTALLATION CHARGES**

The Company has not requested any changes in its service line and meter installation charges that were approved in its last rate application. Therefore, Staff recommends continued use of the Company’s current meter and service line installation charges.

Water Utility of Northern Scottsdale  
Docket No. W-03720A-12-0311

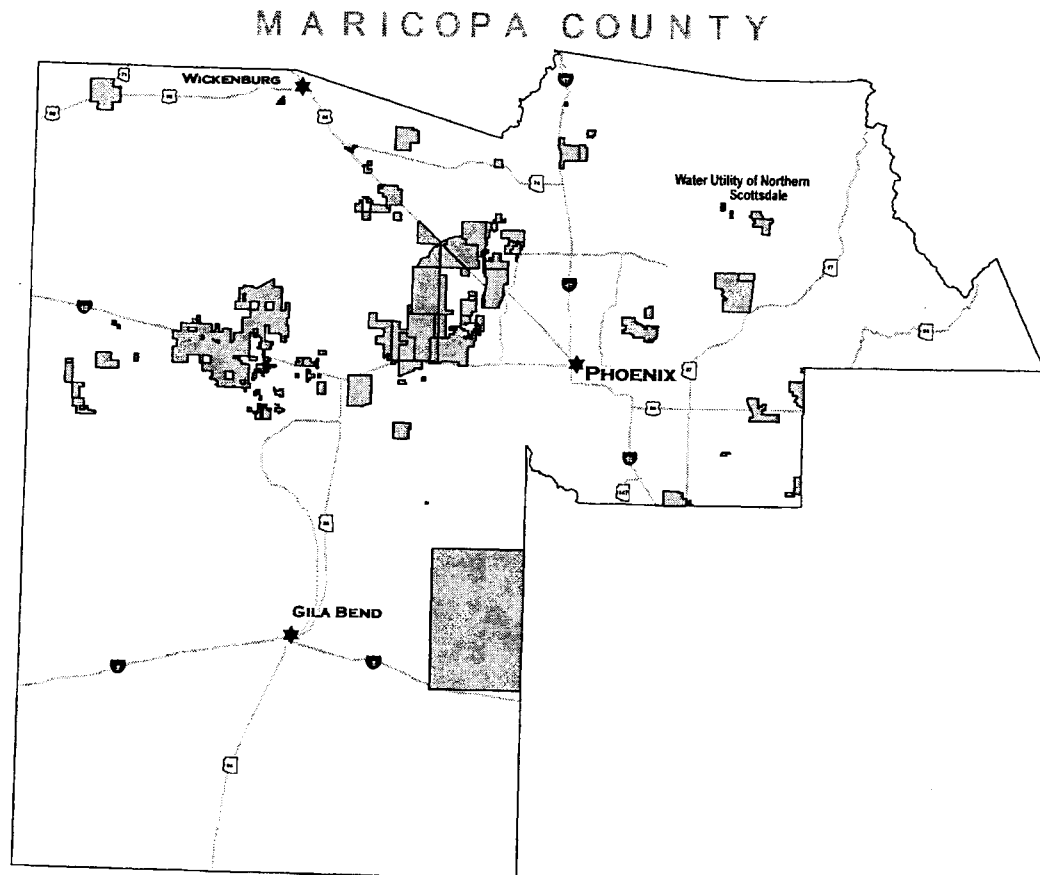


Figure 1. County Map

Water Utility of Northern Scottsdale  
Docket No. W-03720A-12-0311

M A R I C O P A   C O U N T Y

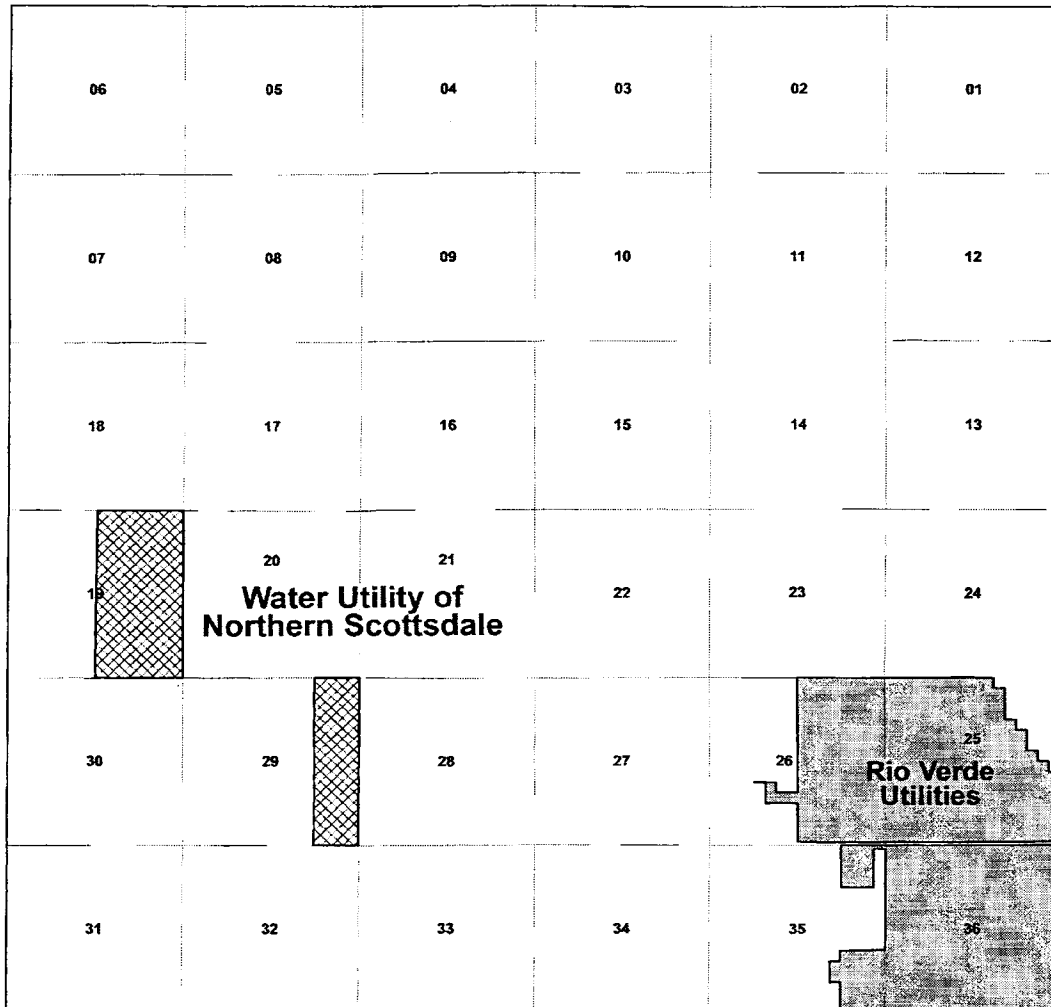


Figure 2. Certificated Area

**EXHIBIT JW-3**

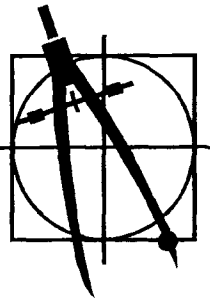
**ENGINEERING REPORT FOR**

**WATER UTILITY OF GREATER TONOPAH, INC.**

**DOCKET NO. W-02450A-12-0312 (RATES)**

**JIAN W LIU**

**June 6, 2013**



**Engineering Report for WATER UTILITY OF  
GREATER TONOPAH, INC.**

**Docket No. W-02450A-12-0312 (Rates)**

**By: Jian Liu  
Utilities Engineer**

**June 6, 2013**

**CONCLUSIONS**

1. Arizona Department of Environmental Quality (“ADEQ”) or its formally delegated agent, the Maricopa County Environmental Services Department (“MCESD”), reported that the Water Utility of Greater Tonopah, Inc. (“WUGT” or “Company”) drinking water systems are currently delivering water that meets water quality standards required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141 National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4.
2. WUGT is located in the Phoenix Active Management Area (“AMA”) and is subject to its AMA reporting and conservation requirements. Staff received an Arizona Department of Water Resources (“ADWR”) compliance status report dated March 13, 2013. ADWR reported that WUGT is currently in compliance with departmental requirements governing water providers and/or community water systems.
3. A check with the Arizona Corporation Commission (“ACC” or “Commission”) Utilities Division Compliance Section showed no delinquent compliance items for WUGT.
4. The Company has approved Curtailment Plan and Backflow Prevention Tariffs on file with the Commission.
5. ACC Utilities Division Staff (“Staff”) concludes that WUGT has adequate production capacity and storage capacity to serve the existing customer base and reasonable growth.
6. WUGT has three approved Best Management Practice (“BMP”) tariffs on file with the Commission.
7. Staff has inspected and verified completion of the three post-test year plant additions. These three post-test year plant additions were in-service during Staff’s inspection on April 11, 2013. (See Section 1 for more details).

## RECOMMENDATIONS

1. Staff recommends that the Company file each May a report covering the previous calendar year (with the first report due in May 2014 to cover the year of 2013) that contains all work activities undertaken in accordance with Decision No. 71878 regarding the Company's plan for reducing water loss below 10 percent. Staff further recommends that the written report continue until the water loss for all WUGT water systems is 10 percent or less for one full calendar year.
2. Staff recommends the annual water testing expense of \$5,108 reported by the Company be used for purposes of this application.
3. In the prior rate case, the Company adopted Staff's typical and customary water depreciation rates. These rates are presented in Table B and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.
4. The Company has not requested any changes in its service line and meter installation charges that were approved in its last rate application. Therefore, Staff recommends continued use of the Company's current meter and service line installation charges.

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**A. LOCATION OF COMPANY**

Water Utility of Greater Tonopah, Inc. ("WUGT" or "Company") is located approximately 60 miles west of downtown Phoenix in Maricopa County with a certificated area covering approximately 65,600 acres, or approximately 102 square miles. Figure 1 shows the location of WUGT within Maricopa County and Figure 2 shows the certificated area.

**B. DESCRIPTION OF THE WATER SYSTEMS**

The plant facilities were visited on April 11, 2013, by Jian Liu, Staff Utilities Engineer, in the accompaniment of Ron Fleming, Harold Thomas, Larry Thomas and Joel Wade of the Company. The Company operates eight independent water systems with brief descriptions as follows:

1. Garden City, Public Water System ("PWS") 07-037: This system consists of a well that pumps water into two storage tanks, a booster pump then pumps the water to a pressure tank before delivery to customers through the distribution system. This system serves 15 active connections.
2. Roseview, PWS 07-082: This system consists of a well that pumps water into a storage tank, two booster pumps then pump the water to a pressure tank before delivery to customers through the distribution system. This system serves 18 active connections. There is a point of use reverse osmosis arsenic treatment system for each service connection.
3. West Phoenix Estates ("WPE") #1, PWS N/A: This system consists of a well that pumps water into a storage tank, a booster pump then pumps the water to two pressure tanks before delivery to customers through the distribution system. This system serves 5 active connections. There is a point of use reverse osmosis arsenic treatment system for each service connection.
4. WPE #6, PWS 07-733: This system consists of a well, one arsenic/fluoride treatment system, three storage tanks, one pressure tank and a distribution system. This system serves 25 active connections.
5. Tufte, PWS 07-617: This system consists of a well that pumps water into a storage tank, a booster pump then pumps the water to a pressure tank before delivery to customers through the distribution system. This system serves 5 active connections. There is a point of use reverse osmosis arsenic treatment system for each service connection.
6. Buckeye Ranch, PWS 07-618: This system consists of a well, one arsenic treatment system, one storage tank, a pressure tank and a distribution system. This system serves 87 active connections.



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7. Dixie, PWS 07-030: This system consists of a well that pumps water into two storage tanks, a booster pump then pumps the water to a pressure tank before delivery to customers through the distribution system. This system serves 37 active connections.
8. Sunshine, PWS 07-071: This system consists of a well, one arsenic treatment system, one storage tank, a pressure tank and a distribution system. This system serves 132 active connections.

Combined detailed plant facility listings are as follows:

Table 1. Well Data (active wells only)

Location/No.	ADWR ID No.	Pump Hp	Pump GPM	Casing Size	Casing Depth (Feet)	Meter Size	Year Drilled
Garden City	55-804131	5	30	8"	927	2"	1961
Roseview	55-802143	5	30	16"	1000	1 1/2"	1960
WPE #1	55-600209	3	26	8"	365	2"	1967
WPE #6	55-802145	5	25	8"	600	2"	1978
Tufte	55-802144	2	20	8"	400	1 1/2"	1977
Buckeye Ranch	55-802962	10	150	16"	900	4"	1955
Dixie	55-639586	5	40	16"	367	2"	1948
Sunshine	55-802141	7.5	100	8"	200	3"	1976

Garden City, PWS 07-037

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
12,000	2	2,000	1	5	1
Total 24,000					

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Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
4	15,663	5/8x3/4	14	None
6	4,697	1	3	
		1.5	1	
		Total Metered Connections	18	

Roseview, PWS 07-082

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
7,600	1	1,000	1	3	2
Total 7,600					

Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
		5/8x3/4	20	None
6	6,494	3/4	1	
		Total Metered Connections	21	

WPE #1, PWS N/A

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
5,000	1	30	2	5	1
Total 5,000					

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Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
		5/8x3/4	6	None
4	33,100	1	2	
		Total Metered Connections	8	

WPE #6, PWS 07-733

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
18,000	1	2,000	1	7.5	2
10,000	1				
9,500	1				
Total 37,500					

Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
4	36,511	5/8x3/4	29	None
6	7,532			
8	4,476			
		Total Metered Connections	29	

Tufte, PWS 07-617

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
5,400	1	800	1	5	1
Total 5,400					

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Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
2	41	5/8x3/4	7	None
4	579			
6	4,317			
10	21			
		Total Metered Connections	7	

Buckeye Ranch, PWS 07-618

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
222,000	1	1,500	1	7.5	1
150,000	1			10	3
Total 372,000				100	1

Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
4	31,317	5/8x3/4	91	14
6	8,488	3/4	1	
8	7,776	1	4	
Unknown	62	2	1	
		3	1	
		Total Metered Connections	98	

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Dixie, PWS 07-030

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
10,000	1	500	1	5	1
5,000	1				
Total 15,000					

Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
2	10,475	5/8x3/4	40	None
3	1,464	3/4		
4	3,553	1	1	
8	2,075			
		Total Metered Connections	41	

Sunshine, PWS 07-071

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
100,000	1	5,000	1	30	2
Total 100,000					

Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
2	106	5/8x3/4	138	
4	27,155	3/4	2	
6	11,925	1	3	
8	14,659	1.5	1	
12	7,725	2	1	
14	207	6	1	
		Total Metered Connections	146	

**C. WATER USE**

**Water Sold**

Based on the information provided by the Company on its Water Use Data Sheets, water use for the year 2011 is presented below for each system.

Water Use, gallons per day ("GPD") per connection

Water System Name	High	Low	Average
Garden City, PWS 07-037	528 in July	155 in Jan.	337
Roseview, PWS 07-082	539 in June	175 in Jan.	354
WPE #1, PWS N/A	180 in June	105 in Jan.	153
WPE #6, PWS 07-733	256 in Sept	107 in Jan.	180
Tufte, PWS 07-617	263 in July	129 in May	187
Buckeye Ranch, PWS 07-618	344 in Aug.	176 in Jan.	274
Dixie, PWS 07-030	394 in Sept.	155 in Jan.	290
Sunshine, PWS 07-071	481 in Oct.	164 in Jan.	339

**Non-Account Water**

For each water system, the Company reported the following gallons pumped and gallons sold in 2011, which Staff used to determine the water loss per system:

Table 2. Water Loss

Water System	Gallons Pumped	Gallons Sold	Water loss (%)
Garden City, PWS 07-037	2,848,000	1,933,000	32.13
Roseview, PWS 07-082	2,773,000	2,432,000	12.30
WPE #1, PWS N/A	600,000	256,000	57.33
WPE #6, PWS 07-733	1,997,000	1,560,000	21.88
Tufte, PWS 07-617	456,000	403,000	11.62
Buckeye Ranch, PWS 07-618	10,432,000	8,718,000	16.43
Dixie, PWS 07-030	4,047,000	3,860,000	4.62
Sunshine, PWS 07-071	17,153,000	16,396,000	4.41

Non-account water should be 10% or less and never more than 15%. It is important to be able to reconcile the difference between water sold and the water produced by the source. A water balance will allow a water company to identify water and revenue losses due to leakage, theft, and flushing.

Decision No. 71878 (September 15, 2010) requires the 10 Global water systems, to file a detailed plan demonstrating how the various systems will reduce their water loss to less than 10 percent. On December 14, 2010, Global Water filed a plan for reducing water loss to below 10 percent in the 10 Global Utilities' water systems, including six of the WUGT water systems:

1. Garden City, PWS 07-037
2. WPE #1, PWS N/A
3. WPE #6, PWS 07-733
4. Tufte, PWS 07-617
5. Buckeye Ranch, PWS 07-618
6. Dixie, PWS 07-030

Water loss for the above water systems (except Dixie) continued to exceed the recommended threshold of 10 percent in 2011, also water loss for the Roseview water system increased from approximately 8.30% in 2008 to 12.30% in 2011. Staff recommends that the Company file each May a report covering the previous calendar year (with the first report due in May 2014 to cover the year of 2013) that contains all work activities undertaken in accordance

with Decision No. 71878 regarding the Company's plan for reducing water loss below 10 percent. Staff further recommends that the written report continue until the water loss for all WUGT water systems is 10 percent or less for one full calendar year.

**D. GROWTH**

In July 2009, WUGT had 311 customers, and in December 2011, the Company had 324 customers. The customer base grew at approximately 1.7% per year from July 2009 to December 2011. The Company estimates that the customer base will grow at approximately 1 percent per year for the next 5 years.

Staff concludes that the WUGT has adequate production capacity and storage capacity to serve the existing customer base and reasonable growth.

**E. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY COMPLIANCE  
("ADEQ")**

**Compliance**

ADEQ or its formally delegated agent, the Maricopa County Environmental Services Department ("MCESD"), reported that the Valencia Greater Buckeye drinking water systems are currently delivering water that meets water quality standards required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141 National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4. (MCESD report dated April 1, 2013).

**Water Testing Expense**

The Company reported a total testing expense of \$5,108.40 during the test year, the Company provided invoices and other documents to support this amount. Staff has reviewed the information provided by the Company and recommends the Company's reported annual testing expense of \$5,108 (rounded) be used for purposes of this application.

**F. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR")  
COMPLIANCE**

WUGT is located in the Phoenix Active Management Area ("AMA") and is subject to ADWR AMA reporting and conservation requirements. ADWR reported that WUGT is currently in compliance with departmental requirements governing water providers and/or community water systems. (ADWR compliance status report dated March 13, 2013).



**G. ARIZONA CORPORATION COMMISSION (“ACC”) COMPLIANCE**

A check with the Utilities Division Compliance Section showed no delinquent compliance items for WUGT. (ACC Compliance Section Email dated May 17, 2013)

**H. DEPRECIATION RATES**

In the prior rate case, the Company adopted Staff’s typical and customary water depreciation rates. These rates are presented in Table B and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.

Table B. Depreciation Rates

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	3	33.33
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00

WATER UTILITY OF GREATER TONOPAH, INC.

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344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	----	----

NOTES:

1. These depreciation rates represent average expected rates. Water companies may experience different rates due to variations in construction, environment, or the physical and chemical characteristics of the water.
2. Acct. 348, Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.

**I. POST-TEST YEAR PLANT**

The Company submitted three post-test year plant additions for inclusion in rate base. These three post-test year project additions are as follows:

- |                                       | Construction Status (As April 11, 2013) |
|---------------------------------------|---|
| 1) WPE #6 Electrical Upgrades;        | Completed                               |
| 2) WPE #6 Improve fluoride treatment; | Completed                               |
| 3) WPE #6 Tank and Well Replacement   | Completed                               |

Staff has inspected and verified completion of the post-test year plant additions above. These three post-test year plant additions were in-service during Staff's inspection on April 11, 2013.

**J. OTHER ISSUES**

**1. Curtailment, Backflow Prevention and Best Management Practice ("BMP") Tariffs**

WUGT has approved Curtailment and Backflow Prevention tariffs on file with the ACC.

The Company also has three approved BMP tariffs on file with the Commission.

**2. Service Line and Meter Installation Charges**

The Company has not requested any changes in its service line and meter installation charges that were approved in its last rate application. Therefore, Staff recommends continued use of the Company's current meter and service line installation charges.

Water Utility of Greater Tonopah  
Docket No. W-02450A-12-0312 (Rates)

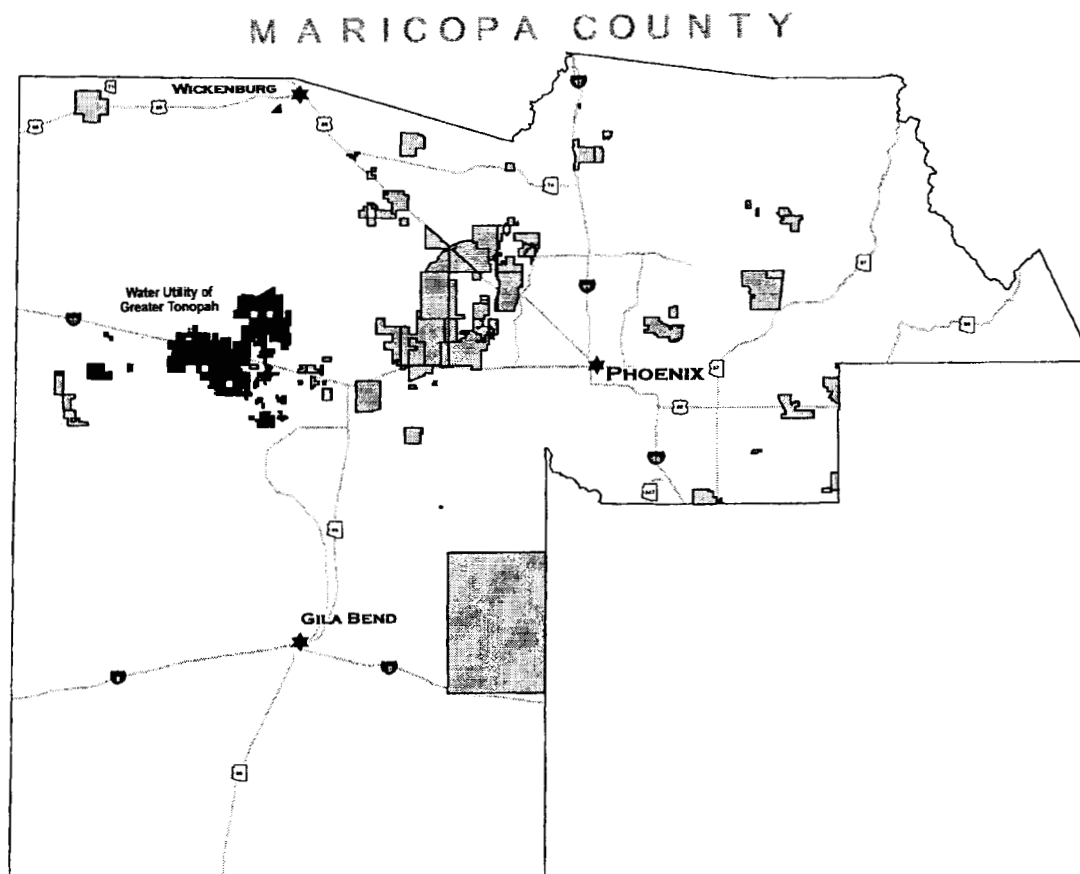


Figure 1. Maricopa County Map

Water Utility of Greater Tonopah  
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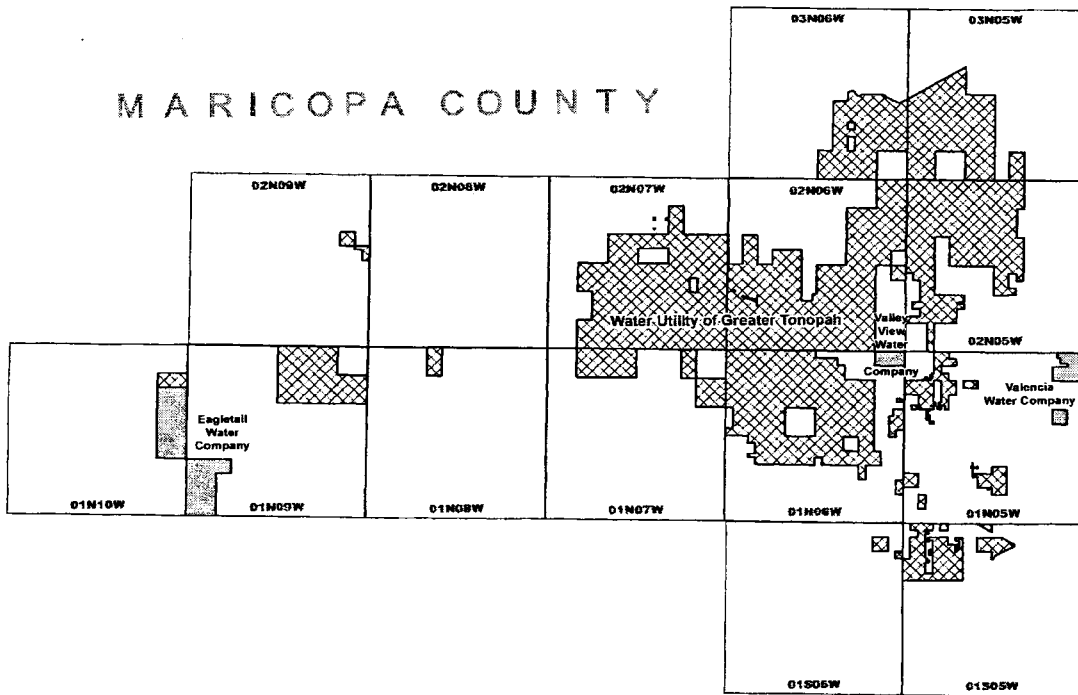


Figure 2. Certificated Areas

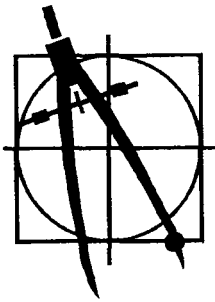
**EXHIBIT JW-4**

**ENGINEERING REPORT FOR VALENCIA WATER COMPANY –  
GREATER BUCKEYE DIVISION**

**DOCKET NO. W-02451A-12-0313 (RATES)**

**JIAN W LIU**

**May 28, 2013**



**Engineering Report for VALENCIA WATER  
COMPANY - GREATER BUCKEYE DIVISION**

**Docket No. W-02451A-12-0313 (Rates)**

**By: Jian Liu  
Utilities Engineer**

**May 28, 2013**

**CONCLUSIONS**

1. Arizona Department of Environmental Quality ("ADEQ") or its formally delegated agent, the Maricopa County Environmental Services Department ("MCESD"), reported that the Valencia Water Company - Greater Buckeye Division ("Valencia Greater Buckeye" or "Company") drinking water systems are currently delivering water that meets water quality standards required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141 National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4. (MCESD report dated April 1, 2013)
2. Valencia Greater Buckeye is located in the Phoenix Active Management Area ("AMA") and is subject to its AMA reporting and conservation requirements. Staff received an Arizona Department of Water Resources ("ADWR") compliance status report dated March 13, 2013. ADWR reported that Valencia Greater Buckeye is currently in compliance with departmental requirements governing water providers and/or community water systems.
3. A check with the Utilities Division Compliance Section showed no delinquent compliance items for Valencia Greater Buckeye. (ACC Compliance Section Email dated May 17, 2013)
4. Valencia Greater Buckeye has approved Curtailment Plan and Backflow Prevention Tariffs on file with the Commission.
5. Staff concludes that the Valencia Greater Buckeye has adequate production capacity and storage capacity to serve the existing customer base and reasonable growth.
6. Valencia Greater Buckeye has three approved Best Management Practice ("BMP") tariffs on file with the Commission.

## RECOMMENDATIONS

1. In the prior rate case, the Company adopted Staff's typical and customary water depreciation rates. These rates are presented in Table B and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.
2. Staff recommends the annual water testing expense of \$3,252 reported by the Company be used for purposes of this application.
3. Staff recommends that Company file each May a report covering the previous year (Start in May 2014 to cover the year of 2013) that contains all work activities undertaken in accordance with Decision No. 71878 regarding the plan for reducing water loss to below 10 percent. The written report should continue until Staff receives a report that the water loss for all Valencia Greater Buckeye water systems is 10 percent or less for one full year (12 months).
4. The Company reported that the Bulfer/Primrose water system (Public Water System ("PWS") 07-114) sold more water than it pumped in test year 2011. The quantity of water sold cannot exceed the quantity of water pumped for the same period of time which suggests that the water use data reported is invalid. Staff recommends that the Company monitor the Bulfer/Primrose water system and submit the gallons pumped and sold to determine the non-account water for one full year. The Company should coordinate when it reads the well meters each month with customer billing so that an accurate accounting is determined.
5. The Company has not requested any changes in its service line and meter installation charges that were approved in its last rate application. Therefore, Staff recommends continued use of the Company's current meter and service line installation charges.

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**A. LOCATION OF COMPANY**

Valencia Water Company - Greater Buckeye Division ("Valencia Greater Buckeye" or "Company") is located approximately 40 miles west of downtown Phoenix in Maricopa County with a certificated area covering approximately 4,300 acres. Figure 1 shows the location of Valencia Greater Buckeye within Maricopa County and Figure 2 shows the certificated area which consists of separate parcels in and around the Town of Buckeye.

**B. DESCRIPTION OF THE WATER SYSTEMS**

The plant facilities were visited on April 11, 2013, by Jian Liu, Staff Utilities Engineer, in the accompaniment of Ron Fleming, Harold Thomas, Larry Thomas and Joel Wade of the Company. The Company operates four independent water systems with brief descriptions as follows:

1. Sun Valley/Sweetwater I, Public Water System ("PWS") 07-195: This system consists of a well that pumps water into a 125,000 gallon storage tank, three booster pumps then pump the water to a 3,000 gallon pressure tank before delivery to customers through the distribution system. This system serves 393 active service connections.
2. Sweetwater II, PWS 07-129: This system is currently being operated as a consecutive water system to the City of Goodyear. This system serves 89 active service connections.
3. Bulfer/ Primrose, PWS 07-114: This system consists of a well (producing approximately 40 gpm) that pumps water into a 130,000 gallon storage tank, three booster pumps then pump the water to a 2,400 gallon pressure tank before delivery to customers through distribution system. This system serves 89 active service connections
4. Sonoran Ridge, PWS 07-732: This system consists of a well (producing approximately 150 gpm), one arsenic treatment system, a 250,000 gallon storage tank, 5,000 gallon pressure tank and distribution system. This system serves 56 active service connections.

Combined detailed plant facility listings are as follows:

Table 1. Well Data (active wells only)

Location/No.	ADWR ID #	Pump Hp	Pump GPM	Casing Size	Casing Depth (Feet)	Meter Size
Sun Valley/ Sweetwater I	55-800947	30	275	20"	747	6"
Bulfer/ Primrose	55-618513	5	40	8"	273	1 1/2"
Sonoran Ridge	55-572657	30	150	6"	700	4"

Sun Valley/ Sweetwater I, PWS 07-195

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
125,000	1	3,000	1	20	1
				25	2
Total 125,000					

Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
4	12,305	5/8x3/4	418	42
6	73,265	3/4	2	
8	13,825	1	7	
10	2,268			
		Total Metered Connections	427	

Bulfer/ Primrose, PWS 07-114

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
130,000	1	2,400	1	25	1
				10	2
Total 130,000					

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Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
4	1,321	5/8x3/4	83	10
6	563	1	8	
8	5,534			
Unknown	6,655			
		Total Metered Connections	91	

Sonoran Ridge, PWS 07-732

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
250,000	1	5,000	1	20	2
				30	1
Total 250,000					

Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
6	117	5/8x3/4	21	34
8	6,031	1	41	
10	4,468			
12	640			
16	91			
		Total Metered Connections	62	

Staff concludes that the Valencia Greater Buckeye has adequate production capacity and storage capacity to serve the existing customer base and reasonable growth.

**C. WATER USE**

**Water Sold**

Based on the information provided by the Company on its Water Use Data Sheets, water use for the year 2011 is presented below for each system.

Water Use, gallons per day (“GPD”) per connection

Water System Name	High	Low	Average
Sun Valley/Sweetwater I	368 in July	163 in Jan.	274
Bulfer/Primrose	410 in July	208 in Mar.	324
Sonoran Ridge	587 in Sept.	196 in Jan.	332
Sweetwater II	370 in May	195 in Jan.	304

**Non-Account Water**

For each water system, the Company reported the following gallons pumped and gallons sold in 2011, which Staff used to determine the water loss per system:

Table 2. Water Loss

Water System	Gallons Sold	Gallons Pumped	Water loss (%)
Sun Valley/Sweetwater I, PWS 07-195	38,736,000	43,166,000	10.26
Bulfer/Primrose, PWS 07-114	10,548,000	10,150,000	-3.92
Sonoran Ridge, PWS 07-732	6,825,000	8,369,000	18.45
Sweetwater II, PWS 07-129	9,982,000	11,612,000*	14.04

\*Note: Gallons Purchased.

Non-account water should be 10 percent or less and never more than 15 percent. It is important to be able to reconcile the difference between water sold and the water produced by the source. A water balance will allow a water company to identify water and revenue losses due to leakage, theft, and flushing.

Decision No. 71878 (September 15, 2010) requires the 10 Global water systems, to file a detailed plan demonstrating how the various systems will reduce their water loss to less than 10 percent. On December 14, 2010, Global Water filed a plan for reducing water loss to below 10 percent in the 10 Global Utilities’ water systems, including two of the Valencia Greater Buckeye water systems:

- PWS 07-195 Sun Valley/Sweetwater I
- PWS 07-129 Sweetwater II

Water loss for the above two water systems continued to exceed the Staff's recommended threshold of 10 percent in 2011, also water loss for the Sonoran Ridge water system jumped from approximately 9.30% in 2008 to 18.45% in 2011. Staff recommends that the Company file each May a report covering the previous calendar year (with the first report due in May 2014 to cover the year of 2013) that contains all work activities undertaken in accordance with Decision No. 71878 regarding the Company's plan for reducing water loss below 10 percent. Staff further recommends that the written report continue until the water loss for all Valencia Greater Buckeye water systems is 10 percent or less for one full calendar year.

The Bulfer/Primrose water system (PWS 07-114) more water sold than it pumped in 2011. This suggests that the water use data reported by the Company is invalid since the quantity of water sold to customers cannot exceed the quantity of water pumped at the source for the same period of time. Staff recommends that the Company monitor the Bulfer/Primrose water system and submit in its Annual Report filed with the Commission the gallons pumped and sold to determine the non-account water for one full year. The Company should coordinate when it reads the well meters each month with customer billing so that an accurate accounting is determined.

#### **D. GROWTH**

In July 2009, the Company had 600 customers, and in December 2011, the Company had 626 customers. The customer base grew at approximately 1.7% per year from July 2009 to December 2011. The Company estimates that the customer base will grow at approximately 1 percent per year for the next 5 years.

#### **E. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY COMPLIANCE ("ADEQ")**

##### **Compliance**

ADEQ or its formally delegated agent, the Maricopa County Environmental Services Department ("MCESD"), reported that the Valencia Greater Buckeye drinking water systems are currently delivering water that meets water quality standards required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141 National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4. (MCESD report dated April 1, 2013)

##### **Water Testing Expense**

The Company reported a total testing expense of \$3,251.93 during the test year, the Company provided invoices and other documents to support this amount. Staff has reviewed the

information provided by the Company and recommends the Company's reported annual testing expense of \$3,252 (rounded) be used for purposes of this application.

**F. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR") COMPLIANCE**

Valencia Greater Buckeye is located in the Phoenix Active Management Area ("AMA") and is subject to ADWR AMA reporting and conservation requirements. ADWR reported that Valencia Greater Buckeye is currently in compliance with departmental requirements governing water providers and/or community water systems. (ADWR compliance status report dated March 13, 2013).

**G. ARIZONA CORPORATION COMMISSION ("ACC") COMPLIANCE**

A check with the Utilities Division Compliance Section showed no delinquent compliance items for Valencia Greater Buckeye. (ACC Compliance Section Email dated May 17, 2013)

**H. DEPRECIATION RATES**

In the prior rate case, the Company adopted Staff's typical and customary water depreciation rates. These rates are presented in Table B and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.

Table B. Depreciation Rates

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		

330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	3	33.33
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	---	---

NOTES:

1. These depreciation rates represent average expected rates. Water companies may experience different rates due to variations in construction, environment, or the physical and chemical characteristics of the water.
2. Acct. 348, Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.

**I. OTHER ISSUES**

**1. Curtailment, Backflow Prevention and Best Management Practice ("BMP") Tariffs**

Valencia Greater Buckeye has approved Curtailment and Backflow Prevention tariffs on file with the ACC.

The Company also has three approved BMP tariffs on file with the Commission.

**2. Service Line and Meter Installation Charges**

The Company has not requested any changes in its service line and meter installation charges that were approved in its last rate application. Therefore, Staff recommends continued use of the Company's current meter and service line installation charges.

Valencia Water Company - Greater Buckeye Division  
Docket No. W-01212A-12-0313 (Rates)

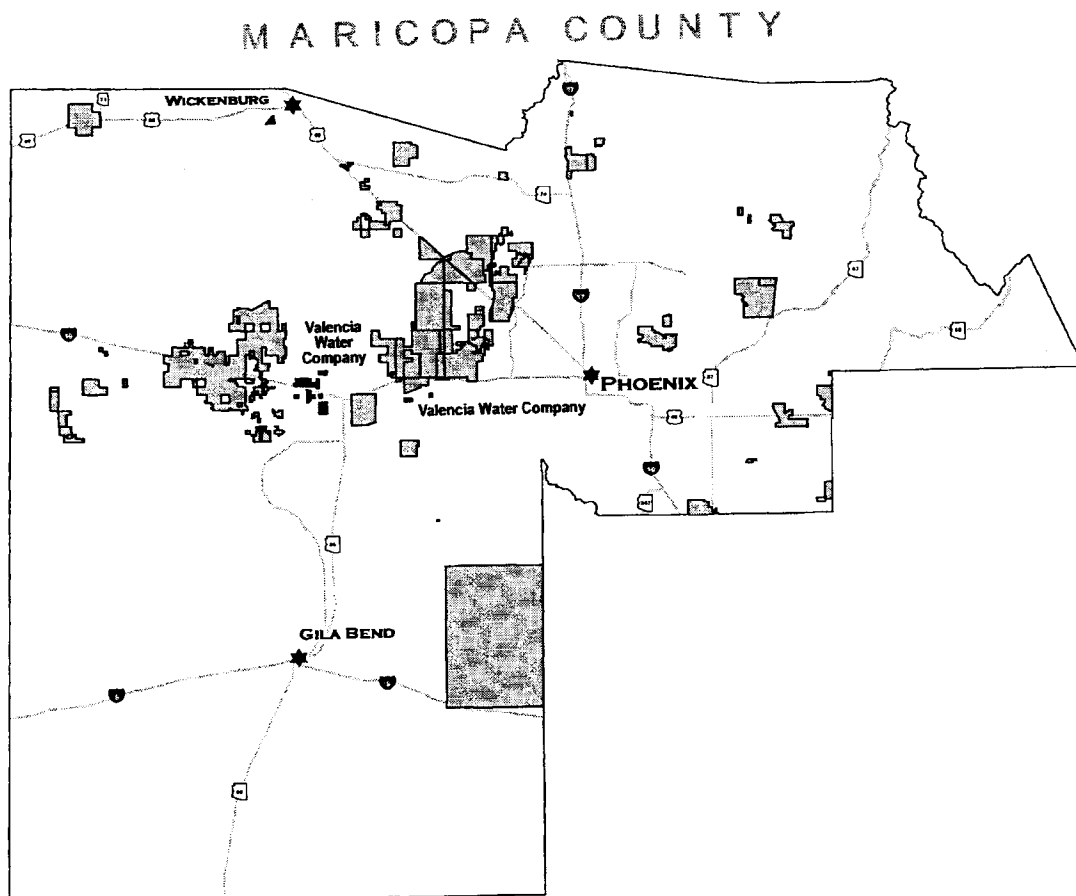


Figure 1. County Map



Valencia Water Company - Greater Buckeye Division  
Docket No. W-01212A-12-0313 (Rates)

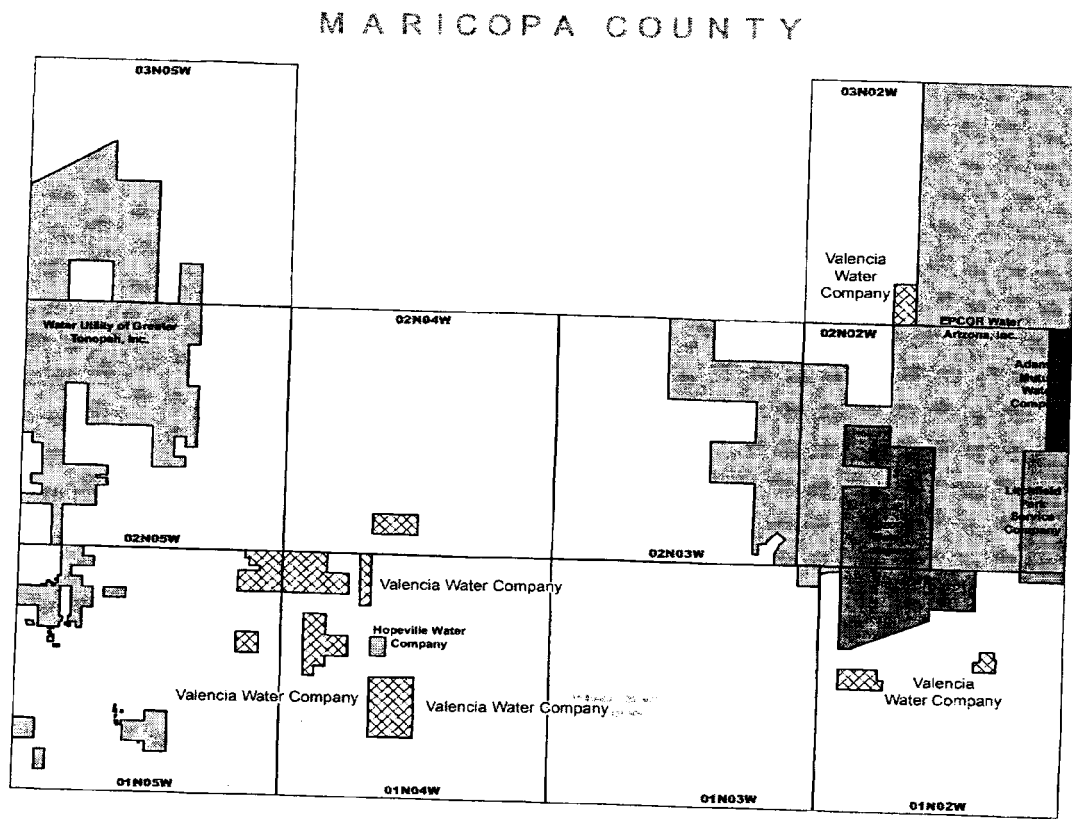


Figure 2. Certificated Areas

**EXHIBIT JW-5**

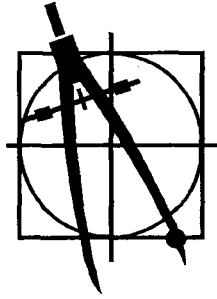
**ENGINEERING REPORT FOR**

**SANTA CRUZ WATER COMPANY**

**DOCKET NO. W-20446A-12-0314 (RATES)**

**JIAN W LIU**

**May 28, 2013**



**Engineering Report for:  
Santa Cruz Water Company for a Rate  
Increase  
Docket No. W-20446A-12-0314 (Rates)**

**By: Jian W Liu  
Utilities Engineer**

**May 28, 2013**

## **EXECUTIVE SUMMARY**

### **CONCLUSIONS:**

1. Arizona Department Of Environmental Quality ("ADEQ") regulates the Santa Cruz Water Company ("Santa Cruz" or "Company")'s Water System under ADEQ Public Water System ("PWS") #11-131. ADEQ reported that the Santa Cruz is currently delivering water that meets water quality standards required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141 National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4. (ADEQ report dated April 8, 2013).
2. Santa Cruz is located in the Pinal Active Management Area ("AMA") and is subject to its AMA reporting and conservation requirements. Staff received an Arizona Department of Water Resources ("ADWR") compliance status report dated March 13, 2013. ADWR reported that Santa Cruz is currently in compliance with departmental requirements governing water providers and/or community water systems.
3. Staff concludes that Santa Cruz has adequate production capacity and storage capacity to serve the existing customer base and reasonable growth.
4. A check with the Utilities Division Compliance Section showed no delinquent compliance items for Santa Cruz. (Compliance Section email dated March 14, 2013).
5. Staff has inspected and verified completion of the post-test year plant additions. These two post-test year plant additions were in-service during Staff inspection on April 19, 2013. (see Section L for details).
6. Santa Cruz has approved Curtailment Plan and Backflow Prevention Tariffs on file with the Commission.
7. Santa Cruz has ten approved Best Management Practice tariffs on file with the Commission.

## RECOMMENDATIONS

1. In the prior rate case, the Company adopted Staff's typical and customary water depreciation rates. These rates are presented in Table B and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.
2. Staff recommends the annual water testing expense of \$32,871 reported by the Company be used for purposes of this application.
3. The Company has not requested any changes in its service line and meter installation charges that were approved in its last rate application. Therefore, Staff recommends continued use of the Company's current meter and service line installation charges.
4. Staff recommends that within 90 days of a Decision in this matter the Company file with Docket Control, as a compliance item in this docket, a detailed plan demonstrating how the Company will reduce its water loss for Santa Cruz to less than 10 percent. If the Company finds that reduction of water loss to less than 10 percent is not cost-effective, the Company should submit, within 90 days of a Decision in this matter, a detailed cost analysis and explanation demonstrating why water loss reduction to less than 10 percent is not cost-effective.

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## FIGURES

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**A. LOCATION OF COMPANY**

Global Water - Santa Cruz Water Company (“Santa Cruz” or “Company”) is an Arizona public service corporation authorized to provide water service within portions of Pinal County, Arizona. Santa Cruz provided water service to approximately 16,000 active customers as of December 31, 2011. Figure 1 shows the location of Santa Cruz within Pinal County and Figure 2 shows the certificated area.

**B. DESCRIPTION OF THE WATER SYSTEM**

The plant facilities were visited on April 19, 2013, by Jian Liu, Staff Utilities Engineer, in the accompaniment of Ron Fleming, Patrick Giles, Sarah Mahler and Joel Wade of the Company.

The facility consists of 6 active wells with total pumping capacity of 11,315 gallon per minute (“GPM”) for potable water use, 4 active wells with total pumping capacity of 4,530 GPM for construction, golf course, irrigation, and lake water use purposes only, 5 storage tanks with total storage capacity of 6,500,000 gallons, hydro-pneumatic systems and a distribution system serving approximately 16,000 active connections. Staff concludes that the Santa Cruz has adequate production capacity and storage capacity to serve the existing customer base and reasonable growth.

*(Tabular Description of Water System)*

Well Data (active wells only)

ADWR ID No.	Pump HP	Pump GPM	Casing Depth(ft)	Casing Size(in)	Meter Size(in)	Year Drilled
55- 612737 Smith	100	1070	1000	20	8	1972
55- 617338 Vance	250	1965	300	20	10	1973
55- 621407 Neely West	250	1980	700	12	10	1955
55- 621406 Neely North	400	2000	1000	12	12	1955
55- 509941 Rancho Mirage Well#1	200	1500	1100	16	12	1985
55- 621410 Porter *	100	1000	400	20	10	1955
55- 801069 Cobblestone *	200	1280	600	12	10	1957
55- 624037 Glennwilde *	200	1650	1992	18	8	1965
55- 622132 Maricopa Meadows *	UNK	600	600	20	4	1976
55- 220627 Rancho Mirage Well#2	300	2800	990	20	12	2011
Total Production	-	11,315	-	-	-	-

Note: GPM = gallons per minute.

\* These wells are used for construction, golf course and common area irrigation, and lake water use purposes only

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
500,000	2				
1,500,000	2	10,000	5		
2,500,000	1			40	4
				50	5
				75	5
				150	5
<b>Total 6,500,000</b>				200	1

Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
2	518			
6	37,820	5/8x3/4	1,826	2,113
8	914,878	3/4	15,017	
10	1,540	1	84	
12	183,414	1.5	57	
16	182,991	2	154	
20	23,583	3	5	
24	14,640	4	2	
30	6771			
		<b>Total Metered Connections</b>	<b>17,145</b>	

**C. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY COMPLIANCE (“ADEQ”)**

ADEQ regulates the Company’s Water System under ADEQ Public Water System (“PWS”) #11-131. ADEQ reported that the Santa Cruz is currently delivering water that meets water quality standards required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141 National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4. (ADEQ report dated April 8, 2013).

**D. ARIZONA CORPORATION COMMISSION (“ACC”) COMPLIANCE**

A check with the Utilities Division Compliance Section showed no delinquent compliance items for the Company. (Compliance Section email dated March 14, 2013)

**E. ARIZONA DEPARTMENT OF WATER RESOURCES (“ADWR”) COMPLIANCE**

Santa Cruz is located in the Pinal Active Management Area (“AMA”) and is subject to its AMA reporting and conservation requirements. Staff received an ADWR compliance status report dated March 13, 2013. ADWR reported that Santa Cruz is currently in compliance with departmental requirements governing water providers and/or community water systems.

**F. WATER TESTING EXPENSES**

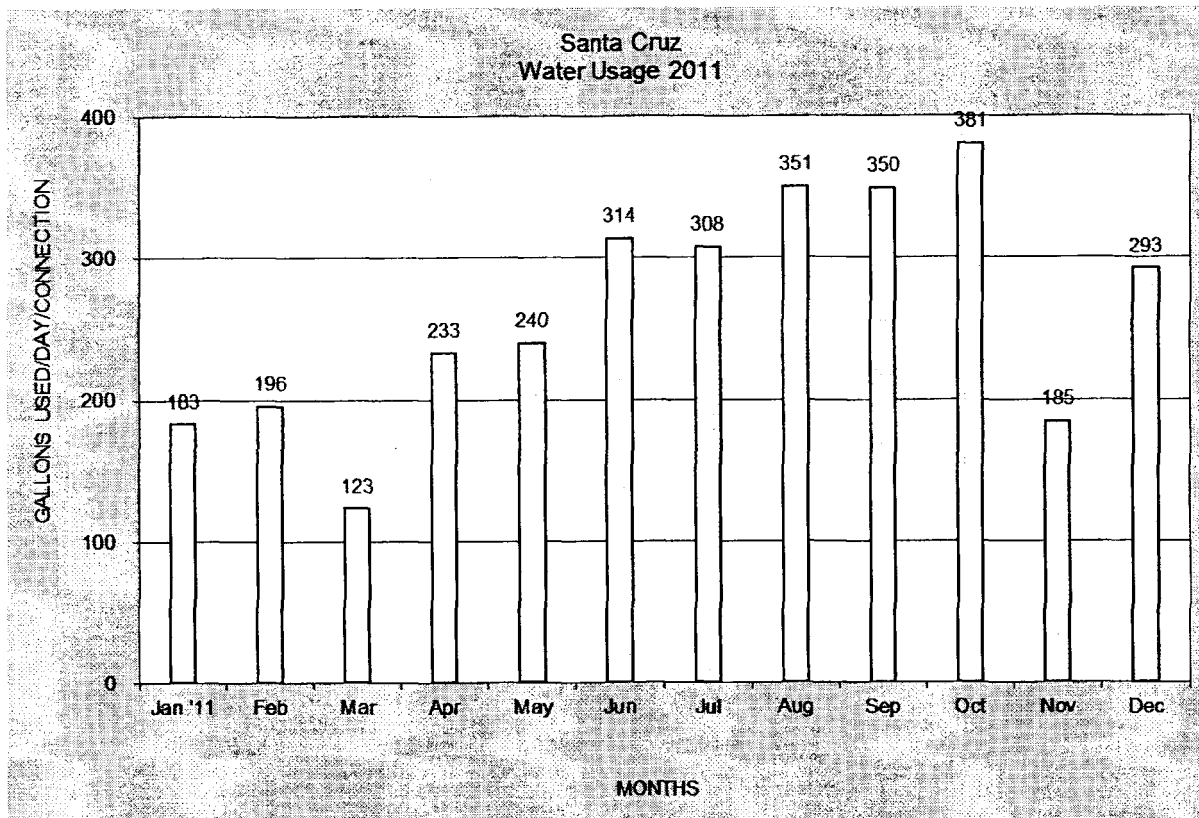
The Company reported a total testing expense of \$32,870.98 during the test year, the Company provided invoices and other documents to support this amount. Staff has reviewed the information provided by the Company and recommends the Company’s reported annual testing expense of \$32,871(rounded) be used for purposes of this application.

**G. WATER USE**

Water Sold

Based on the information provided by the Company, water use for the year 2011 is presented below. The high monthly domestic water use was 381 gal/day per service connection in October and the low monthly domestic water use was 123 gal/day per service connection in March. The average annual use was 263 gal/day per service connection.





#### Non-account Water

Non-account water should be 10% or less and never more than 15%. It is important to be able to reconcile the difference between water sold and the water produced by the source. A water balance will allow a water company to identify water and revenue losses due to leakage, theft, and flushing. The Company reported 1,740,941,000 gallons pumped and 1,526,802,000 gallons sold, resulting in a water loss of 12.30% for 2011 which exceeds Staff's recommended threshold of 10 percent.

Santa Cruz reported approximately 3% water loss in test year 2008. Since water loss jumped from 3% to 12% for Santa Cruz from year 2008 to 2011, Staff recommends that within 90 days of a Decision in this matter the Company file with Docket Control, as a compliance item in this docket, a detailed plan demonstrating how the Company will reduce its water loss for Santa Cruz to less than 10 percent. If the Company finds that reduction of water loss to less than 10 percent is not cost-effective, the Company should submit, within 90 days of a Decision in this matter, a detailed cost analysis and explanation demonstrating why water loss reduction to less than 10 percent is not cost-effective.

## **H. GROWTH**

In December 2007, Santa Cruz's customer base was 15,717 customers. In December 2011, the Company had 16,015 customers. The customer base grew at approximately 0.5% per year from year 2007 to 2011. The Company estimates that the customer base will grow at approximately 2% per year for the next 5 years.

## **I. DEPRECIATION RATES**

In the prior rate case, the Company adopted Staff's typical and customary water depreciation rates. These rates are presented in Table B and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.

Table B. Depreciation Rates

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	---	---

NOTES:

1. These depreciation rates represent average expected rates. Water companies may experience different rates due to variations in construction, environment, or the physical and chemical characteristics of the water.
2. Acct. 348, Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.

**J. CURTAILMENT PLAN AND BACKFLOW PREVENTION TARIFFS**

Santa Cruz has approved Curtailment Plan and Backflow Prevention Tariffs on file with the Commission.

Santa Cruz has ten approved Best Management Practice tariffs on file with the Commission.

**K. METER AND SERVICE LINE INSTALLATION CHARGES**

The Company has not requested any changes in its service line and meter installation charges that were approved in its last rate application. Therefore, Staff recommends continued use of the Company's current meter and service line installation charges.

**L. POST-TEST YEAR PLANT**

The Company submitted two post-test year plant additions for inclusion in rate base. These two post-test year project additions are as follows:

	Construction Status (As April 19, 2013)
1) Edison Road Waterline Extension;	Completed
2) Rancho El Dorado Water Distribution Campus Chlorination System Replacement;	Completed

Staff has inspected and verified completion of the post-test year plant additions 1) and 2) above. These two post-test year plant additions were in-service during Staff's inspection on April 19, 2013.

Global Water - Santa Cruz Water Company  
Docket No. W-20446A-12-0314

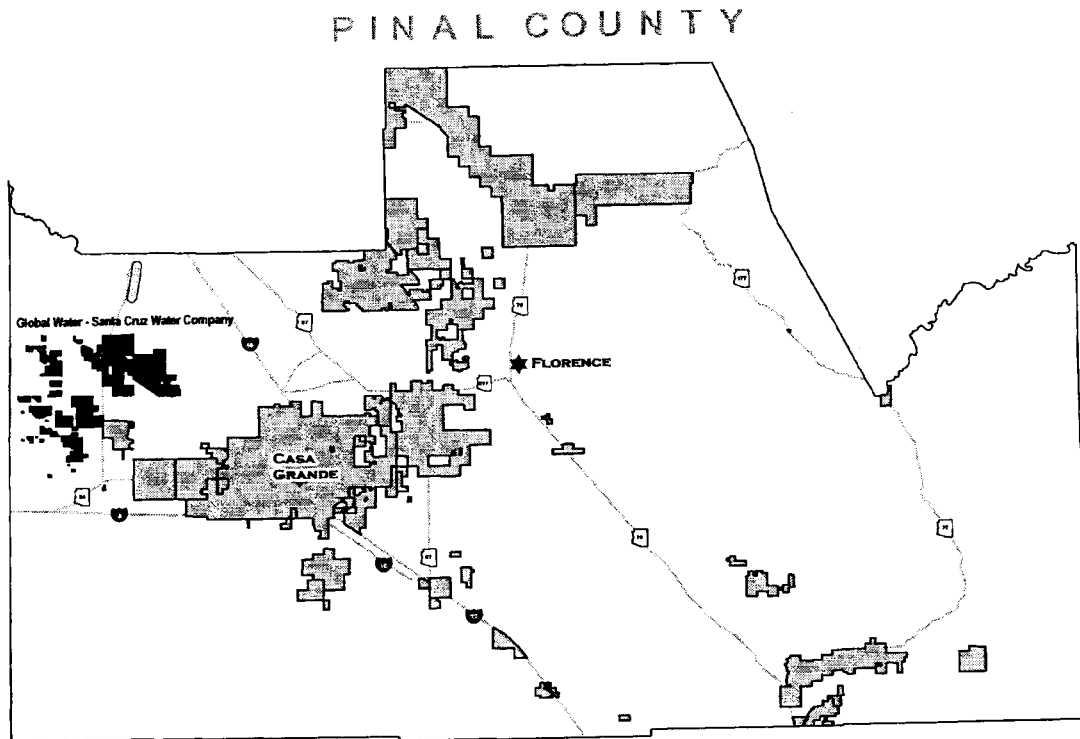


Figure 1. County Map

Global Water - Santa Cruz Water Company  
Docket No. W-20446A-12-0314

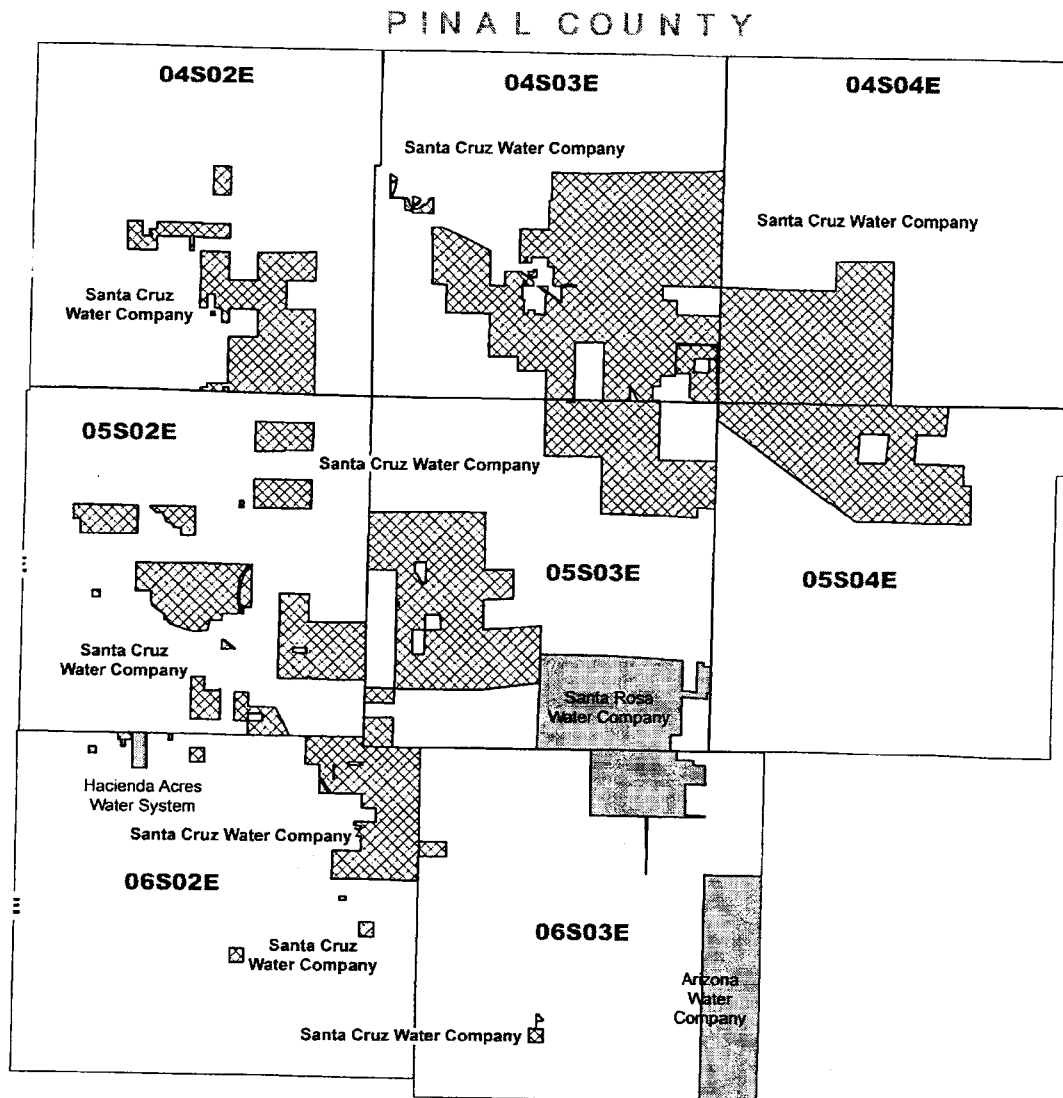


Figure 2. Certificated Area

**EXHIBIT JW-6**

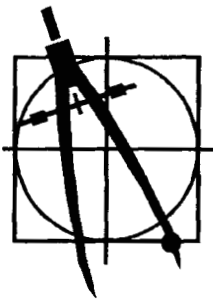
**ENGINEERING REPORT FOR**

**WILLOW VALLEY WATER CO., INC.**

**DOCKET NO. W-01732A-12-0315 (RATES)**

**JIAN W LIU**

**June 3, 2013**



**Engineering Report for WILLOW VALLEY  
WATER CO., INC.**

**Docket No. W-01732A-12-0315 (Rates)**

**By: Jian Liu  
Utilities Engineer**

**June 3, 2013**

**CONCLUSIONS**

1. Arizona Department of Environmental Quality (“ADEQ”) reported that the Willow Valley Water Co., Inc. (“Willow Valley” or the “Company”) drinking water systems are currently delivering water that meets water quality standards required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141 National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4. (ADEQ report dated April 8, 2013).
2. The Company is not located in any Active Management Area (“AMA”) and is not subject to any AMA reporting and conservation requirements. ADWR reported that Willow Valley is currently in compliance with departmental requirements governing water providers and/or community water systems. (ADWR compliance status report dated March 13, 2013).
3. A check with the Utilities Division Compliance Section showed no delinquent compliance items for Willow Valley. (ACC Compliance Section Email dated May 17, 2013).
4. Willow Valley has approved Curtailment Plan and Backflow Prevention Tariffs on file with the Commission.
5. The Company also has three approved Best Management Practice (“BMP”) tariffs on file with the Commission.
6. Staff concludes that Willow Valley has adequate production capacity and storage capacity to serve the existing customer base and reasonable growth.
7. Staff inspected the plant facilities on April 16, 2013. The post-test year plant addition was not in-service during Staff’s inspection. According to the Company project has been delayed and will not be completed until late 2013. (see Section I for details).



## RECOMMENDATIONS

1. In the prior rate case, the Company adopted Staff's typical and customary water depreciation rates. These rates are presented in Table B and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.
2. Staff recommends the annual water testing expense of \$15,708 (rounded) be used for purposes of this application.
3. Staff recommends that the Company file each May a report covering the previous calendar year (with the first report due in May 2014 to cover the year of 2013) that contains all work activities undertaken in accordance with Decision No. 71878 regarding the Company's plan for reducing water loss below 10 percent. Staff further recommends that the written report continue until the water loss for all Willow Valley water systems is 10 percent or less for one full calendar year.
4. The Company has not requested any changes in its service line and meter installation charges that were approved in its last rate application. Therefore, Staff recommends continued use of the Company's current meter and service line installation charges.

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**A. LOCATION OF COMPANY**

Willow Valley Water Co., Inc. ("Willow Valley" or the "Company") is an Arizona public service corporation authorized to provide water service within portions of Mohave County, Arizona. Willow Valley provides service to approximately 1,500 active connections. Figure 1 shows the location of Willow Valley within Mohave County and Figure 2 shows the certificated area.

**B. DESCRIPTION OF THE WATER SYSTEMS**

The plant facilities were visited on April 16, 2013, by Jian Liu, Staff Utilities Engineer, in the accompaniment of Joel Wade, and Justin Waters of the Company. The Company operates two independent water systems. Brief descriptions of the two systems are as follows:

1. King Street, Public Water System ("PWS") 08-040: This system consists of two wells producing a total of 800 gallons per minute ("gpm"), three storage tanks, eight booster pumps, three pressure tanks, Iron and Manganese removal systems and a distribution system. This system served 1,374 active connections at the end of 2011.
2. Lake Cimarron, PWS 08-129: This system consists of two wells, producing a total of 415 gpm, a storage tank, four booster pumps, a pressure tank and a distribution system. There is an Iron and Manganese removal system. This system served 128 active connections at the end of 2011.

Detailed plant facility listings are as follows:

King Street, PWS 08-040

Well Data (active wells only)

Location/No.	ADWR ID	Pump Hp	Pump GPM	Casing Size	Casing Depth (Feet)	Meter Size
Unit 17 - Secondary	55-603949	15	300	8"	100	4"
Unit 17 - Primary	55-208170	30	500	9"	120	6"
Total Production	-	-	800	-	-	-

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
163,000	1	14,000	1	15	6
47,000	1	5,200	1	30	1
96,000	1	2,200	1	40	1
Total 306,000					

Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
2	904	5/8x3/4	1,450	46
3	1,587	3/4	9	
4	68,093	1	15	
6	28,368	1.5	2	
8	4,220	2	2	
Unknown	122	4	2	
		6	2	
		Total Metered Connections	1,482	

Lake Cimarron, PWS 08-129

Well Data (active wells only)

Location/No.	ADWR ID #	Pump Hp	Pump GPM	Casing Size	Casing Depth (Feet)	Meter Size
Lake Cimarron Small	55-604161	10	225	6"	100	4"
Lake Cimarron Large	55-604160	7.5	190	12"	60	4"
Total Production	-	-	415	-	-	-

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
196,000	1	5,800	1	20	2
				25	2
Total 196,000					

Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
4	297	5/8x3/4	130	19
6	880	3/4	1	
8	11,866	2	1	
10	6,161	Total Metered Connections	132	

**C. WATER USE**

**Water Sold**

Based on the information provided by the Company in its Water Use Data Sheets, water use for the year 2011 is presented below for each system.

Water Use, gallons per day ("GPD") per connection

Water System Name	High	Low	Average
King Street, PWS 08-040	189 in Sept.	111 in Feb&Mar	136
Lake Cimarron, PWS 08-129	246 in Sept.	152 in Nov.	177

**Non-Account Water**

For each water system, the Company reported the following gallons pumped and gallons sold in 2011, which Staff used to determine the water loss per system:

Water Loss

Water System	Gallons Pumped	Gallons Sold	Water loss (%)
King Street, PWS 08-040	89,824,000	68,713,000	23.5
Lake Cimarron, PWS 08-129	10,806,000	8,300,000	23.19

Non-account water should be 10 percent or less and never more than 15 percent. It is important to be able to reconcile the difference between water sold and the water produced by the source. A water balance will allow a water company to identify water and revenue losses due to leakage, theft, and flushing.

Decision No. 71878 (September 15, 2010) requires the 10 Global water systems, to file a detailed plan demonstrating how the various systems will reduce their water loss to less than 10 percent. On December 14, 2010, Global Water filed a plan for reducing water loss to below 10 percent in the 10 Global Utilities' water systems, including the two Willow Valley water systems:

- King Street, PWS 08-040
- Lake Cimarron, PWS 08-129

Water loss for the above two water systems continued to exceed the Staff's recommended threshold of 10 percent in 2011. Staff recommends that the Company file each May a report covering the previous calendar year (with the first report due in May 2014 to cover the year of 2013) that contains all work activities undertaken in accordance with Decision No. 71878 regarding the Company's plan for reducing water loss below 10 percent. Staff further recommends that the written report continue until the water loss for all Willow Valley water systems is 10 percent or less for one full calendar year.

#### **D. GROWTH**

In July 2009, the Company had 1,528 customers, and in December 2011, the Company had 1,502 customers. Willow Valley lost 26 customers from July 2009 to December 2011. The Company estimates that the customer base will remain the same (with little or no growth) for the next 5 years.

Staff concludes that the Willow Valley has adequate production capacity and storage capacity to serve the existing customer base and reasonable growth.

#### **E. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY COMPLIANCE ("ADEQ")**

##### **Compliance**

ADEQ reported that the Willow Valley drinking water systems are currently delivering water that meets water quality standards required by 40 C.F.R. 141 (Title 40 Code of Federal Regulations Part 141 National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4. (ADEQ report dated April 8, 2013).

##### **Water Testing Expense**

Willow Valley reported a total testing expense of \$20,992.93 during the test year, the Company provided invoices and other documents to support this amount.

Willow Valley reported the following annual water testing expense for last 4 years (rounded):

Year 2009 - \$16,874  
Year 2010 - \$11,252  
Year 2011 - \$20,993  
Year 2012 - \$13,712

Therefore, average annual water testing expense from 2009 to 2012 is \$15,707.75. Staff reviewed these expenses and supporting documentation provided by the Company. Staff recommends the annual water testing expense of \$15,708 (rounded) be used for purposes of this application.

**F. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR") COMPLIANCE**

The Company is not located in any Active Management Area ("AMA") and is not subject to any ADWR AMA reporting and conservation requirements. ADWR reported that Willow Valley is currently in compliance with departmental requirements governing water providers and/or community water systems. (ADWR compliance status report dated March 13, 2013).

**G. ARIZONA CORPORATION COMMISSION ("ACC") COMPLIANCE**

A check with the ACC Utilities Division Compliance Section showed no delinquent compliance items for the Company. (ACC Compliance Section Email dated May 17, 2013).

**H. DEPRECIATION RATES**

In the prior rate case, the Company adopted Staff's typical and customary water depreciation rates. These rates are presented in Table B and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.



Table B. Depreciation Rates

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	3	33.33
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	---	---

NOTES:

1. These depreciation rates represent average expected rates. Water companies may experience different rates due to variations in construction, environment, or the physical and chemical characteristics of the water.
2. Acct. 348, Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.

**I. POST-TEST YEAR PLANT**

The Company submitted one post-test year plant addition for inclusion in rate base, the West Valley Region Supervisory Control and Data Acquisition ("SCADA") system for Willow Valley Water Company.

Staff inspected the plant facilities on April 16, 2013. This post-test year plant addition was not in-service during Staff's inspection. According to the Company its SCATA project has been delayed and will not be completed until late 2013.

**J. OTHER ISSUES**

**1. Curtailment, Backflow Prevention and Best Management Practice ("BMP") Tariffs**

Willow Valley has approved Curtailment and Backflow Prevention tariffs on file with the ACC.

The Company also has three approved BMP tariffs on file with the Commission.

**2. Service Line and Meter Installation Charges**

The Company has not requested any changes in its service line and meter installation charges that were approved in its last rate application. Therefore, Staff recommends continued use of the Company's current meter and service line installation charges.

Willow Valley Water Co., Inc.  
Docket No. W-01732A-12-0315 (Rates)

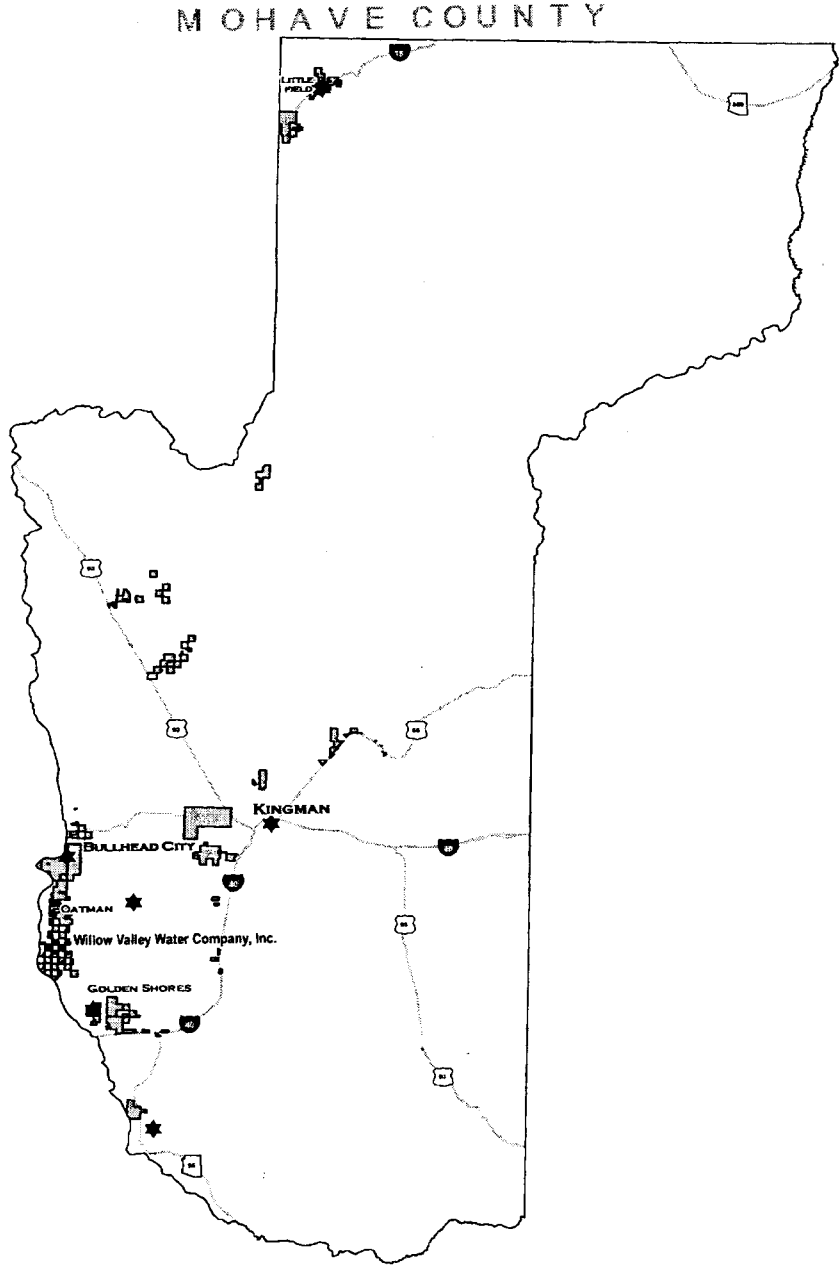


Figure 1. County Map

Willow Valley Water Co., Inc.  
Docket No. W-01732A-12-0315 (Rates)

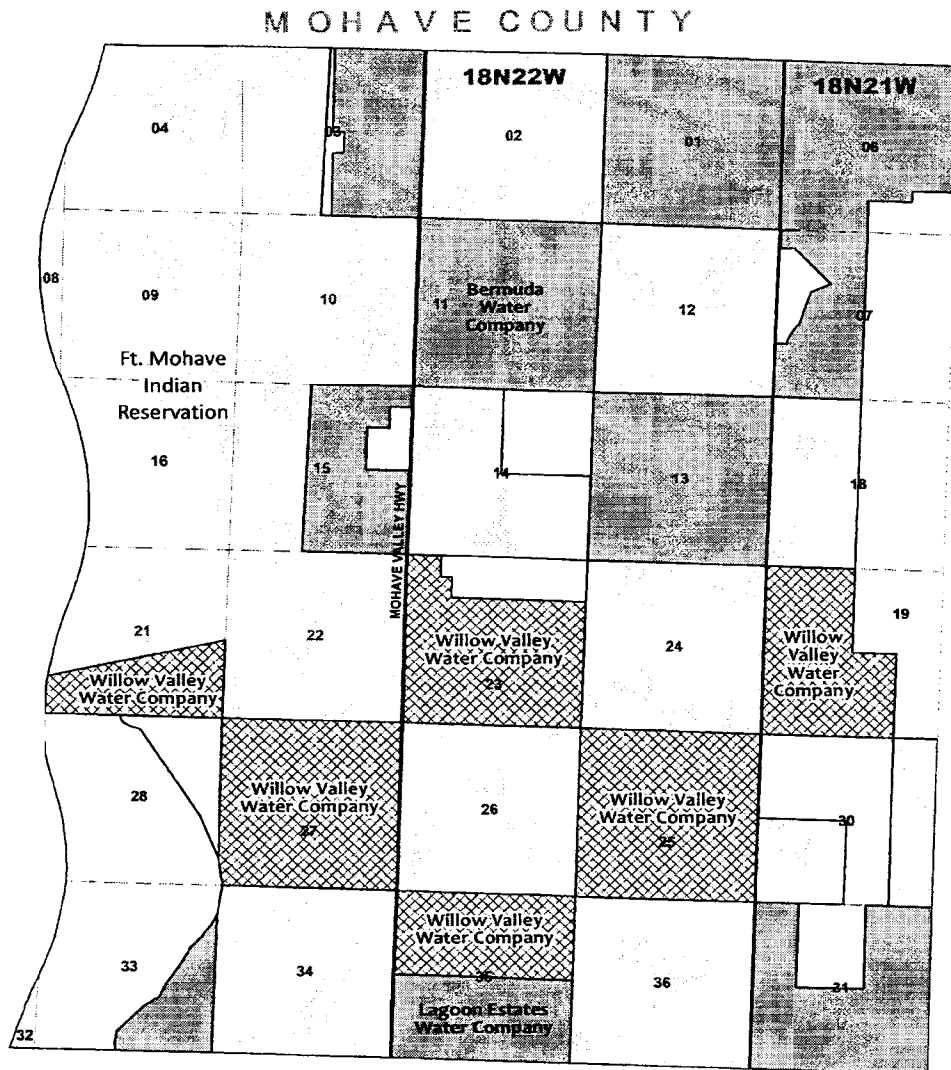


Figure 2. Certificated Areas

**EXHIBIT JW-7**

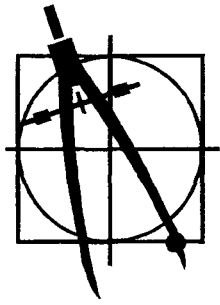
**ENGINEERING REPORT FOR**

**GLOBAL WATER-PALO VERDE UTILITIES COMPANY**

**DOCKET NO. SW-20445A-12-0310 (RATES)**

**JIAN W LIU**

**June 18, 2013**



**Engineering Report  
For Global Water-Palo Verde Utilities  
Company  
Docket No. SW-20445A-12-0310  
(Rate Increase Application)**

**By Jian W Liu**

**June 18, 2013**

**EXECUTIVE SUMMARY**

**CONCLUSIONS:**

1. Arizona Department of Environmental Quality ("ADEQ") regulates the Global Water-Palo Verde Utilities Company ("Palo Verde" or "Company") under Permit No. 49076. Per an April 16, 2013, Compliance Status Report issued by ADEQ, during the period of January 1st, 2012 through December 31st, 2012, there were more than 200 times when daily exceedance for turbidity occurred, other violations were also reported by ADEQ.
2. A check with the Utilities Division Compliance Section showed no delinquent compliance items for Palo Verde.
3. All of the post-test year plant additions except West Lagoon Clean Closure were in-service during Staff's inspection. (See Section 1 for more details).
4. Staff concludes that Palo Verde has adequate treatment capacity to serve the existing customer base and reasonable growth.

**RECOMMENDATIONS:**

1. In the prior rate case, the Company adopted Staff's typical and customary depreciation rates. These rates are presented in Table G-1 and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.
2. Staff recommends the annual testing expense of \$40,577 reported by the Company be used for purposes of this application.
3. Staff recommends that any increase in rates and charges approved in this proceeding not become effective until the first day of the month following the Company's filing of an updated ADEQ Compliance Status Report indicating that the Company is in compliance with ADEQ requirements.

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ADEQ COMPLIANCE STATUS REPORT .....	1
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**A. LOCATION OF COMPANY**

Global Water-Palo Verde Utilities Company (“Palo Verde” or “Company”) is an Arizona public service corporation authorized to provide wastewater service within portions of Pinal County, Arizona. Palo Verde provided wastewater service to approximately 15,800 active customers as of December 31, 2011. Figure 1 shows the location of Palo Verde within Pinal County and Figure 2 shows the certificated area.

**B. DESCRIPTION OF THE WASTEWATER SYSTEM**

Palo Verde owns and operates an enclosed three million gallon per day (“MGD”) sequential batch reactor (“SBR”) treatment plant, sand filters, ultra violet disinfection units and an effluent reuse and surface water disposal system to serve its customers.

The plant facilities were visited on April 19, 2013, by Jian Liu, Staff Utilities Engineer, in the accompaniment of Ron Fleming, Patrick Giles, Sarah Mahler and Joel Wade of the Company.

Lift Stations

Location	Quantity of Pumps	Horsepower per Pump	Capacity per Pump (GPM)	Wet Well Capacity (gals.)
Rancho El Dorado	1	15	1,100	23,095
Rancho El Dorado	2	20	1,000	328,000
Cobblestone	2	18	1,200	8,900
McDavid	2	70	650	15,000
Maricopa Groves	2	40	750	24,600
Alterra	2	15	690	13,200
Tortosa	2	5	300	10,300
PVWR Influent	2	100	5,000	328,000

Mains

Name	Length (Feet)	Length (Miles)
Force Mains	57,132	10.82
Reclaimed Water Mains	156,589	29.66
Collection Mains	1,043,778	197.69



Manholes

Type	Quantity
Standard	3,547

Service Laterals

Diameter	Length (Feet)
4-inch	21,669
Unknown	3
Total:	21,672

**C. WASTEWATER FLOW**

Based on the information provided by the Company, wastewater flow for the year 2011 is presented in Figure 3. For the average daily flows, January and February 2011 experienced the highest flow of 146 gallons per day ("GPD") per connection, and July 2011 experienced the lowest flow of 121 GPD per connection. The average annual wastewater flow was 133 GPD per connection.

For the peak day flows, January 2011 experienced the highest flow of 167 GPD per connection, and July 2011 experienced the lowest flow of 132 GPD per connection.

**D. GROWTH**

In July 2009, the Company had 14,997 customers. In December 2011, the Company had 15,831 customers. The customer base grew at approximately 2.22% per year from July 2009 to December 2011. The Company estimates that the customer base will grow at approximately 2% per year for the next 5 years.

Staff concludes that Palo Verde has adequate treatment capacity to serve the existing customer base and reasonable growth.

**E. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY ("ADEQ") COMPLIANCE**

ADEQ regulates the Palo Verde wastewater treatment plant under Permit No. 49076. Per an April 16, 2013 Compliance Status Report issued by ADEQ, during the period of January 1<sup>st</sup>, 2012 through December 31<sup>st</sup>, 2012, there were more than 200 times when daily exceedance for

turbidity occurred, other violations were also reported by ADEQ. Please see Attachment 1: ADEQ Compliance Status Report for more details.

Staff recommends that any increase in rates and charges approved in this proceeding not become effective until the first day of the month following the Company's filing of an updated ADEQ Compliance Status Report indicating that the Company is in compliance with ADEQ requirements.

**F. ARIZONA CORPORATION COMMISSION ("ACC") COMPLIANCE**

A check with the Utilities Division Compliance Section showed no delinquent compliance items. (ACC Compliance Section Email dated March 12, 2013).

**G. DEPRECIATION RATES**

In the prior rate case, the Company adopted Staff's typical and customary depreciation rates. These rates are presented in Table G-1 and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.

**Table G-1. Wastewater Depreciation Rates**

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
354	Structures & Improvements	30	3.33
355	Power Generation Equipment	20	5.00
360	Collection Sewers – Force	50	2.0
361	Collection Sewers- Gravity	50	2.0
362	Special Collecting Structures	50	2.0
363	Services to Customers	50	2.0
364	Flow Measuring Devices	10	10.0
365	Flow Measuring Installations	10	10.00
366	Reuse Services	50	2.00
367	Reuse Meters & Meter Installations	12	8.33
370	Receiving Wells	30	3.33
371	Pumping Equipment	8	12.50
374	Reuse Distribution Reservoirs	40	2.50
375	Reuse Transmission & Distribution System	40	2.50
380	Treatment & Disposal Equipment	20	5.0
381	Plant Sewers	20	5.0
382	Outfall Sewer Lines	30	3.33
389	Other Plant & Miscellaneous Equipment	15	6.67
390	Office Furniture & Equipment	15	6.67
390.1	Computers & Software	5	20.0
391	Transportation Equipment	5	20.0
392	Stores Equipment	25	4.0
393	Tools, Shop & Garage Equipment	20	5.0
394	Laboratory Equipment	10	10.0
395	Power Operated Equipment	20	5.0
396	Communication Equipment	10	10.0
397	Miscellaneous Equipment	10	10.0
398	Other Tangible Plant	----	----

NOTE: Acct. 398, Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.

**H. Palo Verde Utilities Company Testing Expenses**

The Company reported a total testing expense of \$40,576.80 during the test year, the Company provided invoices and other documents to support this amount. Staff has reviewed the information provided by the Company and recommends the Company's reported annual testing expense of \$40,577 (rounded) be used for purposes of this application.

**I. POST-TEST YEAR PLANT**

The Company submitted eight post-test year plant additions for inclusion in rate base. These eight post-test year project additions are as follows:

	Construction Status (As April 19, 2013)
1) Campus I Water Reclamation Facility - - Phase 3 Expansion	Completed
2) Pipe Odor Control	Completed
3) West Lagoon Clean Closure and Conversion	Ready to serve
4) PEQB	Completed
5) SWR Manhole Rehabilitation and LS Improvement - - Phase I	Completed
6) Water Reclamation Facility Headworks Rehab	Completed
7) Sewer Manhole Rehab	Completed
8) Edison Road Sewer Line Extension	Completed

Staff has inspected and verified completion of the post-test year plant additions above. According to the Company the West Lagoon (as listed item 3) above) has been cleaned of all solids and is ready to be operational as a recycled water holding facility. This Lagoon was completely empty not being used during Staff's inspection on April 19, 2013.

All of the post-test year plant additions listed above were in-service during Staff's inspection except item 3).

Global Water - Palo Verde Utilities Company  
Docket No. SW-20445A-12-0310

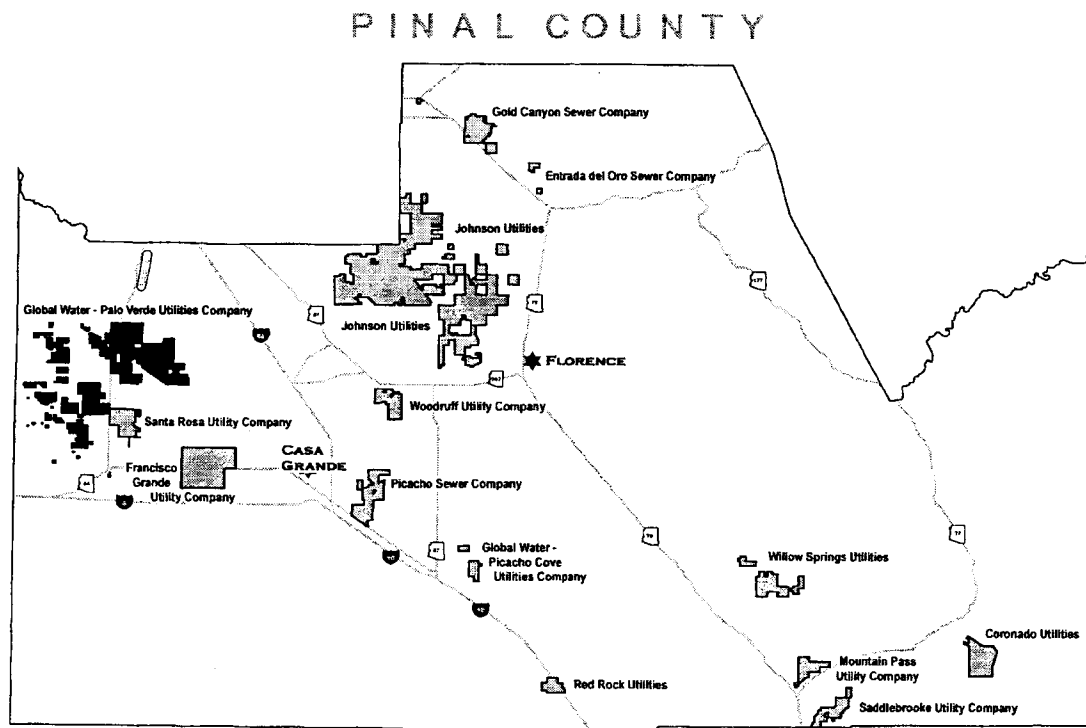
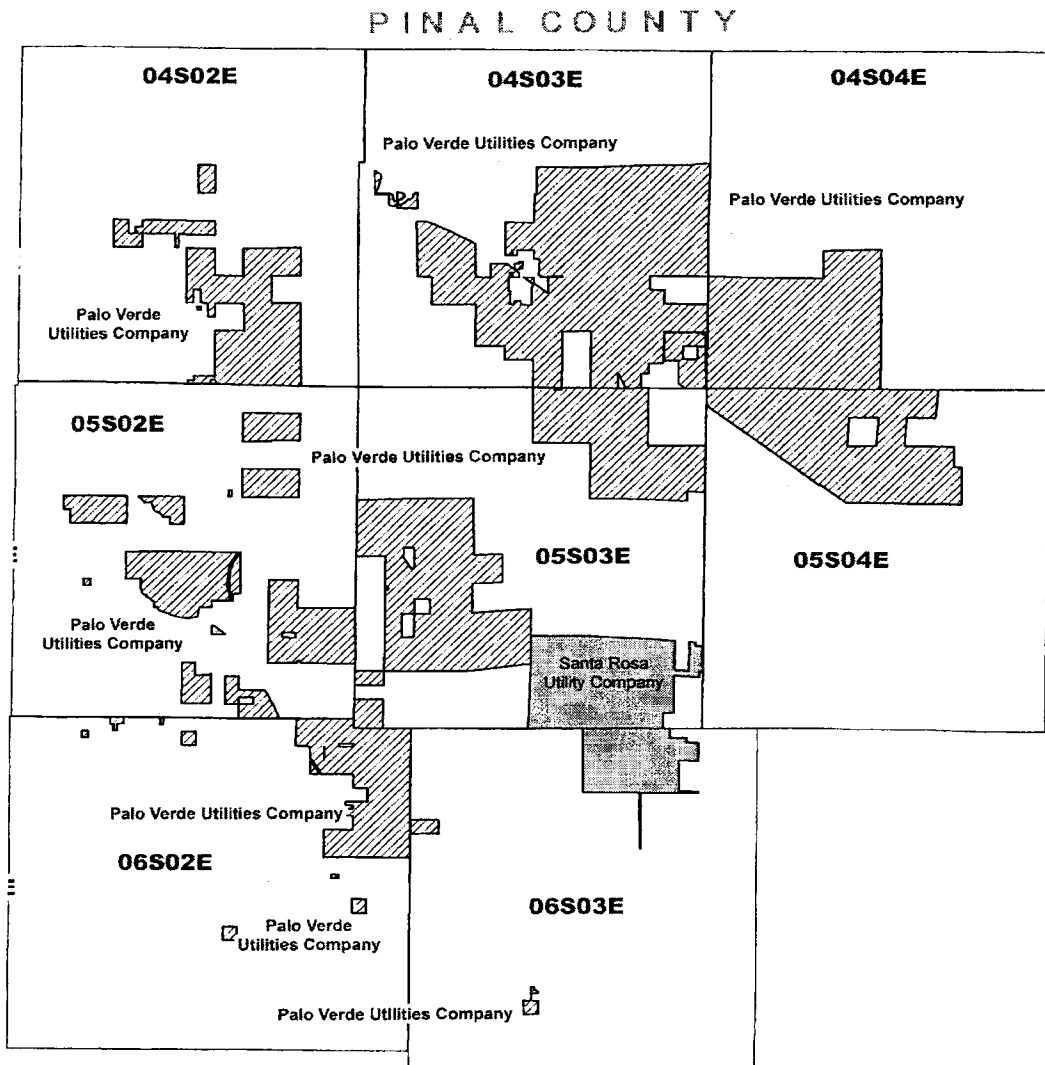


FIGURE 1 COUNTY MAP

Global Water - Palo Verde Utilities Company  
Docket No. SW-20445A-12-0310



**Figure 2 CERTIFICATED AREA**

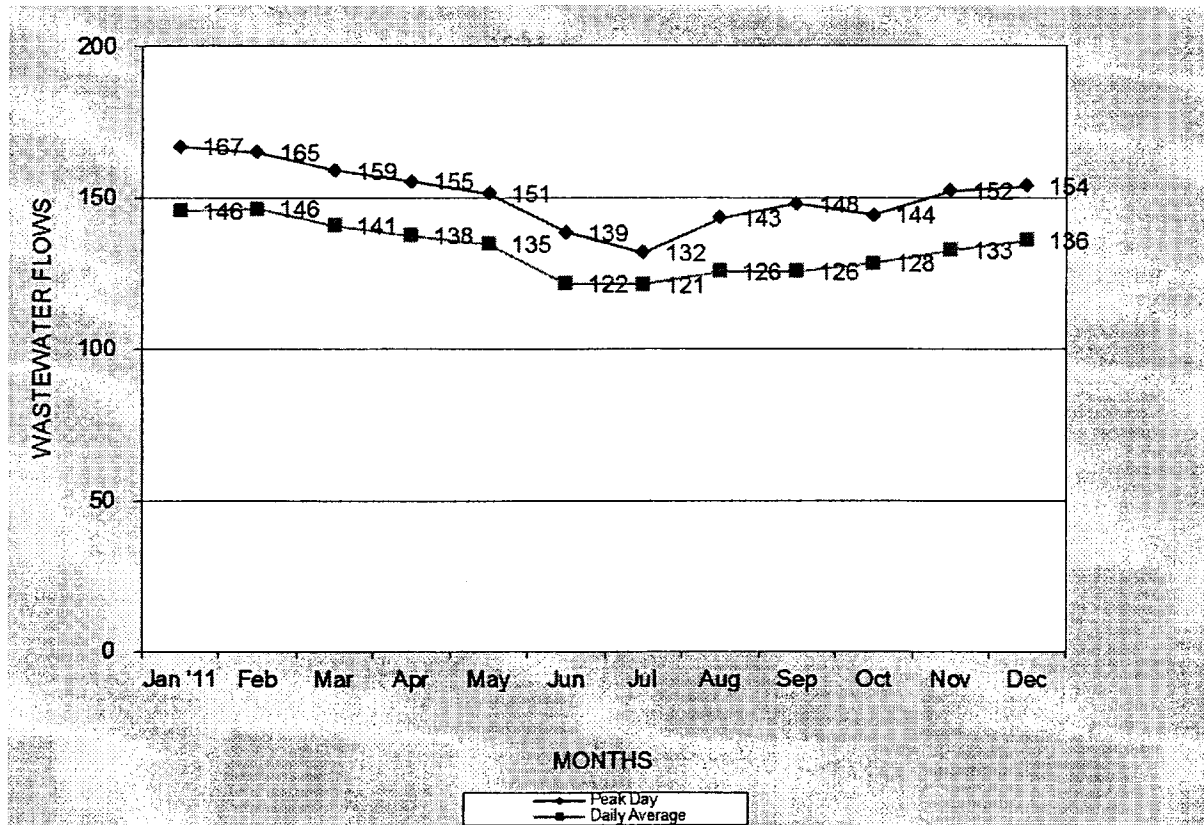


FIGURE 3 WASTEWATER FLOW

**ATTACHMENT 1**

**ADEQ Compliance Status Report**





Janice K. Brewer  
Governor

ARIZONA DEPARTMENT  
OF  
ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • www.azdeq.gov



Henry R. Darwin  
Director

April 16, 2013

Arizona Corporation Commission  
Mr. Jian Liu, Utilities Engineer  
1200 W. Washington  
Phoenix, Arizona 85007

RE: Compliance Status for Palo Verde Utilities WRF, Inventory number 105228,  
Place ID 5048, Permit number 49076 and 46128.

Dear Mr. Liu,

Your request for an evaluation of the compliance status for the above facility is completed. Our records indicate that above facility has Aquifer Protection Permit (APP) number 49076 and AZPDES permit number 46128 issued on 03/02/2010 and 2/24/2009 respectively.

Review of the APP reporting requirements and self-monitoring results that have been submitted for the period of 1/1/2012 through 12/31/2012 indicate there are monitoring or reporting violations during the period as follows.

1. Eighty one daily exceedance for turbidity - class A, at monitoring point 112749 during the 3<sup>rd</sup> quarter 2012.
2. Twenty six daily exceedance for turbidity - class A, at monitoring point 112749 during the 4<sup>th</sup> quarter 2012.
3. Ninety two daily exceedance for daily average turbidity – class A, at monitoring point 112749 during the 3<sup>rd</sup> quarter 2012.
4. Thirty daily exceedance for daily average turbidity – class A, at monitoring point 112749 during the 4<sup>th</sup> quarter 2012.
5. Nine daily exceedance for e-coli at effluent pump station, at monitoring point 112746 during the 3<sup>rd</sup> quarter 2012.
6. Nine daily exceedance for e-coli at effluent pump station, at monitoring point 112749 during the 3<sup>rd</sup> quarter 2012.

Review of the AZPDES reporting requirements and self-monitoring results that have been submitted for the period of 1/1/2012 through 1/31/2013 indicate there are monitoring or reporting violations during the period as follows.

1. Single concentration average exceedance for total cyanide for month of January 2012, once every two weeks frequency at monitoring point 125014.

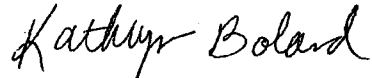
Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733

Printed on recycled paper

2. Single concentration maximum exceedance for e-coli for month of April 2012, four times a month frequency at monitoring point 125014.
3. Single concentration average exceedance for e-coli for month of April 2012, four times a month frequency at monitoring point 125014
4. Single concentration maximum exceedance for total cyanide for month of January 2013, once every two weeks at monitoring point 125014.

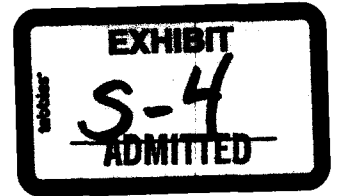
It should be understood that the compliance status of a facility may change from time to time based upon monitoring results or a facility inspection. This compliance review is based on the most current information available at the time the review was completed.

Sincerely,



Kathryn Boland, Manager, Data Unit  
Water Quality Compliance Section  
Office: 602-771-4513 Fax: 602-771-4505  
[boland.kathryn@azdeq.gov](mailto:boland.kathryn@azdeq.gov)

cc: Ron Fleming  
Susan Armijo  
Facility file



BEFORE THE ARIZONA CORPORATION COMMISSION

BOB STUMP  
Chairman  
GARY PIERCE  
Commissioner  
BRENDA BURNS  
Commissioner  
BOB BURNS  
Commissioner  
SUSAN BITTER SMITH  
Commissioner

IN THE MATTER OF THE APPLICATION OF VALENCIA WATER COMPANY – TOWN DIVISION FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-01212A-12-0309

IN THE MATTER OF THE APPLICATION OF GLOBAL WATER – PALO VERDE UTILITIES COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. SW-20445A-12-0310

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF NORTHERN SCOTTSDALE, INC. FOR APPROVAL OF A RATE INCREASE.

DOCKET NO. W-03720A-12-0311

IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH, INC. FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-02450A-12-0312

IN THE MATTER OF THE APPLICATION OF  
VALENCIA WATER COMPANY – GREATER  
BUCKEYE DIVISION FOR THE  
ESTABLISHMENT OF JUST AND  
REASONABLE RATES AND CHARGES FOR  
UTILITY SERVICE DESIGNED TO REALIZE A  
REASONABLE RATE OF RETURN ON THE  
FAIR VALUE OF ITS PROPERTY  
THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-02451A-12-0313

IN THE MATTER OF THE APPLICATION OF  
GLOBAL WATER – SANTA CRUZ WATER  
COMPANY FOR THE ESTABLISHMENT OF  
JUST AND REASONABLE RATES AND  
CHARGES FOR UTILITY SERVICE DESIGNED  
TO REALIZE A REASONABLE RATE OF  
RETURN ON THE FAIR VALUE OF ITS  
PROPERTY THROUGHOUT THE STATE OF  
ARIZONA.

DOCKET NO. W-20446A-12-0314

IN THE MATTER OF THE APPLICATION OF  
WILLOW VALLEY WATER COMPANY FOR  
THE ESTABLISHMENT OF JUST AND  
REASONABLE RATES AND CHARGES FOR  
UTILITY SERVICE DESIGNED TO REALIZE A  
REASONABLE RATE OF RETURN ON THE  
FAIR VALUE OF ITS PROPERTY  
THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-01732A-12-0315

DIRECT  
TESTIMONY  
OF  
JOHN A. CASSIDY  
PUBLIC UTILITIES ANALYST  
UTILITIES DIVISION  
ARIZONA CORPORATION COMMISSION  
JULY 8, 2013

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**EXECUTIVE SUMMARY**  
**VALENCIA WATER COMPANY-TOWN DIVISION, ET AL**  
**DOCKET NO. W-01212A-12-0309, ET AL**

The direct testimony of Staff witness John A. Cassidy addresses the following issues:

Capital Structure – Staff recommends that the Commission adopt a consolidated capital structure for the Global Utilities (“Global Parent Utilities” or “Companies”) for this proceeding consisting of 57.8 percent debt and 42.2 percent equity.

Cost of Equity – Staff recommends that the Commission adopt a 9.4 percent return on equity (“ROE”) for the Companies. Staff’s estimated ROE for the Companies is based on an economic assessment adjustment and the results of its DCF and CAPM cost of equity methodology estimates for the sample companies of 8.9 percent for the capital asset pricing model (“CAPM”) and 8.6 percent for the discounted cash flow method (“DCF”).

Cost of Debt – Staff recommends that the Commission adopt a 6.1 percent cost of debt for the Companies.

Overall Fair Value Rate of Return – Staff recommends that the Commission adopt a 7.5 percent overall fair value rate of return.

Mr. Rowell’s Testimony – The Commission should reject the Companies’ proposed 11.44 percent ROE for the following reasons:

Mr. Rowell’s methodology erroneously assumes that accounting based realized returns on equity (“ROE”) are reflective of investor expectations of the cost of equity, and he assigns a two-thirds weighting to the results derived from his comparable earnings analysis and only a one-third weighting to the combined results derived from his market-based DCF and CAPM analyses. The samples used by Mr. Rowell in his comparable earnings analysis differ from those in both his DCF and CAPM analyses, with his comparable earnings sample consisting of fourteen publicly-traded utility companies (7 water, 7 natural gas), his DCF sample consisting of fifteen companies (8 water, 7 natural gas) and his CAPM sample consisting of sixteen companies (8 water, 8 natural gas). A natural gas company excluded from his comparable earnings sample (AGL Resources) is included in his CAPM sample, and among the natural gas companies in that sample has the highest beta coefficient. Mr. Rowell calculates his realized ROE comparable earnings estimate on a weighted average basis, resulting in the gas sample companies having a disproportionate (i.e., 3-to-1) influence on his estimate relative to the water sample companies. The natural gas company (UGI Corporation) selected to replace AGL Resources in his comparable earnings sample accounts for almost 20 percent (19.73%) of his overall comparable earnings estimate, yet Mr. Rowell makes no adjustment to reduce UGI’s weighting factor by removing that portion of UGI’s earnings/common equity not subject to domestic rate regulation in the United States. Collectively, the natural gas sample weighting factor in Mr. Rowell’s comparable earnings analysis is overstated by

35.85 percent, due to the failure to similarly reduce the earnings/common equity component of other natural gas sample companies having significant non-regulated operating revenues. Mr. Rowell's constant growth DCF estimates rely exclusively on analysts' forecasts for earnings per share growth, and the dividend yield has been upwardly adjusted by means of *annual compounding*. Mr. Rowell's CAPM analyses employ an historical average risk-free rate, measured over the 32-year period January 1, 1980 - December 31, 2011, rather than a current spot intermediate- or long-term U.S. Treasury rate. Mr. Rowell's recommended cost of equity includes an upward 120 basis point Arizona Risk Premium adjustment to compensate the Companies for regulatory/small-size risk.



1 **I. INTRODUCTION**

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

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

6  
7 **Q. Briefly describe your responsibilities as a Public Utilities Analyst.**

8 A. I am responsible for the examination of financial and statistical information included in  
9 utility rate applications and other financial matters, including studies to estimate the cost  
10 of capital component in rate filings used to determine the overall revenue requirement, and  
11 for preparing written reports, testimonies and schedules to present Staff's  
12 recommendations to the Commission on these matters.

13  
14 **Q. Please describe your educational background and professional experience.**

15 A. I hold a Bachelor of Arts degree in History from Arizona State University, a Master of  
16 Library Science degree from the University of Arizona, and a Master of Business  
17 Administration degree with an emphasis in Finance from Arizona State University. While  
18 pursuing my MBA degree, I was inducted into Beta Gamma Sigma, the National Business  
19 Honor Society. I have passed the CPA exam, but opted not to pursue certification. I have  
20 worked professionally as a librarian, financial consultant and tax auditor and served as  
21 Staff's cost of capital witness in rate case evidentiary proceedings in my current as well as  
22 in a past tenure as a Commission employee.

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

2 A. My testimony provides Staff's recommended capital structure, return on equity ("ROE")  
3 and overall fair value rate of return ("FVROR") for establishing the revenue requirements  
4 for the Global Utilities' ("Global Parent Utilities" or "Companies") pending rate  
5 application.

6  
7 **Q. Please provide a brief description of Global.**

8 A. The seven public service corporations seeking rate relief in this docket (collectively, the  
9 "Global Parent Utilities") consist of three Class "A" utilities (Global Water - Santa Cruz  
10 Water Company, Global Water - Palo Verde Utilities Company, and Valencia Water  
11 Company - Town Division), one Class "B" utility (Willow Valley Water Company), two  
12 Class "C" utilities (Valencia Water Company - Greater Buckeye Division and Water  
13 Utility of Greater Tonopah), and one Class "D" utility (Water Utility of Northern  
14 Scottsdale). The Global Parent Utilities provide water and wastewater utility service to  
15 metered customers in parts of Maricopa, Mohave and Pinal Counties, Arizona, pursuant to  
16 certificates of convenience and necessity granted by the Commission.

17  
18 The Global Parent Utilities are owned by Global Water Resources, LLC ("GWR"), a  
19 limited liability corporation organized in 2003 to acquire, own, and manage a portfolio of  
20 water and wastewater utilities in the southwestern United States. An affiliate company,  
21 Global Water Management, LLC ("GWM") was formed to provide business development,  
22 management, construction project management, operations, and administrative services to  
23 GWR and all its regulated subsidiaries. In 2005, Global Water, Inc. ("GWI"), an Arizona  
24 corporation, was established as a subsidiary of GWR to acquire, own, and manage a  
25 portfolio of water and wastewater utilities. The Global Parent Utilities, as well as the  
26 unregulated Global affiliates noted above, are ultimately owned by Global Water

1 Resources, Inc. ("GWRI" or "Global Parent"), a publicly-traded entity listed on the  
2 Toronto Stock Exchange.

3  
4 **Summary of Testimony and Recommendations**

5 **Q. Briefly summarize how Staff's cost of capital testimony is organized.**

6 A. Staff's cost of capital testimony is presented in eleven sections. Section I is this  
7 introduction. Section II discusses the concept of weighted average cost of capital  
8 ("WACC"). Section III presents the concept of capital structure and presents Staff's  
9 recommended capital structure for the Global Parent Utilities in this proceeding. Section  
10 IV presents Staff's cost of debt for the Global Parent Utilities. Section V discusses the  
11 concepts of ROE and risk. Section VI presents the methods employed by Staff to estimate  
12 the Global Parent Utilities' ROE. Section VII presents the findings of Staff's ROE  
13 analysis. Section VIII presents additional factors considered in developing the cost of  
14 equity estimate for the Global Parent Utilities. Section IX presents Staff's FVROR  
15 recommendation. Section X presents Staff's comments on the direct testimony of the  
16 Company's witness, Mr. Matthew J. Rowell. Finally, section XI presents the conclusions.

17  
18 **Q. Have you prepared any exhibits to accompany your testimony?**

19 A. Yes. I prepared ten schedules (JAC-1 to JAC-9) and Exhibits JAC-A and JAC-B in  
20 support Staff's cost of capital analysis.

21  
22 **Q. What is Staff's Fair Value Rate of Return ("FVROR")?**

23 A. Staff recommends a 7.5 percent overall FVROR, as shown in Schedule JAC-1. The  
24 FVROR is calculated from the capital structure, ROE and cost of debt. Staff's capital  
25 structure is composed of 57.8 percent debt and 42.2 percent equity. Staff's estimated ROE  
26 for the Company is based on the results of its DCF and CAPM cost of equity methodology

1 estimates for the sample companies of 8.9 percent for the capital asset pricing model  
2 (“CAPM”) and 8.6 percent for the discounted cash flow method (“DCF”), and includes a  
3 60 basis point upward economic assessment adjustment.  
4

5 **Global Parent Utilities’ Proposed Overall Fair Value Rate of Return**

6 **Q. Briefly summarize the Global Parent Utilities’ proposed capital structure, cost of**  
7 **debt, ROE and overall FVROR for this proceeding.**

8 **A.** As shown in Schedule JAC-1, the Global Parent Utilities proposes a different capital  
9 structure and cost of debt for each of the seven Global Parent Utilities operating units, and  
10 a uniform 11.44 percent ROE. As a consequence, the resulting overall FVROR is unique  
11 for each operating unit, as summarized in Table 1:  
12

13 **Table 1**

14 <u>Global Parent Utilities Operating Units</u>	15 <u>WACC/ROR</u>
16 Palo Verde Utilities Company	8.81%
17 Santa Cruz Water Company	8.79%
18 Valencia Water Company – Town Division	10.55%
19 Valencia Water Company – Greater Buckeye <sup>1</sup>	11.18%
20 Water Utility of Greater Tonopah	10.72%
21 Willow Valley Water Company	10.60%
22 Water Utility of Northern Scottsdale	11.44%

23  
24 **II. THE WEIGHTED AVERAGE COST OF CAPITAL**

25 **Q. Briefly explain the cost of capital concept.**

26 **A.** The cost of capital is the opportunity cost of choosing one investment over others with  
27 equivalent risk. In other words, the cost of capital is the return that stakeholders expect

<sup>1</sup> Schedule D-1 of the Company’s application shows 11.18% which is the mathematically correct calculation based on the Company’s supporting data. Table MJR 11 of Mr. Rowell’s direct testimony shows 11.07%.

1 for investing their financial resources in a determined business venture over another  
2 business venture.

3  
4 **Q. What is the overall cost of capital?**

5 A. The overall cost of capital for a firm issuing a variety of securities (i.e., stock and  
6 indebtedness) represents an average of the various cost rates on all securities issued by the  
7 firm adjusted to reflect the relative weighting of each security within the firm's capital  
8 structure. Thus, for any given firm, the overall cost of capital is the firm's weighted  
9 average cost of capital.

10  
11 **Q. How is the WACC calculated?**

12 A. The WACC is calculated by adding the weighted expected returns of a firm's securities.  
13 The WACC formula is:

14 Equation 1.

15  
16 
$$\text{WACC} = \sum_{i=1}^n W_i * r_i$$
  
17

18 In this equation,  $W_i$  is the weight given to the  $i^{\text{th}}$  security (the proportion of the  $i^{\text{th}}$  security  
19 relative to the portfolio) and  $r_i$  is the expected return on the  $i^{\text{th}}$  security.  
20

1 **Q. Can you provide an example demonstrating application of Equation 1?**

2 A. Yes. For this example, assume that an entity has a capital structure composed of 60  
3 percent debt and 40 percent equity. Also, assume that the embedded cost of debt is 6.0  
4 percent and the expected return on equity, i.e., the cost of equity, is 10.5 percent.

5 Calculation of the WACC is as follows:

6 
$$\text{WACC} = (60\% * 6.0\%) + (40\% * 10.5\%)$$

7 
$$\text{WACC} = 3.60\% + 4.20\%$$

8 
$$\text{WACC} = 7.80\%$$

9  
10 The weighted average cost of capital in this example is 7.80 percent. The entity in this  
11 example would need to earn an overall rate of return of 7.80 percent to cover its cost of  
12 capital.

13  
14 **III. CAPITAL STRUCTURE**

15 **Background**

16 **Q. Please explain the capital structure concept.**

17 A. The capital structure of a firm is the relative proportions of each type of security: short-  
18 term debt, long-term debt (including capital leases), preferred stock and common stock--  
19 that are used to finance the firm's assets.

20  
21 **Q. How is the capital structure expressed?**

22 A. The capital structure of a company is expressed as the percentage of each component of  
23 the capital structure (capital leases, short-term debt, long-term debt, preferred stock and  
24 common stock) relative to the entire capital structure.

1 As an example, the capital structure for an entity that is financed by \$20,000 of short-term  
2 debt, \$85,000 of long-term debt (including capital leases), \$15,000 of preferred stock and  
3 \$80,000 of common stock is shown in Table 2.

4  
5 **Table 2**

Component			%
Short-Term Debt	\$20,000	(\$20,000/\$200,000)	10.0%
Long-Term Debt	\$85,000	(\$85,000/\$200,000)	42.5%
Preferred Stock	\$15,000	(\$15,000/\$200,000)	7.5%
Common Stock	\$80,000	(\$80,000/\$200,000)	40.0%
Total	\$200,000		100%

6  
7 The capital structure in this example is composed of 10.0 percent short-term debt, 42.5  
8 percent long-term debt, 7.5 percent preferred stock and 40.0 percent common stock.

9  
10 **Global Parent Utilities' Capital Structure**

11 **Q. What capital structure does the Global Parent Utilities propose?**

12 A. As noted, the Global Parent Utilities propose a different capital structure for each of its  
13 seven operating units. The capital structures for Palo Verde and Santa Cruz are developed  
14 from an imputation of Industrial Development Authority ("IDA") bond debt carried on the  
15 books of the Global Parent,<sup>2</sup> while the capital structures for the other Global Parent  
16 Utilities are based on the respective debt and equity balances of each as of the December  
17 31, 2011, test-year end (See Rowell Direct, p. 3, lines 5-8).

18  

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<sup>2</sup> In the 2009 Global rate case (Docket No. SW-20445A-09-0077 et al), Global proposed a similar imputation of IDA debt to Palo Verde and Santa Cruz, and such imputation was accepted by all parties.

1 **Q. How do the proposed Global Parent Utilities capital structures compare to capital**  
2 **structures of publicly-traded water utilities?**

3 Schedule JAC-4 shows the capital structures of six publicly-traded water companies  
4 (“sample water companies” or “sample water utilities”) as of December 31, 2012. The  
5 average capital structure for the sample water utilities is comprised of approximately 51.2  
6 percent debt and 48.8 percent equity. As presented in Schedule JAC- 1, a review of the  
7 individual capital structures proposed for the Global Parent Utilities indicates that only  
8 Palo Verde (51.7% debt, 48.3% equity) and Santa Cruz (54.5% debt, 45.5% equity) have  
9 capital structures comparable to the average sample water utility capital structure, with  
10 Santa Cruz being the only Global Parent Utilities system more highly leveraged (54.5%  
11 debt) than the sample average capital structure (51.2% debt). In all other cases, the Global  
12 Parent Utilities proposed capital structures are far less leveraged (i.e., more equity rich)  
13 than the sample average capital structure, with Valencia – Town Division having the  
14 highest (21.3%) and Northern Scottsdale the lowest (0.0%) percentage of debt.<sup>3</sup>

15  
16 **Staff’s Capital Structure**

17 **Q. What is Staff’s recommended capital structure for the Global Parent Utilities in this**  
18 **proceeding?**

19 A. Staff recommends a single, consolidated capital structure in this proceeding, one  
20 composed of both the aggregate combined debt and equity positions of all seven Global  
21 Parent Utilities, updated as of December 31, 2012. Staff’s recommended capital structure  
22 consists of 57.8 percent debt and 42.2 percent equity (\$126,205,263 long-term debt and  
23 \$92,101,433 common equity).

24  

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<sup>3</sup> Schedule MJR 11 of Rowell Direct erroneously shows the capital structure for the Consolidated West Valley (Valencia – Town, Valencia – Greater Buckeye and Water Utility of Greater Tonopah combined) as 22.41% debt and 77.59% equity. The mathematically correct capital structure using the amounts for the individual systems is composed of 18.33% debt and 81.67% equity.



1 **Q. Why is Staff recommending the use of a consolidated capital structure for purposes**  
2 **of setting rates in this docket?**

3 A. Staff recommends the use of a consolidated capital structure to recognize that  
4 management controls how to distribute the amounts of debt and equity capital available  
5 among the various individual systems that comprise the Global Parent Utilities.  
6 Ratepayers in the individual systems should not be subject to higher or lower capital costs  
7 relative to the other systems in the Global Parent Utilities due to these management  
8 decisions. Using a consolidate capital structure provides uniform capital costs among the  
9 individual systems to provide a measure of equity to ratepayers while providing full cost  
10 recovery for the Company. As proposed by the Company, rates for each of the seven  
11 Global Parent Utilities would be set based upon unique capital structures and debt costs  
12 (the Company proposes a uniform 11.44 percent cost of equity for all of the Global Parent  
13 Utilities).

14  
15 **Q. Why did Staff choose to update its recommended capital structure as of December**  
16 **31, 2012, for purposes of setting rates in this docket?**

17 A. The Global Parent Utilities filed its Application(s) in this docket on July 9, 2012, utilizing  
18 a December 31, 2011, test-year end, and the capital structures proposed by the Company  
19 are reflective of the Global Parent Utilities' financial position as of that date. More than  
20 18-months have elapsed since December 31, 2011, and upon learning of changes which  
21 took place to the various Global Parent Utilities capital structures in calendar year 2012,  
22 Staff elected to update its capital structure to reflect those known and measureable  
23 changes for purposes of setting rates in this docket. Updating the capital structure to use  
24 more current rather than dated or stale information is a normal practice for Staff in similar  
25 circumstances.

26

1 **Q. For the reasons noted above, should the Global Parent Utilities proposed capital**  
2 **structures be relied upon for purposes of setting rates in this docket?**

3 A. No, they should not.  
4

5 **IV. COST OF DEBT**

6 **Q. What is the basis for the Global Parent Utilities proposed cost of debt in this**  
7 **proceeding?**

8 A. The Companies' proposed cost of debt reflects the Global Parent Utilities embedded cost  
9 of debt, inclusive of the IDA bond debt imputed to Palo Verde and Santa Cruz, as of  
10 December 31, 2011. The IDA bond debt imputed from the parent was allocated to Palo  
11 Verde (\$62,047,253) and Santa Cruz (\$50,745,824) as a function of the relative values of  
12 capital projects funded by each system, respectively, through IDA bond debt proceeds. Of  
13 the remaining five Global Parent Utilities capital structures, four contained debt provided  
14 through loans issued by the Water Infrastructure Financing Authority of Arizona  
15 ("WIFA"): Valencia - Town Division (\$3,436,964); Valencia - Buckeye Division  
16 (\$117,418); Greater Tonopah (\$440,989); and Willow Valley (\$417,008). Additionally,  
17 Valencia - Buckeye Division's capital structure includes a Stewart Title (Garcia) loan  
18 (\$17,168), while the capital structure of Northern Scottsdale carried no debt.  
19

20 **Q. How have the capital structures of the individual Global Parent Utilities changed**  
21 **since the December 31, 2011, test-year end date?**

22 A. Two notable events occurred during the 2012 calendar year which impacted the debt  
23 component of the various Global Parent Utilities' capital structures. First, in June, 2012,  
24 Global secured an additional \$7,625,000 of tax-exempt IDA revenue bonds ("Series  
25 2012A Bonds") and \$6,375,000 of taxable IDA revenue bonds ("Series 2012B Bonds")

1 through the Industrial Development Authority for the County of Pima, Arizona.<sup>4</sup>  
2 Subsequently, in August, 2012, Global repaid its outstanding WIFA loan debt in full.<sup>5</sup> If  
3 this new IDA bond debt were to be imputed to Palo Verde and Santa Cruz in a manner  
4 similar to that previously done, its impact would be confined only to those two Global  
5 Parent Utilities capital structures. However, repayment of the WIFA loan debt effectively  
6 converts three of the four Global Parent Utilities' (Valencia – Town Division, Greater  
7 Tonopah and Willow Valley) capital structures to 100 percent equity, while leaving  
8 another (Valencia – Buckeye Division) with a much diminished debt component (i.e., the  
9 Stewart Title (Garcia) loan). While covenants of IDA bonds restrict the locations where  
10 the proceeds can be expended, GWR and GWRI manage their capital structures and have  
11 flexibility in determining the amount of debt and equity available for use in the individual  
12 systems.

13  
14 **Q. What cost of debt is Staff recommending?**

15 A. Staff's debt includes the debt included by the Global Parent Utilities which consist of  
16 \$112,793,007 in IDA bonds issued prior to 2011 at 6.46 percent and \$12,186 for the  
17 Stewart Title (Garcia) loan at 8.00 percent. Staff's debt also includes the IDA bonds  
18 issued in 2012, which is \$13,400,000 at 3.30 percent.

19  
20 **V. RETURN ON EQUITY**

21 **Background**

22 **Q. Please define the term "cost of equity capital."**

23 A. The cost of equity is the rate of return that investors expect to earn on their investment in a  
24 business entity given its risk. In other words, the cost of equity to the entity is the

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<sup>4</sup> Global Water Resources, Inc., *Consolidated Financial Statements as of and for the Years Ended December 31, 2012 and 2011*, p. 17.

<sup>5</sup> *Ibid.*

1 investors' expected rate of return on other investments of similar risk. As investors have a  
2 wide selection of stocks to choose from, they will choose stocks with similar risks but  
3 higher returns. Therefore, the market determines the entity's cost of equity.  
4

5 **Q. Is there a correlation between interest rates and the cost of equity?**

6 A. Yes, there is a positive correlation between interest rates and the cost of equity, as the two  
7 tend to move in the same direction. This relationship is reflected in the CAPM formula.  
8 The CAPM is a market-based model employed by Staff for estimating the cost of equity.  
9 The CAPM is further discussed in Section VI of this testimony.  
10

11 **Q. What has been the general trend of interest rates in recent years?**

12 A. A chronological chart of interest rates is a good tool to show interest rate history and  
13 identify trends. Chart 1 graphs intermediate U.S. treasury rates from January 4, 2002, to  
14 May 31, 2013.  
15  
16

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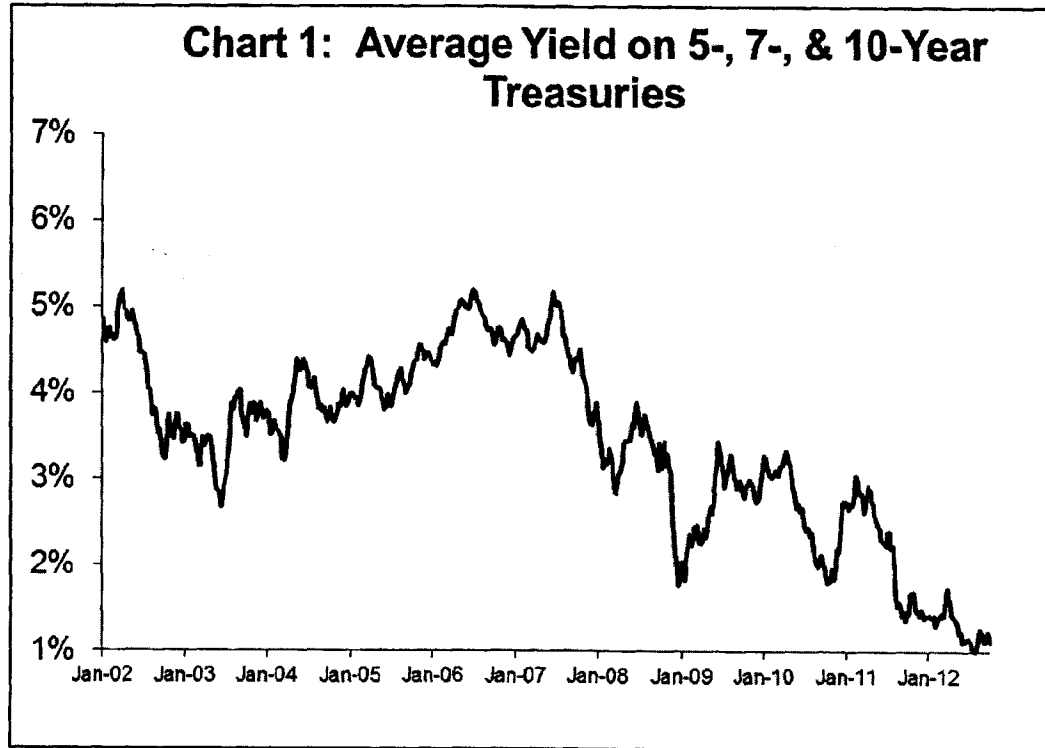


Chart 1 shows that intermediate-term interest rates trended downward from 2002 to mid-2003, trended upward through mid-2007, and have generally trended down since that time.

**Q. What has been the general trend in interest rates longer term?**

A. U.S. Treasury rates from January 1962- May 2013 are shown in Chart 2. The chart shows that interest rates trended upward through the mid-1980s and have trended downward over the last 25 years.

**Chart 2: History of 5- and 10-Year Treasury Yields**



Source: Federal Reserve

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14  
15 **Q. Do these trends suggest anything in terms of cost of equity?**

16 A. Yes. As previously noted, interest rates and the cost of equity tend to move in the same  
17 direction; therefore, the cost of equity has declined in the past 25 years.

18  
19 **Q. Do actual returns represent the cost of equity?**

20 A. No. The cost of equity represents investors' *expected* returns and not realized returns.

21  
22 **Q. Is there any information available that leads to an understanding of the relationship  
23 between the equity returns required for a regulated water utility and those required  
24 in the market as a whole?**

25 A. Yes. A comparison of betas, a component of the CAPM discussed in Section VI, for the  
26 water utility industry and the market provide insight into this relationship. In theory, the

1 market has a beta value of 1.0, with stocks bearing greater risk (less risk) than the market  
2 having beta values higher than (lower than) 1.0, respectively. Furthermore, in accordance  
3 with the CAPM, the cost of equity capital moves in the same direction as beta. Therefore,  
4 because the average beta value (0.71)<sup>6</sup> for a water utility is less than 1.0, the required  
5 return on equity for a regulated water utility is below that of the market as a whole.  
6

7 **Risk**

8 **Q. Please define risk in relation to cost of capital.**

9 A. Risk, as it relates to an investment, is the variability or uncertainty of the returns on a  
10 particular security. Investors are risk averse and require a greater potential return to invest  
11 in relatively greater risk opportunities, i.e., investors require compensation for taking  
12 on additional risk. Risk is generally separated into two components. Those components  
13 are market risk (systematic risk) and non-market risk (unsystematic risk, diversifiable risk  
14 or firm-specific risk).  
15

16 **Q. What is market risk?**

17 A. Market risk, or systematic risk, is the risk associated with an investment that cannot be  
18 reduced through diversification. Market risk stems from factors that affect all securities,  
19 such as recessions, war, inflation and high interest rates. Since these factors affect the  
20 entire market they cannot be eliminated through diversification. Market risk does not  
21 impact each security to the same degree. The degree to which a given security's return is  
22 affected by market fluctuations can be measured using Beta. Beta reflects the business  
23 risk and the financial risk of a security.  
24

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<sup>6</sup> See Schedule JAC-7.

1 **Q. Please define business risk.**

2 A. Business risk is the fluctuation of earnings inherent in a firm's operations and  
3 environment, such as competition and adverse economic conditions that may impair its  
4 ability to provide returns on investment. Companies in the same industry or similar lines  
5 of business tend to experience the same fluctuations in business cycles.

6  
7 **Q. Please define financial risk.**

8 A. Financial risk is the fluctuation of earnings, inherent in the use of debt financing, that may  
9 impair a firm's ability to provide adequate return; the higher the percentage of debt in a  
10 firm's capital structure, the greater its exposure to financial risk.

11  
12 **Q. Do business risk and financial risk affect the cost of equity?**

13 A. Yes.

14  
15 **Q. Is a firm subject to any other risk?**

16 A. Yes. Firms are also subject to unsystematic or firm-specific risk. Examples of  
17 unsystematic risk include losses caused by labor problems, nationalization of assets, loss  
18 of a big client or weather conditions. Investors can eliminate firm-specific risk by holding  
19 a diverse portfolio; thus, it is not of concern to diversified investors.

20  
21 **Q. How does Global Parent Utilities financial risk exposure compare to that of Staff's  
22 sample group of water companies?**

23 A. JAC-4 shows the capital structures of Staff's six sample water companies as of December  
24 30, 2012, and Schedule JAC-1 presents the proposed capital structures for each of the  
25 seven Global Parent Utilities as of the December 31, 2011 test-year end. As shown, the  
26 sample water utilities were capitalized with approximately 51.2 percent debt and 48.8



1 percent equity. In contrast, the proposed Global Parent Utilities' capital structures  
2 generally consist of less debt and more equity, with Santa Cruz being the only Global  
3 Parent Utility having greater exposure to financial risk (i.e., 54.5% debt) than the sample  
4 average capital structure (51.2% debt). Thus, as proposed by the Companies, the capital  
5 structures of the collective Global Parent Utilities bears less financial risk than does  
6 Staff's sample companies.

7  
8 **Q. As regards financial risk exposure, how does Staff's recommended capital structure**  
9 **compare to that of Staff's sample group of water companies?**

10 A. As shown in Schedule JAC-1, Staff recommends a consolidated capital structure of 57.8  
11 percent debt and 42.2 percent equity. Staff's recommended consolidated capital structure  
12 suggests that the collective Global Parent Utilities bear slightly more financial risk  
13 exposure than does Staff's sample average capital structure, which consists of 51.2 percent  
14 debt and 48.8 percent equity.

15  
16 **Q. Does Staff recommend an upward adjustment to the COE to compensate the Global**  
17 **Parent Utilities for financial risk exposure?**

18 A. No. Staff considers a capital structure composed of between 40–60 percent debt to be  
19 reasonably balanced and economically efficient, and thus does not recommend an upward  
20 financial risk adjustment to the cost of equity in those instances. While it is true that a  
21 company should be compensated for financial risk, there is a range within which no  
22 adjustment should be made, and Staff considers the Global Parent Utilities' 57.8 percent  
23 debt level to be within that range.

24  
25 **Q. Is firm-specific risk measured by beta?**

26 A. No. Firm-specific risk is not measured by beta.

1 **Q. Is the cost of equity affected by firm-specific risk?**

2 A. No. Since firm-specific risk can be eliminated through diversification, it does not affect  
3 the cost of equity.

4

5 **Q. Can investors expect additional returns for firm-specific risk?**

6 A. No. Investors who hold diversified portfolios can eliminate firm-specific risk and,  
7 consequently, do not require any additional return. Since investors who choose to be less  
8 than fully-diversified must compete in the market with fully-diversified investors, the  
9 former cannot expect to be compensated for unique risk.

10

11 **VI. ESTIMATING THE COST OF EQUITY**

12 **Introduction**

13 **Q. Did Staff directly estimate the cost of equity for the Global Parent Utilities?**

14 A. No. Although the Global Parent is a publicly-traded company listed on the Toronto Stock  
15 Exchange, its stock is thinly traded. Accordingly, Staff was unable to directly estimate its  
16 market cost of equity due to the lack of firm-specific market data. Instead, Staff estimated  
17 the Companies' cost of equity indirectly, using a representative sample group of publicly  
18 traded water utilities as a proxy for the Global Parent Utilities. Use of a sample is  
19 appropriate, as it reduces the sample error resulting from random fluctuations in the  
20 market at the time the information is gathered.

21

22 **Q. What water utilities did Staff select for its proxy group of sample companies?**

23 A. Staff's sample consists of the following six publicly-traded water utilities: American  
24 States Water, California Water, Aqua America, Connecticut Water Services, Middlesex  
25 Water and SJW Corp. Staff chose these companies because they are publicly-traded and  
26 receive the majority of their earnings from regulated operations.

1 **Q. What models did Staff implement to estimate the Global Parent Utilities' cost of**  
2 **equity?**

3 A. Staff used two market-based models to estimate the cost of equity for the Global Parent  
4 Utilities: the DCF model and the CAPM.

5  
6 **Q. Please explain why Staff chose the DCF and CAPM models.**

7 A. Staff chose to use the DCF and CAPM models because they are widely-recognized  
8 market-based models and have been used extensively to estimate the cost of equity. An  
9 explanation of the DCF and CAPM models follows.

10

11 **Discounted Cash Flow Model Analysis**

12 **Q. Please provide a brief summary of the theory upon which the DCF method of**  
13 **estimating the cost of equity is based.**

14 A. The DCF method of stock valuation is based on the theory that the value of an investment  
15 is equal to the sum of the future cash flows generated from the aforementioned investment  
16 discounted to the present time. This method uses expected dividends, market price and  
17 dividend growth rate to calculate the cost of capital. Professor Myron Gordon pioneered  
18 the DCF method in the 1960s. The DCF method has become widely used to estimate the  
19 cost of equity for public utilities due to its theoretical merit and its simplicity. Staff used  
20 the financial information for the relevant six sample companies in the DCF model and  
21 averaged the results to determine an estimated cost of equity for the sample companies.

22

23 **Q. Does Staff use more than one version of the DCF?**

24 A. Yes. Staff uses two versions of the DCF model: the constant-growth DCF and the multi-  
25 stage or non-constant growth DCF. The constant-growth DCF assumes that an entity's

1 dividends will grow indefinitely at the same rate. The multi-stage growth DCF model  
2 assumes the dividend growth rate will change at some point in the future.

3  
4 *The Constant-Growth DCF*

5 **Q. What is the mathematical formula used in Staff's constant-growth DCF analysis?**

6 A. The constant-growth DCF formula used in Staff's analysis is:

7  
Equation 2 :

$$K = \frac{D_1}{P_0} + g$$

where :  $K$  = the cost of equity  
 $D_1$  = the expected annual dividend  
 $P_0$  = the current stock price  
 $g$  = the expected infinite annual growth rate of dividends

8  
9 Equation 2 assumes that the entity has a constant earnings retention rate and that its  
10 earnings are expected to grow at a constant rate. According to Equation 2, a stock with a  
11 current market price of \$10 per share, an expected annual dividend of \$0.45 per share and  
12 an expected dividend growth rate of 3.0 percent per year has a cost of equity to the entity  
13 of 7.5 percent reflected by the sum of the dividend yield ( $\$0.45 / \$10 = 4.5$  percent) and the  
14 3.0 percent annual dividend growth rate.

15  
16 **Q. How did Staff calculate the expected dividend yield ( $D_1/P_0$ ) component of the  
17 constant-growth DCF formula?**

18 A. Staff calculated the expected yield component of the DCF formula by dividing the  
19 expected annual dividend ( $D_1$ ) by the spot stock price ( $P_0$ ) after the close of market on  
20 April 3, 2013, as reported by *MSN Money*.

1 **Q. Why did Staff use the April 3, 2013, spot price rather than a historical average stock**  
2 **price to calculate the dividend yield component of the DCF formula?**

3 A. The current, rather than historic, market price is used in order to be consistent with  
4 financial theory. In accordance with the Efficient Market Hypothesis, the current stock  
5 price is reflective of all available information relating to the stock, and as such reveals  
6 investors' expectations of future returns. Use of historical average stock prices illogically  
7 discounts the most recent information in favor of less recent information. The latter is  
8 stale and is representative of underlying conditions that may have changed.

9  
10 **Q. How did Staff estimate the dividend growth (g) component of the constant-growth**  
11 **DCF model represented by Equation 2?**

12 A. The dividend growth component used by Staff is determined by the average of six  
13 different estimation methods, as shown in Schedule JAC-8. Staff calculated historical and  
14 projected growth estimates on dividend-per-share ("DPS"),<sup>7</sup> earnings-per-share ("EPS")<sup>8</sup>  
15 and sustainable growth bases.

16  
17 **Q. Why did Staff examine EPS growth to estimate the dividend growth component of**  
18 **the constant-growth DCF model?**

19 A. Historic and projected EPS growth are used because dividends are related to earnings.  
20 Dividend distributions may exceed earnings in the short run, but cannot continue  
21 indefinitely. In the long term, dividend distributions are dependent on earnings.

---

<sup>7</sup> Derived from information provided by *Value Line*.

<sup>8</sup> Derived from information provided by *Value Line*.

1 **Q. How did Staff estimate historical DPS growth?**

2 A. Staff estimated historical DPS growth by calculating a compound annual DPS growth rate  
3 for each of its sample companies over the 10-year period, 2002-2012. As shown in  
4 Schedule JAC-5, the average historical DPS growth rate for the sample was 3.4 percent.

5  
6 **Q. How did Staff estimate projected DPS growth?**

7 A. Staff calculated an average of the projected DPS growth rates for the sample water utilities  
8 from *Value Line* through the period, 2016-2018. The average projected DPS growth rate  
9 is 5.2 percent, as shown in Schedule JAC-5.

10

11 **Q. How did Staff estimate historical EPS growth rate?**

12 A. Staff estimated historical EPS growth by calculating a compound annual EPS growth rate  
13 for each of its sample companies over the 10-year period, 2002-2012. As shown in  
14 Schedule JAC-5, the average historical EPS growth rate for the sample was 4.9 percent.

15

16 **Q. How did Staff estimate projected EPS growth?**

17 A. Staff calculated an average of the projected EPS growth rates for the sample water utilities  
18 from *Value Line* through the period, 2016-2018. The average projected EPS growth rate  
19 is 4.7 percent, as shown in Schedule JAC-5.

20

21 **Q. How does Staff calculate its historical and projected sustainable growth rates?**

22 A. Historical and projected sustainable growth rates are calculated by adding their respective  
23 retention growth rate terms (br) to their respective stock financing growth rate terms (vs),  
24 as shown in Schedule JAC-6.

1 **Q. What is retention growth?**

2 A. Retention growth is the growth in dividends due to the retention of earnings. The  
3 retention growth concept is based on the theory that dividend growth cannot be achieved  
4 unless the company retains and reinvests some of its earnings. The retention growth is  
5 used in Staff's calculation of sustainable growth shown in Schedule JAC-6.

6

7 **Q. What is the formula for the retention growth rate?**

8 A. The retention growth rate is the product of the retention ratio and the book/accounting  
9 return on equity. The retention growth rate formula is:

10

Equation 3 :

$$\text{Retention Growth Rate} = br$$

where :  $b$  = the retention ratio (1 – dividend payout ratio)  
 $r$  = the accounting/book return on common equity

11

12 **Q. How did Staff calculate the average historical retention growth rate (br) for the**  
13 **sample water utilities?**

14 A. Staff calculated the mean of the 10-year average historical retention rate for each sample  
15 company over the period, 2002-2012. As shown in Schedule JAC-6, the historical  
16 average retention (br) growth rate for the sample is 2.8 percent.

17

18 **Q. How did Staff estimate its projected retention growth rate (br) for the sample water**  
19 **utilities?**

20 A. Staff used the retention growth projections for the sample water utilities for the period,  
21 2016-2018, from *Value Line*. As shown in Schedule JAC-6, the projected average  
22 retention growth rate for the sample companies is 3.8 percent.

1    **Q.    When can retention growth provide a reasonable estimate of future dividend**  
2           **growth?**

3    A.    The retention growth rate is a reasonable estimate of future dividend growth when the  
4           retention ratio is reasonably constant and the entity's market price to book value ("market-  
5           to-book ratio") is expected to be 1.0. The average retention ratio has been reasonably  
6           constant in recent years. However, the market-to-book ratio for the sample water utilities  
7           is 2.1, notably higher than 1.0, as shown in Schedule JAC-7.

8  
9    **Q.    Is there any financial implication of a market-to-book ratio greater than 1.0?**

10   A.    Yes. A market-to-book ratio greater than 1.0 implies that investors expect an entity to  
11           earn an accounting/book return on its equity that exceeds its cost of equity. The  
12           relationship between required returns and expected cash flows is readily observed in the  
13           fixed securities market. For example, assume an entity contemplating issuance of bonds  
14           with a face value of \$10 million at either 6 percent or 8 percent and, thus, paying annual  
15           interest of \$600,000 or \$800,000, respectively. Regardless of investors' required return on  
16           similar bonds, investors will be willing to pay more for the bonds if issued at 8 percent  
17           than if the bonds are issued at 6 percent. For example, if the current interest rate required  
18           by investors is 6 percent, then they would bid \$10 million for the 6 percent bonds and  
19           more than \$10 million for the 8 percent bonds. Similarly, if equity investors require a 9  
20           percent return and expect an entity to earn accounting/book returns of 13 percent, the  
21           market will bid up the price of the entity's stock to provide the required return of 9  
22           percent.



1 **Q. How has Staff generally recognized a market-to-book ratio exceeding 1.0 in its cost of**  
2 **equity analyses in recent years?**

3 A. Staff has assumed that investors expect the market-to-book ratio to remain greater than  
4 1.0. Given that assumption, Staff has added a stock financing growth rate (vs) term to the  
5 retention ratio (br) term to calculate its historical and projected sustainable growth rates.  
6

7 **Q. Do the historical and projected sustainable growth rates Staff uses to develop its**  
8 **DCF cost of equity in this case continue to include a stock financing growth rate**  
9 **term?**

10 A. Yes.  
11

12 **Q. What is stock financing growth?**

13 A. Stock financing growth is the growth in an entity's dividends due to the sale of stock by  
14 that entity. Stock financing growth is a concept derived by Myron Gordon and discussed  
15 in his book *The Cost of Capital to a Public Utility*.<sup>9</sup> Stock financing growth is the product  
16 of the fraction of the funds raised from the sale of stock that accrues to existing  
17 shareholders (v) and the fraction resulting from dividing the funds raised from the sale of  
18 stock by the existing common equity (s).  
19

---

<sup>9</sup> Gordon, Myron J. *The Cost of Capital to a Public Utility*. MSU Public Utilities Studies, Michigan, 1974. pp 31-35.

1 **Q. What is the mathematical formula for the stock financing growth rate?**

2 A. The mathematical formula for stock financing growth is:

Equation 4:

$$\text{Stock Financing Growth} = vs$$

where:  $v$  = Fraction of the funds raised from the sale of stock that accrues  
to existing shareholders

$s$  = Funds raised from the sale of stock as a fraction of the existing  
common equity

3

4 **Q. How is the variable  $v$  presented above calculated?**

5 A. Variable  $v$  is calculated as follows:

Equation 5:

$$v = 1 - \left( \frac{\text{book value}}{\text{market value}} \right)$$

6

7 For example, assume that a share of stock has a \$30 book value and is selling for \$45.

8 Then, to find the value of  $v$ , the formula is applied:

$$v = 1 - \left( \frac{30}{45} \right)$$

9

In this example,  $v$  is equal to 0.33.

10

11 **Q. How is the variable  $s$  presented above calculated?**

12 A. Variable  $s$  is calculated as follows:

13 Equation 6:

14

$$s = \frac{\text{Funds raised from the issuance of stock}}{\text{Total existing common equity before the issuance}}$$

15

1 For example, assume that an entity has \$150 in existing equity, and it sells \$30 of stock.  
2 Then, to find the value of  $s$ , the formula is applied:

$$s = \left( \frac{30}{150} \right)$$

3 In this example,  $s$  is equal to 20.0 percent.

4  
5 **Q. What is the  $\nu s$  term when the market-to-book ratio is equal to 1.0?**

6 A. A market-to-book ratio of 1.0 reflects that investors expect an entity to earn a  
7 book/accounting return on their equity investment equal to the cost of equity. When the  
8 market-to-book ratio is equal to 1.0, none of the funds raised from the sale of stock by the  
9 entity accrues to the benefit of existing shareholders, i.e., the term  $\nu$  is equal to zero (0.0).  
10 Consequently, the  $\nu s$  term is also equal to zero (0.0). When stock financing growth is  
11 zero, dividend growth depends solely on the  $br$  term.

12  
13 **Q. What is the effect of the  $\nu s$  term when the market-to-book ratio is greater than 1.0?**

14 A. A market-to-book ratio greater than 1.0 reflects that investors expect an entity to earn a  
15 book/accounting return on their equity investment greater than the cost of equity.  
16 Equation 5 shows that, when the market-to-book ratio is greater than 1.0, the  $\nu$  term is also  
17 greater than zero. The excess by which new shares are issued and sold over book value  
18 per share of outstanding stock is a contribution that accrues to existing stockholders in the  
19 form of a higher book value. The resulting higher book value leads to higher expected  
20 earnings and dividends. Continued growth from the  $\nu s$  term is dependent upon the  
21 continued issuance and sale of additional shares at a price that exceeds book value per  
22 share.

1 **Q. What  $vs$  estimate did Staff calculate from its analysis of the sample water utilities?**

2 A. Staff estimated an average stock financing growth of 1.9 percent for the sample water  
3 utilities, as shown in Schedule JAC-6.

4

5 **Q. What would occur if an entity had a market-to-book ratio greater than 1.0 as a result  
6 of investors expecting earnings to exceed its cost of equity, and subsequently  
7 experienced newly-authorized rates equal only to its cost of equity?**

8 A. Holding all other factors constant, one would expect market forces to move the company's  
9 stock price lower, closer to a market-to-book ratio of 1.0, to reflect investor expectations  
10 of reduced expected future cash flows.

11

12 **Q. If the average market-to-book ratio of Staff's sample water utilities were to fall to 1.0  
13 due to authorized ROEs equaling their cost of equity, would inclusion of the  $vs$  term  
14 be necessary to Staff's constant-growth DCF analysis?**

15 A. No. As discussed above, when the market-to-book ratio is equal to 1.0, no portion of the  
16 funds raised from the sale of stock by the entity accrues to the benefit of existing  
17 shareholders because the  $v$  term is equal to zero; thus, the  $vs$  term is also equal to zero.  
18 When the market-to-book ratio equals 1.0, dividend growth depends solely on the  $br$  term.  
19 Staff's inclusion of the  $vs$  term assumes that the market-to-book ratio continues to exceed  
20 1.0, and that the sample water utilities will continue to issue and sell stock at prices above  
21 book value with the effect of benefitting existing shareholders.

22

23 **Q. What are Staff's historical and projected sustainable growth rates?**

24 A. Staff's estimated historical sustainable growth rate is 4.7 percent based on an analysis of  
25 earnings retention for the sample water companies. Staff's projected sustainable growth

1 rate is 5.7 percent based on retention growth projected by *Value Line*. Schedule JAC-6  
2 presents Staff's estimates of the sustainable growth rate.

3  
4 **Q. What is Staff's expected infinite annual growth rate in dividends?**

5 A. Staff's expected dividend growth rate (g) is 4.8 percent, which is the average of historical  
6 and projected DPS, EPS, and sustainable growth estimates. Staff's calculation of the  
7 expected infinite annual growth rate in dividends is shown in Schedule JAC-8.

8  
9 **Q. What is Staff's constant-growth DCF estimate for the sample utilities?**

10 A. Staff's constant-growth DCF estimate is 7.8 percent, as shown in Schedule JAC-3.

11  
12 ***The Multi-Stage DCF***

13 **Q. Why did Staff implement the multi-stage DCF model to estimate the Global Parent**  
14 **Utilities' cost of equity?**

15 A. Staff generally uses the multi-stage DCF model to consider the assumption that dividends  
16 may not grow at a constant rate. The multi-stage DCF uses two stages of growth, the first  
17 stage (near-term) having a four-year duration, followed by the second stage (long-term) of  
18 constant growth.

19

1 Q. What is the mathematical formula for the multi-stage DCF?

2 A. The multi-stage DCF formula is shown in the following equation:

Equation 7 :

$$P_0 = \sum_{t=1}^n \frac{D_t}{(1+K)^t} + \frac{D_n(1+g_n)}{K-g_n} \left[ \frac{1}{(1+K)} \right]^n$$

Where :  $P_0$  = current stock price  
 $D_t$  = dividends expected during stage 1  
 $K$  = cost of equity  
 $n$  = years of non - constant growth  
 $D_n$  = dividend expected in year n  
 $g_n$  = constant rate of growth expected after year n

3

4 Q. What steps did Staff take to implement its multi-stage DCF cost of equity model?

5 A. First, Staff projected future dividends for each of the sample water utilities using near-  
6 term and long-term growth rates. Second, Staff calculated the internal rate of return (cost  
7 of equity) which equates the present value of the forecasted dividends to the current stock  
8 price for each of the sample water utilities. Lastly, Staff calculated an overall sample  
9 average cost of equity estimate.

10

11 Q. How did Staff calculate near-term (stage-1) growth?

12 A. The stage-1 growth rate is based on *Value Lines*' projected dividends for the next twelve  
13 months, when available, and on the average dividend growth (g) rate of 4.8 percent,  
14 calculated in Staff's constant DCF analysis for the remainder of the stage.

1 **Q. How did Staff estimate long-term (stage-2) growth?**

2 A. Staff calculated the stage-2 growth rate using the arithmetic mean rate of growth in Gross  
3 Domestic Product ("GDP") from 1929 to 2012.<sup>10</sup> Using the GDP growth rate assumes  
4 that the water utility industry is expected to grow at the same rate as the overall economy.

5  
6 **Q. What is the historical GDP growth rate that Staff used to estimate stage-2 growth?**

7 A. Staff used 6.5 percent to estimate the stage-2 growth rate.  
8

9 **Q. What is Staff's multi-stage DCF estimate for the sample utilities?**

10 A. Staff's multi-stage DCF estimate is 9.3 percent, as shown in Schedule JAC-3.  
11

12 **Q. What is Staff's overall DCF estimate for the sample utilities?**

13 A. Staff's overall DCF estimate is 8.6 percent. Staff calculated the overall DCF estimate by  
14 averaging the constant growth DCF (7.8%) and multi-stage DCF (9.3%) estimates, as  
15 shown in Schedule JAC-3.  
16

17 **Capital Asset Pricing Model**

18 **Q. Please describe the CAPM.**

19 A. The CAPM is used to determine the prices of securities in a competitive market. The  
20 CAPM model describes the relationship between a security's investment risk and its  
21 market rate of return. Under the CAPM, an investor requires the expected return of a  
22 security to equal the rate on a risk-free security plus a risk premium. The model also  
23 assumes that investors will sufficiently diversify their investments to eliminate any non-  
24 systematic or unique risk.<sup>11</sup> In 1990, Professors Harry Markowitz, William Sharpe, and

---

<sup>10</sup> www.bea.doc.gov.

<sup>11</sup> The CAPM makes the following assumptions: 1) single holding period; 2) perfect and competitive securities market; 3) no transaction costs; 4) no restrictions on short selling or borrowing; 5) the existence of a risk-free rate; and 6) homogeneous expectations.

1 Merton Miller earned the Nobel Prize in Economic Sciences for their contribution to the  
2 development of the CAPM.

3

4 **Q. Did Staff use the same sample water utilities in its CAPM and DCF cost of equity**  
5 **estimation analyses?**

6 A. Yes. Staff's CAPM cost of equity estimation analysis uses the same sample water  
7 companies as did its DCF cost of equity estimation analysis.

8

9 **Q. What is the mathematical formula for the CAPM?**

10 A. The mathematical formula for the CAPM is:

11

Equation 8 :

$$K = R_f + \beta (R_m - R_f)$$

where:  $R_f$  = risk free rate  
 $R_m$  = return on market  
 $\beta$  = beta  
 $R_m - R_f$  = market risk premium  
 $K$  = expected return

12

13 The equation shows that the expected return (K) on a risky asset is equal to the risk-free  
14 interest rate ( $R_f$ ) plus the product of the market risk premium ( $R_m - R_f$ ) multiplied by the  
15 beta ( $\beta$ ) coefficient, where beta represents the riskiness of the investment relative to the  
16 market.

17



1 **Q. What is the risk-free rate?**

2 A. The risk-free rate is the rate of return of an investment free of default risk.

3

4 **Q. What does Staff use as surrogates to represent estimations of the risk-free rates of**  
5 **interest in its historical and current market risk premium CAPM methods?**

6 A. Staff uses separate parameters as surrogates for the estimations of the risk-free rates of  
7 interest for the historical market risk premium CAPM cost of equity estimation and the  
8 current market risk premium CAPM cost of equity estimation. Staff uses the average of  
9 three (5-, 7-, and 10-year) intermediate-term U.S. Treasury securities' spot rates in its  
10 historical market risk premium CAPM cost of equity estimation, and the 30-year U.S.  
11 Treasury bond spot rate in its current market risk premium CAPM cost of equity  
12 estimation. Rates on U.S. Treasuries are largely verifiable and readily available.

13

14 **Q. What does beta measure?**

15 A. Beta is a measure of a security's price volatility, or systematic risk, relative to the market  
16 as a whole. Since systematic risk cannot be diversified away, it is the only risk that is  
17 relevant when estimating a security's required return. Using a baseline market beta of 1.0,  
18 a security having a beta value less than 1.0 will be less volatile (i.e., less risky) than the  
19 market. A security with a beta value greater than 1.0 will be more volatile (i.e., more  
20 risky) than the market.

21

22 **Q. How did Staff estimate the Global Parent Utilities' beta?**

23 A. Staff used the average of the *Value Line* betas for the sample water utilities as a proxy for  
24 the Companies' beta. Schedule JAC-7 shows the *Value Line* betas for each of the sample  
25 water utilities. The 0.71 average beta for the sample water utilities is Staff's estimated  
26 beta for the Global Parent Utilities. A security having a beta value of 0.71 is less volatile

1 than the market as a whole, and thus requires a lower return on equity than does the  
2 overall market.

3  
4 **Q. What is the market risk premium ( $R_m - R_f$ )?**

5 A. The market risk premium is the expected return on the market, minus the risk-free rate.  
6 Simplified, it is the return an investor expects as compensation for market risk.

7  
8 **Q. What did Staff use for the market risk premium?**

9 A. Staff uses separate calculations for the market risk premium in its historical and current  
10 market risk premium CAPM methods.

11  
12 **Q. How did Staff calculate an estimate for the market risk premium in its historical  
13 market risk premium CAPM method?**

14 A. Staff uses the intermediate-term government bond income returns published in the  
15 Ibbotson Associates' *Stocks, Bonds, Bills, and Inflation 2013 Yearbook* to calculate the  
16 historical market risk premium. Ibbotson Associates calculates the historical risk  
17 premium by averaging the historical arithmetic differences between the S&P 500 and the  
18 intermediate-term government bond income returns for the period 1926-2012. Staff's  
19 historical market risk premium estimate is 7.2 percent, as shown in Schedule JAC-3.

20  
21 **Q. How did Staff calculate an estimate for the market risk premium in its current  
22 market risk premium CAPM method?**

23 A. Staff solves equation 8 above to arrive at a market risk premium using a DCF-derived  
24 expected return (K) of 14.67 ( $2.2 + 12.47^{12}$ ) percent using the expected dividend yield (2.2  
25 percent over the next twelve months) and the annual per share growth rate (12.47 percent)

---

<sup>12</sup> The three to five year price appreciation is 60%.  $1.60^{0.25} - 1 = 12.47\%$ .

1 that *Value Line* projects for all dividend-paying stocks under its review<sup>13</sup> along with the  
2 current long-term risk-free rate (30-year Treasury note at 3.05 percent) and the market's  
3 average beta of 1.0. Staff calculated the current market risk premium as 11.62 percent,<sup>14</sup>  
4 as shown in Schedule JAC-3.

5  
6 **Q. What is the result of Staff's historical market risk premium CAPM and current  
7 market risk premium CAPM cost of equity estimations for the sample utilities?**

8 A. Staff's cost of equity estimates are 6.4 percent using the historical market risk premium  
9 CAPM and 11.3 percent using the current market risk premium CAPM.

10  
11 **Q. What is Staff's overall CAPM estimate for the sample utilities?**

12 A. Staff's overall CAPM cost of equity estimate is 8.9 percent which is the average of the  
13 historical market risk premium CAPM (6.4 percent) and the current market risk premium  
14 CAPM (11.3 percent) estimates, as shown in Schedule JAC-3.

15  
16 **VII. SUMMARY OF STAFF'S COST OF EQUITY ANALYSIS**

17 **Q. What is the result of Staff's constant-growth DCF analysis to estimate the cost of  
18 equity for the sample water utilities?**

19 A. Schedule JAC-3 shows the result of Staff's constant-growth DCF analysis. The result of  
20 Staff's constant-growth DCF analysis is as follows:

21  
22 
$$k = 3.0\% + 4.8\%$$

23  
24 
$$k = 7.8\%$$

25  

---

<sup>13</sup> October 26, 2012 issue date.

<sup>14</sup>  $14.67\% = 3.05\% + (1) (11.62\%)$ .

1 Staff's constant-growth DCF estimate of the cost of equity for the sample water utilities is  
2 7.8 percent.

3

4 **Q. What is the result of Staff's multi-stage DCF analysis to estimate of the cost of equity**  
5 **for the sample utilities?**

6 A. Schedule JAC-9 shows the result of Staff's multi-stage DCF analysis. The result of  
7 Staff's multi-stage DCF analysis is:

8

9	<b>Company</b>	<b>Equity Cost</b>
10		<b>Estimate (k)</b>
11	American States Water	8.7%
12	California Water	9.7%
13	Aqua America	8.5%
14	Connecticut Water	9.8%
15	Middlesex Water	10.2%
16	SJW Corp	<u>9.2%</u>
17		
18	<b>Average</b>	<b>9.3%</b>

19

20 Staff's multi-stage DCF estimate of the cost of equity for the sample water utilities is 9.3  
21 percent.

22

23 **Q. What is Staff's overall DCF estimate of the cost of equity for the sample utilities?**

24 A. Staff's overall DCF estimate of the cost of equity for the sample utilities is 8.6 percent.  
25 Staff calculated an overall DCF cost of equity estimate by averaging Staff's constant  
26 growth DCF (7.8 percent) and Staff's multi-stage DCF (9.3 percent) estimates, as shown  
27 in Schedule JAC-3.

28

1 **Q. What is the result of Staff's historical market risk premium CAPM analysis to**  
2 **estimate of the cost of equity for the sample utilities?**

3 A. Schedule JAC-3 shows the result of Staff's CAPM analysis using the historical risk  
4 premium estimate. The result is as follows:

5  $k = 1.3\% + 0.71 * 7.2\%$

6  $k = 6.4\%$

7  
8 Staff's CAPM estimate (using the historical market risk premium) of the cost of equity for  
9 the sample water utilities is 6.4 percent.

10

11 **Q. What is the result of Staff's current market risk premium CAPM analysis to**  
12 **estimate the cost of equity for the sample utilities?**

13 A. Schedule JAC-3 shows the result of Staff's CAPM analysis using the current market risk  
14 premium estimate. The result is:

15  $k = 3.1\% + 0.71 * 11.6\%$

16  $k = 11.3\%$

17  
18 Staff's CAPM estimate (using the current market risk premium) of the cost of equity to the  
19 sample water utilities is 11.3 percent.

20

21 **Q. What is Staff's overall CAPM estimate of the cost of equity for the sample utilities?**

22 A. Staff's overall CAPM estimate for the sample utilities is 8.9 percent. Staff's overall  
23 CAPM estimate is the average of the historical market risk premium CAPM (6.4 percent)  
24 and the current market risk premium CAPM (11.3 percent) estimates, as shown in  
25 Schedule JAC-3.

26

1 **Q. Please summarize the results of Staff's cost of equity analysis for the sample utilities.**

2 A. The following table shows the results of Staff's cost of equity analysis:

3 **Table 2**

<b>Method</b>	<b>Estimate</b>
Average DCF Estimate	8.6%
Average CAPM Estimate	8.9%
<b>Overall Average</b>	<b>8.8%</b>

4

5 Staff's average estimate of the cost of equity to the sample water utilities is 8.8 percent.

6

7 **VIII. OTHER COST OF EQUITY ESTIMATE FACTORS**

8 **Q. Please compare the Global Parent Utilities' capital structure to that of the six sample**  
9 **water companies.**

10 A. The average capital structure for the sample water utilities is composed of 51.2 percent  
11 debt and 48.8 percent equity, as shown in Schedule JAC-4. The Companies have  
12 proposed a capital structure unique to each of the seven Global Parent Utilities operating  
13 units, and as noted earlier, with the exception of the capital structure proposed for Santa  
14 Cruz, the remaining six capital structures are less leveraged than the average sample water  
15 utilities' capital structure. Accordingly, as proposed by the Companies, Global Parent  
16 stockholders bear less financial risk than the sample water utilities.

17

18 **Q. Does financial risk affect Global Parent Utilities' cost of equity?**

19 A. As previously discussed, financial risk is a component of market risk and investors require  
20 compensation for market risk. The capital structures as proposed by the Global Parent  
21 Utilities suggest that its financial risk and cost of equity are less than that of the average  
22 sample water companies. On the contrary, the financial risk associated with Staff's

1 recommended consolidated capital structure for the Global Parent Utilities is greater than  
2 the sample water companies with a corresponding implication for its cost of equity.  
3

4 **Q. Is Staff recommending any financial risk adjustment to the Global Parent Utilities'**  
5 **cost of equity related to financial risk?**

6 A. No. Staff normally applies two criteria in assessing whether application of a downward  
7 financial risk adjustment is appropriate. The first consideration is whether the utility has a  
8 reasonably economical capital structure. Staff considers a capital structure composed of  
9 no more than 60 percent equity to meet this condition. If equity exceeds 60 percent, Staff  
10 considers application of a downward financial risk adjustment to be appropriate if the  
11 utility meets the second criteria. The second condition is whether the utility has access to  
12 equity capital markets. Since the Global Parent Utilities have access to the equity capital  
13 markets through Global Parent, a downward financial risk adjustment to the Global Parent  
14 Utilities cost of equity for each of the individual systems except Santa Cruz and Palo  
15 Verde would be appropriate with the capital structures the Companies propose. However,  
16 Staff's recommended consolidated capital structure composed of 42.2 percent debt and  
17 57.8 percent equity for the Global Parent Utilities is within the range (any composition of  
18 debt and equity between 40 percent and 60 percent) Staff considers to be reasonably  
19 balanced and economically efficient, and thus does not warrant any financial risk  
20 adjustment to the cost of equity. Staff's methodology for applying a financial risk  
21 adjustment encourages a utility with access to the equity capital markets to use that access  
22 to manage its capital structure with economic efficiency and encourages a utility that lacks  
23 access to the equity capital markets to maintain a healthy capital structure.  
24

1 Q. Did Staff consider factors other than the results of its technical models in its cost of  
2 equity analysis?

3 A. Yes. In consideration of the relatively uncertain status of the economy and the market that  
4 currently exists, Staff is proposing an Economic Assessment Adjustment to the cost of  
5 equity. In this case, Staff recommends a 60 basis point (0.6 percent) upward Economic  
6 Assessment Adjustment, as shown in Schedule JAC-3.

7  
8 **IX. RATE OF RETURN RECOMMENDATION**

9 Q. What overall fair value rate of return did Staff determine for the Global Parent  
10 Utilities?

11 A. Staff determined a 7.5 percent FVROR for the Companies, as shown in Schedule JAC-1  
12 and the following table:

13  
14 **Table 3**

15

	<b>Weight</b>	<b>Cost</b>	<b>Weighted Cost</b>
Long-term Debt	57.8%	6.1%	3.5%
Common Equity	42.2%	9.4%	<u>4.0%</u>
<b>Overall FVROR</b>			<b><u>7.5%</u></b>

16

17 **X. STAFF RESPONSE TO COMPANIES' COST OF CAPITAL WITNESS MR.**  
18 **MATTHEW J. ROWELL**

19 Q. Please summarize Mr. Rowell's methodology and recommendations.

20 A. Mr. Rowell recommends an 11.44 percent ROE based on estimates derived from two DCF  
21 analyses (constant growth and multi-stage), three CAPM analyses, and a comparable  
22 earnings analysis. In each of his cost of equity estimation methodologies, Mr. Rowell  
23 utilizes a sample which includes both publicly-traded water and natural gas utility



1 companies; however, the make-up of each sample differs.<sup>15</sup> For purposes of his  
2 recommended cost of equity, Mr. Rowell assumes that realized returns on equity are  
3 reflective of investor expectations of the cost of equity, and he provides one-third weight  
4 to the market-based results derived from his DCF and CAPM analyses and two-thirds  
5 weight to the estimates derived from his comparable earnings analysis. For purposes of  
6 his comparable earnings analysis, Mr. Rowell calculates a weighted average sample ROE,  
7 utilizing fiscal year 2011 financial information. Mr. Rowell's recommended ROE  
8 includes a 65-basis point upward risk adjustment for firm-specific risk.

9  
10 **Q. Does Staff consider it appropriate for this Commission to rely on the cost of equity**  
11 **estimates derived from Mr. Rowell's comparable earnings analysis for purposes of**  
12 **establishing new rates for the Global Parent Utilities in this docket?**

13 **A.** No, and for several reasons. First, the cost of equity is determined by investor activity in  
14 the capital markets, where market forces revealing of investor expectations ultimately  
15 determine the value of equity securities traded on a daily basis. Mr. Rowell's comparable  
16 earnings analysis is predicated on the mistaken notion that realized ROE's, and not  
17 investor expectations, are the determinant of the cost of equity. Second, by its nature the  
18 cost of equity is a forward looking concept, revealing of an investor's opportunity cost  
19 associated with a given equity investment. By using realized ROEs as an indicator of the  
20 cost of equity in his comparable earnings analysis, however, Mr. Rowell uses what he,

---

<sup>15</sup> For purposes of his comparable earnings analysis, Mr. Rowell's sample includes seven water companies (American States Water, Aqua America, California Water, Connecticut Water, Middlesex Water, SJW Corporation and York Water) and seven natural gas companies (Atmos Energy, Laclede Group, New Jersey Resources, Northwest Natural Gas, Piedmont Natural Gas, UGI Corporation and WGL Holdings). (Rowell Direct, pp. 26-27, and Schedule MJR-1) Mr. Rowell's DCF sample includes eight water companies (American States Water, Aqua America, California Water, Connecticut Water, Middlesex Water, SJW Corporation, York Water and Artesian Resources) and seven natural gas companies (Atmos Energy, Laclede Group, New Jersey Resources, Northwest Natural Gas, Piedmont Natural Gas, UGI Corporation and WGL Holdings). (Rowell Direct, Schedules MJR-2, MJR-3 and MJR-4) Mr. Rowell's CAPM sample includes eight water companies (American States Water, Aqua America, California Water, Connecticut Water, Middlesex Water, SJW Corporation, York Water and Artesian Resources) and eight natural gas companies (AGL Resources, Atmos Energy, Laclede Group, New Jersey Resources, Northwest Natural Gas, Piedmont Natural Gas, UGI Corporation and WGL Holdings). (Rowell Direct, Schedule MJR-6)

1 himself, terms “a backward looking accounting measurement” for the cost of equity.<sup>16</sup>  
2 Third, implicit in the adoption of Mr. Rowell’s comparable earnings analysis as a proxy  
3 for the Global Parent Utilities’ cost of equity is the notion that the returns on equity  
4 authorized by other regulatory jurisdictions are appropriate for the Global Parent Utilities,  
5 and that this Commission should embrace them for purposes of setting rates in this docket.  
6 Doing so, however, would be inappropriate, as this Commission has no knowledge of the  
7 rate-setting particulars surrounding each of Mr. Rowell’s sample companies, or their  
8 relevance to the Global Parent Utilities. Lastly, to establish rates based upon Mr. Rowell’s  
9 comparable earnings analysis gives rise to the issue of circularity, wherein returns based  
10 upon comparisons with realized or authorized returns on equity established in other  
11 regulatory proceedings are assumed to be appropriate going forward, irrespective of the  
12 current market level of the cost of equity as determined by investors. To rely on the  
13 results of a comparable earnings analysis serves to ignore market forces, which is why the  
14 Arizona Court of Appeals has strongly criticized the use of a comparable earnings analysis  
15 composed of a sample group of utilities for rate making purposes.<sup>17</sup>  
16

17 **Q. How did Mr. Rowell select his comparable earnings sample?**

18 A. As a universe from which to choose, Mr. Rowell began by considering the six publicly-  
19 traded water utility companies used by Staff in its cost of capital analysis (American  
20 States Water, Aqua America, California Water, Connecticut Water, Middlesex Water and  
21 SJW Corporation), and the nine natural gas companies used by the Residential Utility  
22 Consumer Office (“RUCO”) in its cost of capital analysis (AGL Resources, Atmos  
23 Energy, Laclede Group, New Jersey Resources, Northwest Natural Gas, Piedmont Natural  
24 Gas, South Jersey Industries, Southwest Gas and WGL Holdings). From the group of nine

<sup>16</sup> Rowell Direct, page 4, lines 6-8.

<sup>17</sup> See *Sun City Water Co. v. Arizona Corp. Comm'n*, 26 Ariz. 464, 556 P.2d 1126 (1976).

1 natural gas companies considered, Mr. Rowell removed the companies having the highest  
2 (South Jersey Industries, 14.31%) and lowest (Southwest Gas, 4.51%) realized ROEs, and  
3 he also excluded AGL Resources from consideration due to significant one-time expenses  
4 associated with a merger. Mr. Rowell then replaced AGL Resources in the sample with  
5 another natural gas utility, UGI Corporation.<sup>18</sup>  
6

7 **Q. In his testimony, does Mr. Rowell explain why he selected UGI Corporation to**  
8 **replace AGL Resources in his comparable earnings sample?**

9 A. No. However, based upon his own testimony, one can infer that Mr. Rowell's selection of  
10 UGI Corporation for his comparable earnings sample reflects an element of subjectivity,  
11 and not objectivity, on his part, for when discussing the relative merits of the comparable  
12 earnings method compared to that of the DCF and CAPM models, Mr. Rowell states that  
13 "the only subjective decision the analyst must make is the selection of the companies to  
14 include in the sample."<sup>19</sup>  
15

16 **Q. What water companies does Mr. Rowell include in his comparable earnings sample?**

17 A. Mr. Rowell includes the six publicly-traded water utilities initially considered for  
18 inclusion noted above, plus a seventh water utility, York Water.  
19

20 **Q. In his testimony, does Mr. Rowell indicate the reason for adding York Water to his**  
21 **comparable earnings sample?**

22 A. No, he does not. Mr. Rowell makes no mention of York Water in his discussion of the  
23 selection of his comparable earnings sample (See Rowell Direct, pp. 26-27).  
24

---

<sup>18</sup> Rowell Direct, p. 26.

<sup>19</sup> Rowell Direct, p. 22, lines 19-21.

1 **Q. Please explain Mr. Rowell's comparable earnings methodology and how he arrived**  
2 **at his 10.47 percent estimated cost of equity.**

3 A. Mr. Rowell's comparable earnings methodology employs a weighted average calculation  
4 to estimate the cost of equity. As shown in Schedule MJR-1, Mr. Rowell begins by  
5 calculating the realized ROE for each of his water and natural gas sample companies,  
6 utilizing the realized net income and equity positions of each for the 2011 fiscal year. Mr.  
7 Rowell then calculates an equity weighting factor for each sample company, dividing the  
8 equity position of each by the total combined sample equity (a figure not presented in  
9 MJR-1). For purposes of arriving at his comparable earnings estimated cost of equity, Mr.  
10 Rowell then multiplies the realized ROE achieved by each sample company by its  
11 respective equity weighting factor, with the sum of those values equating to his 10.47  
12 percent weighted average ROE.

13  
14 **Q. In his testimony, does Mr. Rowell state the reason he elected to use a weighted**  
15 **average calculation for his comparable earnings estimate?**

16 A. Yes. Mr. Rowell utilized a weighted average ROE calculation in order to produce an  
17 estimate of the average return accruing to *each dollar* of equity in the sample. He  
18 considered doing so appropriate, as "taking a simple average of returns produces a number  
19 that overstates the influence of the smaller utilities in the sample." (See Rowell Direct, p.  
20 28, lines 16-21)

21  
22 **Q. Has Staff prepared a schedule which would shed additional light upon Mr. Rowell's**  
23 **comparable earnings methodology?**

24 A. Yes. Staff has prepared a restatement of Mr. Rowell's Schedule MJR-1 for that purpose.  
25 Although his comparable earnings sample consists of seven water companies and seven  
26 natural gas companies, as shown in Exhibit JAC-A, Mr. Rowell's use of a weighted

1 average calculation significantly skews the data such that his comparable earnings  
2 estimate is disproportionately influenced by the natural gas companies in the sample.  
3 Specifically, the relative weighting of the gas sample, as measured by common equity, is  
4 more than three times greater (75.45%) that of the water sample (24.55%). That the  
5 average (i.e., simple average) realized return on equity of the gas sample (10.75%)  
6 exceeds by 139 basis points that of the water sample (9.36%) only serves to further  
7 exacerbate this disproportionate influence.<sup>20</sup>

8  
9 **Q. What is Staff's comment on Mr. Rowell's replacement of AGL Resources with UGI  
10 Corporation in his comparable earnings sample?**

11 A. As noted earlier, Mr. Rowell excluded AGL Resources from consideration for his  
12 comparable earnings sample, replacing it with UGI Corporation. As shown in Exhibit  
13 JAC-A, UGI Corporation experienced a realized ROE of 11.78 percent in fiscal year 2011.  
14 Although another natural gas company in Mr. Rowell's sample experienced a higher  
15 realized ROE (New Jersey Resources, 13.05%), on a weighted average basis no other  
16 company in the sample had a larger impact upon Mr. Rowell's comparable earnings  
17 estimate than did UGI, accounting for fully 19.73 percent of the sample weighted average  
18 ROE ( $2.07\% / 10.49\% = 19.73\%$ ).

19  
20 **Q. Does Staff have any additional observations concerning Mr. Rowell's inclusion of  
21 UGI Corporation in his comparable earnings sample?**

22 A. Yes. As noted, of the fourteen companies selected by Mr. Rowell for inclusion in his  
23 comparable earnings sample, UGI Corporation had the single largest impact upon his  
24 weighted average estimate. However, among UGI's five operating segments, two are not

---

<sup>20</sup> Differences between the 10.49 percent sample weighted average ROE, as shown in Exhibit JAC-1, and the 10.47 percent weighted average ROE, as shown in Schedule MJR-1, are attributable to Mr. Rowell having used total equity, rather than common equity, in his ROE calculations.

1 subject to domestic rate regulation in the United States; UGI's International Propane  
2 segment, and its Midstream & Marketing segment, which accounted for 17 and 22  
3 percent, respectively, of 2011 UGI corporate net income.<sup>21</sup> For purposes of his  
4 comparable earnings analysis, therefore, Mr. Rowell should have made a downward  
5 adjustment of 39 percent (17% + 22%) to both UGI's net income and an appropriate  
6 downward adjustment to common equity to reflect this fact, but no such adjustments were  
7 made. As a consequence, as presented in Schedule MJR-1, the weighted average ROE for  
8 UGI Corporation has been significantly overstated, resulting in a corresponding  
9 overstatement to Mr. Rowell's weighted average sample ROE estimate.

10  
11 **Q. Did Staff conduct research to see if, like UGI, the other natural gas companies**  
12 **included in Mr. Rowell's comparable earnings sample had fiscal year 2011**  
13 **operational income derived from non-regulated segments, and if so, what were**  
14 **Staff's findings?**

15 A. Yes. As shown in Exhibit JAC-B, with the exception of only one company (Piedmont  
16 Natural Gas), each of Mr. Rowell's comparable earnings gas sample companies derived a  
17 portion of their fiscal 2011 operational revenues from non-regulated operations, with the  
18 overall average (i.e., arithmetic mean) being 35.85 percent of total revenues for all seven  
19 companies combined -- including Piedmont Natural Gas.

20  
21 **Q. Based on the data shown in Exhibit JAC-B, what additional conclusions can be**  
22 **drawn regarding Mr. Rowell's comparable earnings analysis?**

23 A. The data presented in Exhibit JAC-B provide further evidence that Mr. Rowell's  
24 comparable earnings estimate for the cost of equity has been overstated. Having utilized a  
25 weighted average methodology for purposes of his comparable earnings analysis, Mr.

---

<sup>21</sup> 2011 UGI Annual Report to Shareholders.

1 Rowell should have made an adjustment to remove that portion of the earnings attributable  
2 to non-regulated operations from net income, and a corresponding reduction to common  
3 equity for each sample gas company. In failing to do so, Mr. Rowell's weighted average  
4 comparable earnings ROE is significantly overstated.

5  
6 **Q. Turning now to Mr. Rowell's DCF analyses, does his DCF sample consist of the same**  
7 **fourteen companies selected for inclusion in his comparable earnings sample?**

8 A. No, it does not. Although Mr. Rowell states in his testimony that the same companies  
9 presented in his comparable earnings sample are used in his DCF analyses (See Rowell  
10 Direct, p. 30, lines 2-4), that statement is incomplete, as a review of Schedules MJR-2,  
11 MJR-3 and MJR-4 reveal that his DCF sample consists of fifteen companies; the same  
12 fourteen (7 water, 7 gas) companies making up his comparable earnings sample, plus an  
13 additional water company, Artesian Resources Corporation.

14  
15 **Q. In his testimony, does Mr. Rowell state why he elected to include Artesian Resources**  
16 **in his DCF sample?**

17 A. No. The Direct testimony sponsored by Mr. Rowell makes no mention of Artesian  
18 Resources, and one learns that it has been included in his DCF sample only when referring  
19 to DCF schedules MJR-2, MJR-3, and MJR-4.

20  
21 **Q. Has Staff reviewed the above referenced schedules to determine if Mr. Rowell's**  
22 **inclusion of Artesian Resources in his DCF sample served to benefit his overall DCF**  
23 **results?**

24 A. Yes. Review of Schedule MJR-2 indicates that Artesian Resources has the second highest  
25 current dividend yield (3.90%) among the eight sample water utilities. Review of  
26 Schedule MJR 3 indicates that Artesian Resources' dividend growth rate (4.81%)

1 represented the median sample estimate among the combined 15 sample companies.  
2 Finally, review of Schedule MJR-4 indicates that Artesian Resources' multistage DCF  
3 growth rate (9.90%) placed it among the top one-third among all sample companies.  
4 Based upon this cursory review, it appears that inclusion of Artesian Water in Mr.  
5 Rowell's DCF sample served to benefit his overall DCF estimate.

6  
7 **Q. For purposes of estimating the beta coefficient in his CAPM analysis, does Mr.**  
8 **Rowell use the same sample companies as those which were included in his DCF**  
9 **sample?**

10 **A.** No. Although Mr. Rowell claims to have used the "same sample of utilities" in his CAPM  
11 analysis as those which were included in his Comparable Earnings and DCF analyses  
12 (Rowell Direct, p. 45, lines 23-24), a review of Schedule MJR-6 indicates that there are  
13 actually sixteen companies in his CAPM sample - the fifteen companies included in his  
14 DCF sample plus the natural gas company which he had previously excluded from his  
15 comparable earnings sample, AGL Resources.

16  
17 **Q. Does this mean that Mr. Rowell has included both UGI Corporation and AGL**  
18 **Resources in the same sample?**

19 **A.** Yes. Although Mr. Rowell had previously excluded AGL Resources from his comparable  
20 earnings sample and replaced it with UGI Corporation, he has included both companies in  
21 his CAPM sample. A review of Schedule MJR-6 shows that both are included in the  
22 sample, with AGL Resources having the highest beta coefficient (0.75) of all the natural  
23 gas companies included in the sample.



1 Q. Does Mr. Rowell provide an explanation as to why he has included AGL Resources  
2 in his CAPM sample?

3 A. No.  
4

5 Q. Is it a concern that Mr. Rowell used different companies in his various samples  
6 without an adequate explanation?

7 A. Yes. In this instance, there is no apparent good reason for the variances in the samples  
8 selected.  
9

10 Q. Does Staff have any comments on Mr. Rowell's sole reliance on analysts' forecasts to  
11 estimate DPS growth in his constant growth DCF analysis?

12 A. Yes. Generally, analysts' forecasts are known to be overly optimistic. Sole use of  
13 analysts' forecasts to calculate the expected dividend growth rate, (g), serves to inflate that  
14 component of the DCF model and, consequently, the estimated cost of equity. Also,  
15 exclusive reliance on analysts' forecasts of earnings growth to forecast DPS is  
16 inappropriate because it assumes that investors do not look at other relevant information  
17 such as historical dividend and earnings growth.  
18

19 Q. How does Staff respond to Mr. Rowell's statement that "the value g in the DCF  
20 model is defined as the *expected future* growth rate," and that analysts' forecasts are  
21 "the best proxy we have for the expected future growth rate of a given company"?<sup>22</sup>

22 A. The appropriate growth rate to use in the DCF model is the dividend growth rate expected  
23 by *investors*, not by analysts. Investors are assumed to be rational, and as such will want  
24 to take into consideration all relevant available information prior to making an investment

---

<sup>22</sup> Rowell Direct, page 31, lines 6-9.

1 decision. Therefore, it is reasonable to assume that investors would consider both  
2 historical measures of past growth, as well as analysts' forecasts of future growth.

3  
4 **Q. Does Staff have evidence to support its assertion that exclusive reliance on analysts'**  
5 **forecasts of earnings growth in the DCF model would result in inflated cost of equity**  
6 **estimates?**

7 A. Yes. Experts in the financial community have commented on the optimism in analysts'  
8 forecasts of future earnings.<sup>23</sup> A study cited by David Dreman in his book *Contrarian*  
9 *Investment Strategies: The Next Generation* found that *Value Line* analysts were  
10 optimistic in their forecasts by 9 percent annually, on average for the 1987 – 1989 period.  
11 Another study conducted by David Dreman found that between 1982 and 1997, analysts  
12 overestimated the growth of earnings of companies in the S&P 500 by 188 percent.

13 Burton Malkiel, of Princeton University, conducted a study of the 1- and 5-year earnings  
14 forecasts made by some of the most respected names in the investment business. His  
15 results showed that when compared with actual earnings growth rates, the 5-year forecasts  
16 made by professional analysts were far less accurate than estimates derived from several  
17 naïve forecasting models, such as the long-run growth rate in national income. In the  
18 following excerpt from his book, *A Random Walk Down Wall Street*, Professor Malkiel  
19 discusses the results of his study:

20 When confronted with the poor record of their five-year growth  
21 estimates, *the security analysts honestly, if sheepishly, admitted*  
22 *that five years ahead is really too far in advance to make reliable*  
23 *projections.* They protested that although long-term projections  
24 are admittedly important, they really ought to be judged on their  
25 ability to project earnings changes one year ahead. Believe it or

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<sup>23</sup> See Seigel, Jeremy J. *Stocks for the Long Run*. 2002. McGraw-Hill. New York. p. 100. Dreman, David. *Contrarian Investment Strategies: The Next Generation*. 1998. Simon & Schuster. New York. pp. 97-98. Malkiel, Burton G. *A Random Walk Down Wall Street*. 2003. W.W. Norton & Co. New York. p. 175. Testimony of Professors Myron J. Gordon and Lawrence I. Gould, consultant to the Trial Staff (Common Carrier Bureau), FCC Docket 79-63, p. 95.

1 not, it turned out that their one-year forecasts were even worse than  
2 their five-year projections.

3 The analysts fought back gamely. They complained that it was  
4 unfair to judge their performance on a wide cross section of  
5 industries, because earnings for high-tech firms and various  
6 "cyclical" companies are notoriously hard to forecast. "Try us on  
7 utilities," one analyst confidently asserted. At the time they were  
8 considered among the most stable group of companies because of  
9 government regulation. So we tried it and they didn't like it. Even  
10 the forecasts for the stable utilities were far off the mark.<sup>24</sup>  
11 (Emphasis added)

12  
13 **Q. Are investors aware of the problems related to analysts' forecasts?**

14 A. Yes. In addition to books, there are numerous published articles appearing in *The Wall*  
15 *Street Journal* and other financial publications that cast doubt on the accuracy of research  
16 analysts' forecasts.<sup>25</sup> Investors, being keenly aware of these inherent biases in forecasts,  
17 will use other methods to assess future growth.

18  
19 **Q. Should DPS growth be considered in a DCF analysis?**

20 A. Yes. As previously stated in section VI of this testimony, the current market price of a  
21 stock is equal to the present value of all expected future dividends, not future earnings.  
22 Professor Jeremy Siegel from the Wharton School of Finance stated:

23  
24 Note that the price of the stock is always equal to the present value  
25 of all future *dividends* and not the present value of future earnings.  
26 Earnings not paid to investors can have value only if they are paid  
27 as dividends or other cash disbursements at a later date. Valuing

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<sup>24</sup> Malkiel, Burton G. *A Random Walk Down Wall Street*. 2003. W.W. Norton & Co. New York. p. 175

<sup>25</sup> See Smith, Randall & Craig, Suzanne. "Big Firms Had Research Ploy: Quiet Payments Among Rivals." *The Wall Street Journal*. April 30, 2003. Brown, Ken. "Analysts: Still Coming Up Rosy." *The Wall Street Journal*. January 27, 2003. p. C1. Karmin, Craig. "Profit Forecasts Become Anybody's Guess." *The Wall Street Journal*. January 21, 2003. p. C1. Gasparino, Charles. "Merrill Lynch Investigation Widens." *The Wall Street Journal*. April 11, 2002. p. C4. Elstein, Aaron. "Earnings Estimates Are All Over the Map." *The Wall Street Journal*. August 2, 2001. p. C1. Dreman, David. "Don't Count on those Earnings Forecasts." *Forbes*. January 26, 1998. p. 110.

1 stock as the present discounted value of future earnings is  
2 manifestly wrong and greatly overstates the value of the firm.<sup>26</sup>  
3

4 For valuation purposes, therefore, earnings paid out in the form of a dividend have  
5 paramount relevancy to investors. Dividends, unlike earnings, cannot be manipulated or  
6 overstated. Thus, historical DPS growth should receive appropriate consideration when  
7 estimating the market cost of equity in the DCF model.  
8

9 **Q. Turning to Mr. Rowell's CAPM analyses, what risk-free rates does Mr. Rowell use in**  
10 **his three CAPM methodology?**

11 A. In his CAPM analyses, Mr. Rowell uses historical risk-free rates ( $R_f$ ) in each of his three  
12 CAPM analyses. The risk-free rates used represent a 32-year average intermediate-term  
13 (8.4%) and long-term (10.2%) U.S. Treasury rate, covering the period January 1, 1980 –  
14 December 31, 2011.  
15

16 **Q. Does Staff agree with Mr. Rowell's use of an historical risk-free interest rate?**

17 A. No. The appropriate risk-free interest rate to be used is the current rate borne by investors  
18 in the market. Use of an historical risk-free rate in the CAPM should be avoided, as it  
19 reflects stale information. Cost of equity has a positive correlation with interest rates both  
20 of which vary over time.

---

<sup>26</sup> Seigel, Jeremy J. Stocks for the Long Run. 2002. McGraw-Hill. New York. P. 93.

1 Q. In his testimony, Mr. Rowell asserts that the small size of the Global Parent Utilities  
2 relative to the sample companies warrants an upward adjustment to the cost of  
3 equity in order to conform to the “corresponding risk” standard as established by  
4 the *Hope* and *Bluefield* decisions.<sup>27</sup> Does Staff agree?

5 A. While Staff would agree with the general proposition that smaller companies are riskier  
6 than larger companies, empirical research has demonstrated that a small company risk  
7 premium adjustment to the cost of equity is unwarranted for regulated utilities. Annie  
8 Wong, of Western Connecticut State University, conducted a study on utility stocks to  
9 determine if the so-called size effect exists in the utility industry, and she writes as  
10 follows:

11 The fact that the two samples show different, though weak, results  
12 indicates that utility and industrial stocks do not share the same  
13 characteristics. First, given firm size, utility stocks are consistently less  
14 risky than industrial stocks. Second, industrial betas tend to decrease with  
15 firm size but utility betas do not. These findings may be attributed to the  
16 fact that all public utilities operate in an environment with regional  
17 monopolistic power and regulated financial structure. As a result, the  
18 business and financial risks are very similar among the utilities regardless  
19 of their size. Therefore, utility betas would not necessarily be expected to  
20 be related to firm size.

21  
22 The object of this study is to examine if the size effect exists in the utility  
23 industry. After controlling for equity values, there is some weak evidence  
24 that firm size is a missing factor from the CAPM for the industrial but not  
25 for the utility stocks. *This implies that although the size phenomenon has*  
26 *been strongly documented for industrials, the findings suggest that there is*  
27 *no need to adjust for the firm size in utility regulations.* [emphasis  
28 added].<sup>28</sup>

29  
30  
31  
32  

---

<sup>27</sup> Rowell Direct, p. 49, lines 7-14.

<sup>28</sup> Annie Wong, “Utility Stock and the Size Effect: An Empirical Analysis,” *Journal of the Midwest Finance Association*, (1993), p.98.

1 To underscore this point, Paschall and Hawkins write as follows:

2 A size premium does not automatically apply in every case. Each privately  
3 held company should be analyzed to determine if a size premium is  
4 appropriate in its particular case. There can be unusual circumstances  
5 where a small company has risk characteristics that make it far less risky  
6 than the average company, warranting the use of a very low equity risk  
7 premium. One possible example of this is a private water utility  
8 (monopoly situation, very low risk, near-guarantee of payments).<sup>29</sup>

9  
10 **Q. Does Staff have any comment regarding Mr. Rowell's proposed 120 basis point**  
11 **upward Arizona Risk Premium<sup>30</sup> adjustment to the cost of equity to compensate the**  
12 **Global Parent Utilities for regulatory/small company risk?**

13 **A.** Yes. The Commission previously ruled in Decision No. 64282<sup>31</sup> for Arizona Water that  
14 firm size does not warrant recognition of a risk premium stating, "We do not agree with  
15 the Company's proposal to assign a risk premium to Arizona Water based on its size  
16 relative to other publicly traded water utilities...." The Commission confirmed its  
17 previous ruling in Decision No. 64727<sup>32</sup> for Black Mountain Gas agreeing with Staff that  
18 "the 'firm size phenomenon' does not exist for regulated utilities, and that therefore there  
19 is no need to adjust for risk for small firm size in utility regulation." All companies have  
20 firm-specific risks; therefore, the existence of unique risks for a company does not lead to  
21 the conclusion that its total risk is greater than other entities. Moreover, as previously  
22 discussed, investors cannot expect compensation for firm-specific risk since it can be  
23 eliminated through diversification. Finally, as discussed above, the Global Parent Utilities  
24 are a subsidiary of GWR and ultimately GWRI, and the latter (i.e., Global Parent) is a

---

<sup>29</sup> Michael A. Paschall and George B. Hawkins, "Do Smaller Companies Warrant a Higher Discount Rate for Risk?: The 'Size Effect' Debate," *CCH Business Valuation Alert*, Vol. 1, Issue No. 2, December 1999.

<sup>30</sup> The 120 basis point upward adjustment to the cost of equity is referred to as such in the table appearing on p. 53 of Mr. Rowell's Direct testimony.

<sup>31</sup> Dated December 28, 2001.

<sup>32</sup> Dated April 17, 2002.

1 publicly-traded entity listed on the Toronto Stock Exchange. Therefore, the Global Parent  
2 Utilities are similarly situated to the subsidiaries of the sample water companies.

3

4 **XI. CONCLUSION**

5 **Q. Please summarize Staff's recommendations.**

6 A. Staff recommends that the Commission adopt a 7.5 percent FVROR for the Global Parent  
7 Utilities based on a consolidated capital structure composed of 57.8 percent debt and 42.2  
8 percent equity, Staff's 9.4 percent cost of equity estimate and 6.1 percent cost of debt.

9

10 **Q. Does this conclude your direct testimony?**

11 A. Yes, it does.

**Global Utilities Cost of Capital Calculation**  
**Capital Structure**  
**And Weighted Average Cost of Capital**  
**Staff Recommended and Company Proposed**

[A]	[B]	[C]	[D]
<u>Description</u>	<u>Weight (%)</u>	<u>Cost</u>	<u>Weighted Cost</u>
<b>Staff Recommended Structure</b>			
Debt	57.8%	6.1%	3.5%
Common Equity	42.2%	9.4%	<u>4.0%</u>
Weighted Average Cost of Capital			<b>7.5%</b>
<b>Company Proposed Structures:</b>			
Palo Verde			
Debt	51.7%	6.36%	3.29%
Common Equity	48.3%	11.44%	<u>5.52%</u>
Weighted Average Cost of Capital			<b>8.81%</b>
Santa Cruz			
Debt	54.5%	6.58%	3.59%
Common Equity	45.5%	11.44%	<u>5.21%</u>
Weighted Average Cost of Capital			<b>8.79%</b>
Valencia - Town Division			
Debt	21.3%	7.25%	1.55%
Common Equity	78.7%	11.44%	<u>9.00%</u>
Weighted Average Cost of Capital			<b>10.55%</b>
Valencia - Buckeye Division			
Debt	5.1%	6.29%	0.32%
Common Equity	94.9%	11.44%	<u>10.86%</u>
Weighted Average Cost of Capital			<b>11.18%</b>
Greater Tonopah			
Debt	14.0%	6.32%	0.88%
Common Equity	86.0%	11.44%	<u>9.84%</u>
Weighted Average Cost of Capital			<b>10.72%</b>
Willow Valley			
Debt	12.5%	4.72%	0.59%
Common Equity	87.5%	11.44%	<u>10.01%</u>
Weighted Average Cost of Capital			<b>10.60%</b>
Northern Scottsdale			
Debt	0.0%	0.0%	0.00%
Common Equity	100.0%	11.4%	<u>11.44%</u>
Weighted Average Cost of Capital			<b>11.44%</b>

[D] : [B] x [C]

Supporting Schedules: JAC-3 and JAC-4.



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Global Utilities Cost of Capital Calculation  
Average Capital Structure of Sample Water Utilities

[A]	[B]	[C]	[D]
<u>Company</u>	<u>Debt</u>	<u>Common Equity</u>	<u>Total</u>
American States Water	43.3%	56.7%	100.0%
California Water	54.2%	45.8%	100.0%
Aqua America	55.2%	44.8%	100.0%
Connecticut Water	55.3%	44.7%	100.0%
Middlesex Water	43.1%	56.9%	100.0%
SJW Corp	<u>56.2%</u>	<u>43.8%</u>	<u>100.0%</u>
Average Sample Water Utilities	<b>51.2%</b>	<b>48.8%</b>	<b>100.0%</b>
Global - Consolidated Capital Structure	<b>57.8%</b>	<b>42.2%</b>	<b>100.0%</b>

Source:

Sample Water Companies from Value Line

Global Utilities Cost of Capital Calculation  
 Growth in Earnings and Dividends  
 Sample Water Utilities

[A]	[B]	[C]	[D]	[E]
	Dividends Per Share 2002 to 2012	Dividends Per Share Projected	Earnings Per Share 2002 to 2012	Earnings Per Share Projected
<u>Company</u>	<u>DPS<sup>1</sup></u>	<u>DPS<sup>1</sup></u>	<u>EPS<sup>1,2</sup></u>	<u>EPS<sup>1</sup></u>
American States Water	3.9%	6.0%	7.7%	1.2%
California Water	1.2%	7.4%	5.0%	5.8%
Aqua America	7.7%	8.3%	7.3%	8.0%
Connecticut Water	1.7%	2.8%	3.2%	2.1%
Middlesex Water	1.6%	1.6%	2.1%	5.0%
SJW Corp	4.4%	4.9%	4.2%	6.3%
Average Sample Water Utilities	3.4%	5.2%	4.9%	4.7%

1 Value Line

2 Negative values are inconsistent with the DCF, accordingly, they are excluded from the average.

Global Utilities Cost of Capital Calculation  
Sustainable Growth  
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]
Company	Retention Growth 2002 to 2012 br	Retention Growth Projected br	Stock Financing Growth vs	Sustainable Growth 2002 to 2012 br + vs	Sustainable Growth Projected br + vs
American States Water	3.8%	5.6%	1.6%	5.4%	7.2%
California Water	2.4%	3.2%	1.5%	3.9%	4.7%
Aqua America	3.9%	4.4%	1.9%	5.8%	6.3%
Connecticut Water	2.0%	3.0%	3.6%	5.6%	6.7%
Middlesex Water	1.2%	2.8%	2.8%	4.0%	5.6%
SJW Corp	<u>3.5%</u>	<u>3.8%</u>	<u>0.1%</u>	<u>3.6%</u>	<u>3.9%</u>
Average Sample Water Utilities	<b>2.8%</b>	<b>3.8%</b>	<b>1.9%</b>	<b>4.7%</b>	<b>5.7%</b>

[B]: Value Line

[C]: Value Line

[D]: Value Line and MSN Money

[E]: [B]+[D]

[F]: [C]+[D]

Global Utilities Cost of Capital Calculation  
 Selected Financial Data of Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]	[G]
<u>Company</u>	<u>Symbol</u>	<u>Spot Price</u> <u>4/3/2013</u>	<u>Book Value</u>	<u>Mkt To</u> <u>Book</u>	<u>Value Line</u> <u>Beta</u> <u><math>\beta</math></u>	<u>Raw</u> <u>Beta</u> <u><math>\beta_{raw}</math></u>
American States Water	AWR	55.58	23.12	2.4	0.70	0.52
California Water	CWT	19.69	11.45	1.7	0.65	0.45
Aqua America	WTR	31.27	9.74	3.2	0.60	0.37
Connecticut Water	CTWS	28.30	13.81	2.0	0.75	0.60
Middlesex Water	MSEX	19.23	11.82	1.6	0.70	0.52
SJW Corp	SJW	25.89	15.02	1.7	0.85	0.75
Average				2.1	0.71	0.53

[C]: Msn Money

[D]: Value Line

[E]: [C] / [D]

[F]: Value Line

[G]: (-0.35 + [F]) / 0.67

Global Utilities Cost of Capital Calculation  
Calculation of Expected Infinite Annual Growth in Dividends  
Sample Water Utilities

[A]	[B]
<u>Description</u>	<u>g</u>
DPS Growth - Historical <sup>1</sup>	3.4%
DPS Growth - Projected <sup>1</sup>	5.2%
EPS Growth - Historical <sup>1</sup>	4.9%
EPS Growth - Projected <sup>1</sup>	4.7%
Sustainable Growth - Historical <sup>2</sup>	4.7%
<u>Sustainable Growth - Projected<sup>2</sup></u>	<u>5.7%</u>
Average	<b>4.8%</b>

1 Schedule JAC-5

2 Schedule JAC-6

Global Utilities Cost of Capital Calculation  
 Multi-Stage DCF Estimates  
 Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]	[H]	[I]
<u>Company</u>	Current Mkt. Price ( $P_0$ ) <sup>1</sup>	Projected Dividends <sup>2</sup> (Stage 1 growth)				Stage 2 growth <sup>3</sup>	Equity Cost Estimate ( $K$ ) <sup>4</sup>
	4/3/2013	$d_1$	$d_2$	$(D_t)$		$(g_n)$	
				$d_3$	$d_4$		
American States Water	55.6	1.30	1.37	1.43	1.50	6.5%	8.7%
California Water	19.7	0.66	0.69	0.72	0.76	6.5%	9.7%
Aqua America	31.3	0.67	0.70	0.73	0.77	6.5%	8.5%
Connecticut Water	28.3	0.98	1.03	1.08	1.13	6.5%	9.8%
Middlesex Water	19.2	0.75	0.78	0.82	0.86	6.5%	10.2%
SJW Corp	25.9	0.74	0.78	0.82	0.86	6.5%	9.2%

Average 9.3%

$$P_0 = \sum_{t=1}^n \frac{D_t}{(1+K)^t} + \frac{D_n(1+g_n)}{K-g_n} \left[ \frac{1}{(1+K)} \right]^n$$

Where :  $P_0$  = current stock price  
 $D_t$  = dividends expected during stage 1  
 $K$  = cost of equity  
 $n$  = years of non - constant growth  
 $D_n$  = dividend expected in year n  
 $g_n$  = constant rate of growth expected after year n

1 [B] see Schedule JAC-7

2 Derived from Value Line Information

3 Average annual growth in GDP 1929 - 2011 in current dollars.

4 Internal Rate of Return of Projected Dividends



**Staff Restatement of Matthew J. Rowell Schedule MJR-1  
Calculation of Comparable Earnings ROE**

		Fiscal Year 2011				
Sample Companies		[A]	[B]	[C]	[D]	[E]
		Net Income	Common Equity	Realized ROE	Equity Weight	Weighted ROE
1	American States Water	AWR \$ 45,859	\$ 408,666	11.22%	3.63%	0.41%
2	Aqua America	WTR 143,069	1,251,313	11.43%	11.11%	1.27%
3	California Water	CWT 37,712	449,829	8.38%	3.99%	0.33%
4	Connecticut Water	CTWS 11,262	118,189	9.53%	1.05%	0.10%
5	Middlesex Water	MSEX 13,241	176,981	7.48%	1.57%	0.12%
6	SJW Corp	SJW 20,878	264,004	7.91%	2.34%	0.19%
7	York Water Co.	YORW 9,084	95,265	9.54%	0.85%	0.08%
8	Atmos Energy Corp	ATO 207,601	2,255,421	9.20%	20.03%	1.84%
9	Laclede Group, inc.	LG 63,825	573,331	11.13%	5.09%	0.57%
10	New Jersey Resources Corporation	NJR 101,299	776,257	13.05%	6.89%	0.90%
11	Northwest Natural Gas Co.	NWN 63,898	714,488	8.94%	6.34%	0.57%
12	Piedmont Natural Gas Company	PNY 113,568	996,923	11.39%	8.85%	1.01%
13	UGI CORP	UGI 232,900	1,977,700	11.78%	17.56%	2.07%
14	WGL Holdings, inc	WGL 117,050	1,202,715	9.73%	10.68%	1.04%
15						
16	Sample Total Common Equity		\$ 11,261,082		100.00%	
17						
18	Sample Weighted Average ROE					<u>10.49%</u>

Relative Weightings: Water Sample	24.55%
Gas Sample	75.45%

Average Realized ROE: Water Sample	9.36%
Gas Sample	10.75%

**Key:**

- [A]: Net Income (Source: SEC Form 10-K, Income Statement, Fiscal Year 2011)
- [B]: Common Equity (Source: SEC Form 10-K, Balance Sheet, for period ending Fiscal Year 2011)
- [C]: [A]/[B]
- [D]: [B]/Sample Total Common Equity
- [E]: [C]\*[D]

Note: Differences between the 10.49% sample weighted average ROE above and the 10.47% weighted ROE, as shown in Schedule MJR-1, are attributable to Mr. Rowell basing his calculations on Total Equity, not Common Equity.

Regulated and Non-regulated Operating Revenues  
of Mr. Rowell's Comparable Earnings  
Natural Gas Sample Companies

		Operating Revenues -- Fiscal Year 2011			
Company	Ticker	Total Revenues (\$ 1,000s)	Nonregulated Revenues (\$ 1,000s)	Nonregulated %	
1	Atmos Energy	ATO	\$ 4,347,634	\$ 1,729,513	39.78%
2	Laclede Group	LG	1,603,307	669,375	41.75%
3	New Jersey Resources	NJR	3,009,209	1,996,997	66.36%
4	Northwest Natural Gas	NWN	369,433	26,463	7.16%
5	Piedmont Natural Gas	PNY	1,433,905	-	0.00%
6	UGI Corp.	UGI	6,091,300	2,548,400	41.84%
7	WGL Holdings	WGL	2,751,501	1,486,921	54.04%
8					
9	<b>Sample Average</b>				<b>35.85%</b>

Source: Form 10-Ks filed with the SEC by ATO, LG, NJR, NWN, PNY, UGI and WGL,  
for the 2011 Fiscal Year.



BEFORE THE ARIZONA CORPORATION COMMISSION

BOB STUMP  
Chairman  
GARY PIERCE  
Commissioner  
BRENDA BURNS  
Commissioner  
BOB BURNS  
Commissioner  
SUSAN BITTER SMITH  
Commissioner

IN THE MATTER OF THE APPLICATION OF )  
VALENCIA WATER COMPANY - TOWN )  
DIVISION FOR THE ESTABLISHMENT OF )  
JUST AND REASONABLE RATES AND )  
CHARGES FOR UTILITY SERVICE DESIGNED )  
TO REALIZE A REASONABLE RATE OF )  
RETURN ON THE FAIR VALUE OF ITS )  
PROPERTY THROUGHOUT THE STATE OF )  
ARIZONA )

DOCKET NO. W-01212A-12-0309

IN THE MATTER OF THE APPLICATION OF )  
GLOBAL WATER-PALO VERDE UTILITIES )  
COMPANY FOR THE ESTABLISHMENT OF )  
JUST AND REASONABLE RATES AND )  
CHARGES FOR UTILITY SERVICE )  
DESIGNED TO REALIZE A REASONABLE )  
RATE OF RETURN ON THE FAIR VALUE OF )  
ITS PROPERTY THROUGHOUT THE )  
STATE OF ARIZONA )

DOCKET NO. SW-20445A- 12-0310

IN THE MATTER OF THE APPLICATION OF )  
WATER UTILITY OF NORTHERN )  
SCOTTSDALE FOR APPROVAL OF A RATE )  
INCREASE )

DOCKET NO. SW-20445A- 12-0311

IN THE MATTER OF THE APPLICATION OF )  
WATER UTILITY OF GREATER TONOPAH, )  
INC. FOR THE ESTABLISHMENT OF JUST )  
AND REASONABLE RATES AND CHARGES )  
FOR UTILITY SERVICE DESIGNED TO )  
REALIZE A REASONABLE RATE OF )  
RETURN ON THE FAIR VALUE OF ITS )  
PROPERTY THROUGHOUT THE STATE OF )  
ARIZONA )

DOCKET NO. SW-20445A- 12-0312

IN THE MATTER OF THE APPLICATION OF )  
VALENCIA WATER COMPANY - GREATER )  
BUCKEYE DIVISION FOR THE ESTABLISH- )  
MENT OF JUST AND REASONABLE RATES )  
AND CHARGES FOR UTILITY SERVICE )  
DESIGNED TO REALIZE A REASONABLE )  
RATE OF RETURN ON THE FAIR VALUE OF )  
ITS PROPERTY THROUGHOUT THE )  
STATE OF ARIZONA )

DOCKET NO. SW-20445A- 12-0313

IN THE MATTER OF THE APPLICATION OF )  
GLOBAL WATER-SANTA CRUZ WATER )  
COMPANY FOR THE ESTABLISHMENT OF )  
JUST AND REASONABLE RATES AND )  
CHARGES FOR UTILITY SERVICE )  
DESIGNED TO REALIZE A REASONABLE )  
RATE OF RETURN ON THE FAIR VALUE OF )  
ITS PROPERTY THROUGHOUT THE )  
STATE OF ARIZONA )

DOCKET NO. SW-20445A- 12-0314

IN THE MATTER OF THE APPLICATION OF )  
WILLOW VALLEY WATER CO., INC. FOR )  
THE ESTABLISHMENT OF JUST AND )  
REASONABLE RATES AND CHARGES FOR )  
UTILITY SERVICE DESIGNED TO REALIZE )  
A REASONABLE RATE OF RETURN ON THE )  
FAIR VALUE OF ITS PROPERTY )  
THROUGHOUT THE STATE OF ARIZONA )

DOCKET NO. SW-20445A- 12-0315

TESTIMONY  
IN SUPPORT OF  
THE PROPOSED SETTLEMENT AGREEMENT  
STEVEN M. OLEA  
DIRECTOR  
UTILITIES DIVISION  
ARIZONA CORPORATION COMMISSION

AUGUST 21, 2013

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**EXECUTIVE SUMMARY  
GLOBAL WATER & WASTEWATER UTILITIES  
DOCKET NO. W-01212A-12-0309, ET. AL.**

Mr. Olea's testimony supports the adoption of the Settlement Agreement ("Agreement") as proposed by the Signatories in this case. This testimony describes the settlement process as open, candid, transparent and inclusive of all parties to this case. Mr. Olea explains why Staff believes this Agreement is in the public interest.

Mr. Olea's testimony recommends that the Commission adopt the Agreement as proposed.

1     **SECTION I - INTRODUCTION**

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

3     A.     Steven M. Olea, 1200 West Washington, Phoenix, Arizona, 85007.

4  
5     **Q.     By whom and in what capacity are you employed?**

6     A.     I am employed by the Arizona Corporation Commission ("Commission") as the Director of  
7             the Utilities Division.

8  
9     **Q.     Please state your educational background.**

10    A.     I graduated from Arizona State University ("ASU") in 1976 with a Bachelors Degree in Civil  
11             Engineering. From 1976 to 1978 I obtained 47 graduate hours of credit in Environmental  
12             Engineering at ASU.

13  
14    **Q.     Please state your pertinent work experience.**

15    A.     From April 1978 to October 1978 I worked for the Engineering Services Section of the  
16             Bureau of Air Quality Control in the Arizona Department of Health Services ("ADHS"). My  
17             responsibilities were to inspect air pollution sources to determine compliance with ADHS  
18             rules and regulations.

19  
20             From November 1978 to July 1982 I was with the Technical Review Unit of the Bureau of  
21             Water Quality Control ("BWQC") in ADHS (this is now part of the Arizona Department of  
22             Environmental Quality ["ADEQ"]). My responsibilities were to review water and  
23             wastewater construction plans for compliance with ADHS rules, regulations, and  
24             Engineering Bulletins.

25



1 From July 1982 to August 1983 I was with the Central Regional Office, BWQC, ADHS. My  
2 responsibilities were to conduct construction inspections of water and wastewater facilities to  
3 determine compliance with plans approved by the Technical Review Unit. I also performed  
4 routine operation and maintenance inspections to determine compliance with ADHS rules  
5 and regulations, and compliance with United States Environmental Protection Agency  
6 requirements.

7  
8 From August 1983 to August 1986 I was a Utilities Consultant/Water-Wastewater Engineer  
9 with the Utilities Division. My responsibilities were to provide engineering analyses of  
10 Commission regulated water and wastewater utilities for rate cases, financing cases, and  
11 consumer complaint cases. I also provided testimony at hearings for those cases.

12  
13 From August 1986 to August 1990 I was the Engineering Supervisor for the Division. My  
14 primary responsibility was to oversee the activities of the Engineering Section, which  
15 included one technician and eight Utilities Consultants. The Utilities Consultants included  
16 one Telecommunications Engineer, three Electrical Engineers, and four Water-Wastewater  
17 Engineers. I also assisted the Chief Engineer and performed some of the same tasks as I did  
18 as a Utilities Consultant.

19  
20 In August 1990 I was promoted to the position of Chief Engineer. My duties were somewhat  
21 the same as when I was the Engineering Supervisor, except that now I was less involved with  
22 the day-to-day supervision of the Engineering Staff and more involved with the  
23 administrative and policy aspects of the Engineering Section.

24

1 In April 2000 I was promoted to the position of one of two Assistant Directors of the Utilities  
2 Division. In this position I assisted the Division Director in the policy aspects of the Utilities  
3 Division. I was primarily responsible for matters dealing with water and energy.

4  
5 In August 2009 I was promoted to my present position as Director of the Utilities Division.  
6 In this position I manage the day-to-day operations of the Utilities Division with the  
7 assistance of the two Utilities Division Assistant Directors and oversee the management of  
8 the Utilities Division's Telecom & Energy Section, the Financial & Regulatory Analysis  
9 Section, the Consumer Services Section, the Engineering Section, the Compliance Section  
10 and the Administrative Section. In addition, I am responsible for making policy decisions for  
11 the Utilities Division.

12  
13 In early 2010 I was given the task of being the Interim Director for the Commission's Safety  
14 Division (Railroad and Pipeline). The day-to-day activities of the Safety Division were  
15 overseen by the managers of the Railroad Safety Section and the Pipeline Safety Section with  
16 input from me. Together with the Commission's Executive Director, I was responsible for  
17 the policy decisions for the Safety Division up until a permanent Safety Division Director  
18 was hired late in 2012.

19  
20 **Q. What is the purpose of your testimony in this case?**

21 **A.** The purpose of my testimony is to support the Proposed Settlement Agreement  
22 ("Agreement"). I will also provide testimony which addresses the settlement process,  
23 public interest benefits and general policy considerations.  
24  
25  
26

1 **Q. How is your testimony being presented?**

2 A. My testimony is organized into five sections. Section I is this introduction, Section II  
3 provides discussion of the settlement process, Section III discusses the various parts of the  
4 Agreement, Section IV identifies and discusses the reasons why the Agreement is in the  
5 public interest and Section V addresses general policy considerations.

6  
7 **Q. Will there be other Staff witnesses providing testimony in this case?**

8 A. Mr. Jian Liu will be filing testimony later in this process to provide Staff's  
9 recommendations regarding the System Improvement Benefit ("SIB") mechanism, i.e., the  
10 Distribution System Improvement Charge ("DSIC") type mechanism that is being  
11 requested by the Willow Valley Water Company ("Willow Water"). In addition, all  
12 Utilities Division Staff ("Staff") witnesses that filed Direct Testimony prior to the  
13 Agreement will be available if the Commission has questions for them.

14  
15 **Q. Why is Mr. Liu not providing his SIB testimony at this time?**

16 A. As part of the Agreement, Staff and Willow agreed that Willow would try to timely  
17 submit all the information required to have a SIB mechanism approved for Willow. Staff  
18 committed to do its best to review all the information provided so it can submit its  
19 recommendations to the Commission prior to the hearing in this case. However, if Willow  
20 does not provide Staff the necessary SIB information in a timely fashion, Staff will most  
21 likely recommend that a SIB mechanism not be approved for Willow.

22  
23 **SECTION II – SETTLEMENT PROCESS**

24 **Q. Did you participate in the negotiations that led to the execution of the Agreement?**

25 A. Yes, I did.

26

1 **Q. Please discuss the settlement process.**

2 A. The settlement process was open, transparent and inclusive. All parties received notice of  
3 the settlement meetings and, to the extent they participated, were accorded an opportunity  
4 to raise, discuss, and propose resolution to any issue that they desired.

5  
6 **Q. Over what period did the Settlement meetings take place?**

7 A. Meetings were held on July 18 and 19, 2013.  
8

9 **Q. Who participated in those meetings?**

10 A. The following parties were participants in some or all of the meetings: Willow Water;  
11 Valencia Water Company, Inc.-Town Division ("Valencia-Town"); Global Water-Palo  
12 Verde Utilities Company ("Palo Verde"); Water Utility of Northern Scottsdale, Inc.  
13 ("Northern Scottsdale"); Water Utility of Grater Tonopah, Inc. ("Tonopah"); Valencia  
14 Water Company, Inc.-Greater Buckeye Division ("Valencia-Buckeye"); Global Water-  
15 Santa Cruz Water Company ("Santa Cruz"), (the Agreement collectively refers to the  
16 foregoing companies as the "Global Applicants"); Global Water-Picacho Water Company  
17 ("Picacho Water"); Global Water-Picacho Cove Utilities Company ("Picacho Utilities");  
18 Hassayampa Utilities Company, Inc. ("Hassayampa"); Global Water Resources, Inc.  
19 ("Global Parent"), (collectively referred to as the "Global Intervenors"); the City of  
20 Maricopa ("Maricopa"); Willow Valley Club Association ("Willow Club"); New World  
21 Properties, Inc. ("New World"); Sierra Negra Ranch, LLC ("SNR"); a group of  
22 homeowner's associations ("HOAs") known as the Maricopa Area Homeowner's  
23 Association ("Maricopa HOAs"); the Residential Utility Consumer Office ("RUCO"); and  
24 Staff.

25

26

1 **Q. Could you identify some of the diverse interests that were involved in this process?**

2 A. Yes. The diverse interests included Staff, RUCO, the Global Applicants, the Global  
3 Intervenors, a municipality, developers and several HOAs.

4  
5 **Q. How many of these parties executed the Agreement?**

6 A. As of the date of the writing of this testimony, the Agreement was signed by all  
7 participants with the exception of Maricopa, Willow Club, New World, SNR, and several  
8 of the HOAs associated with Maricopa HOAs. Maricopa has indicated that it may sign  
9 the Agreement after its City Council has had an opportunity to review the Agreement and  
10 vote on it.

11  
12 **Q. Can other intervenors still sign on to the Agreement?**

13 A. Yes. Section 11.7 of the Agreement provides that "... any party to the Global Rate  
14 Dockets may join in this Settlement Agreement as a signatory by filing a signed signature  
15 page for that party with the Commission's Docket Control in the Global Rate Dockets  
16 listed above."

17  
18 **Q. Was there an opportunity for all issues to be discussed and considered?**

19 A. Yes, each party had the opportunity to raise and have its issues considered.

20  
21 **Q. Were the Signatories able to resolve all issues?**

22 A. The Signatories were able to resolve and reach agreement on all issues, except the SIB as  
23 previously mentioned.

24

25

26

1 **Q. How would you describe the negotiations?**

2 A. I believe that all participants zealously advocated and represented their interests. I would  
3 characterize the discussions as candid but professional. While acknowledging that not all  
4 parties executed the Agreement, I must re-emphasize that all parties had the opportunity to  
5 be heard and to have their positions fairly considered.

6  
7 **Q. Would you describe the process as requiring give and take?**

8 A. Yes, I would. As a result of the varied interests represented in the settlement process, a  
9 willingness to compromise was necessary. As evidenced in the Agreement, the  
10 Signatories compromised on what could be described as vastly different litigation  
11 positions.

12  
13 **Q. Because of such compromising, do you believe the public interest was compromised?**

14 A. No. As I will discuss later in this testimony, I believe that the compromises made by the  
15 Signatories further the public interest.

16  
17 **Q. Mr. Olea, you have indicated that the Agreement incorporates diverse interests**  
18 **including those of residential customers, HOAs, municipalities, developers and**  
19 **utilities. Please discuss how the Agreement addresses the diverse interests of these**  
20 **entities.**

21 A. In the Agreement, there are specific provisions which address many of the concerns  
22 expressed by the various interests. The two primary issues in this case involve the rate  
23 increase and the treatment of the Infrastructure Coordination and Financing Agreements  
24 (“ICFAs”). The Agreement calls for rates to be phased in over eight (8) years and three  
25 (3) years, depending on the system, with no rate increase in the first year; this is a benefit  
26 for all customers. The Signatories have also agreed to Staff’s level of expenses which will

1 be phased in over three (3) years for all Global Applicants. The rate for non-potable or  
2 recycled water, a concern of the HOAs, will be phased in over eight (8) years where there  
3 are existing customers.

4  
5 Global Parent will no longer enter into ICFAs and a portion of the funds of future ICFA  
6 payments will go directly to the Global utilities to pay for backbone plant; this gives some  
7 assurance to developers that the utilities will have funds available to construct plant to  
8 serve their projects. Allowing payments to be made directly to the utilities, and not Global  
9 Parent, will also avoid the unnecessary taxation of those payments, thereby allowing a  
10 greater portion of the payments to be devoted to putting utility plant in the ground. The  
11 contribution in aid of construction ("CIAC") imputation of ICFAs from the last rate case  
12 will be reversed in a way that will not unduly impact rate payers and at the same time help  
13 Global Parent improve its Balance Sheet, thereby giving more stability to all the Global  
14 utilities, which not only benefits Global Parent and its affiliated utilities but also is a  
15 benefit to customers.

16  
17 Another benefit to customers is that the Global utilities will not file another rate case  
18 earlier than May 31, 2016; if Maricopa signs on to the Agreement, Palo Verde and Santa  
19 Cruz will extend that stay-out until May 31, 2017.

20  
21 **Q. What is the return on equity ("ROE") requested by the Global Applicants compared**  
22 **to what is in the Agreement?**

23 **A.** Global Applicants requested an ROE of 11.44 percent. In its Direct Testimony, Staff  
24 recommended an ROE of 9.4 percent. The Agreement contains an ROE of 9.5 percent.

25

1 **SECTION III – SETTLEMENT AGREEMENT**

2 **Q. Please describe Part I of the Agreement.**

3 A. Part I is a general description of the settlement process and the Agreement itself, which  
4 also includes a brief description about why Staff believes the terms of the Agreement are  
5 just, reasonable, fair and in the public interest.

6  
7 **Q. Please describe Part II of the Agreement.**

8 A. Part II of the Agreement speaks to the stay-out and the revenue increase. Global  
9 Applicants agree to not file their next rate case earlier than May 31, 2016. If Maricopa  
10 signs the Agreement, Palo Verde and Santa Cruz agree not to file their next rate case  
11 before May 31, 2017. This section of the Agreement refers to Attachment A, which  
12 contains all the schedules with agreed upon rate bases, revenues, expenses, and rates. All  
13 these portions of the Agreement are designed to ensure rate stability for Global  
14 Applicant's customers while providing revenue to the Global Applicants that is fair, just  
15 and reasonable and adequate to allow them to provide safe and reliable water and  
16 wastewater services.

17  
18 **Q. Please describe Part III of the Agreement.**

19 A. This section of the Agreement addresses the rate design and bill impacts resulting from the  
20 settlement. The rate increases for Palo Verde and Santa Cruz will be phased in over eight  
21 (8) years. There is no revenue change for Northern Scottsdale, but its rate design is being  
22 modified such that it will have six (6) tiers and a Conservation Rebate similar to the other  
23 Global Applicants providing water service. Due to this change in rate design, Northern  
24 Scottsdale's lower use customers will see a lower bill than today while the higher use  
25 customers will see a higher bill. The rate increases for the remaining Global Applicants  
26 will be phased in over three (3) years. All the Global Applicants receiving a rate increase



1 rate increase in year one and new rates will not begin until year two, i.e., for all Global  
2 Applicants, except Northern Scottsdale, there will be no change in rates and/or rate design  
3 until year two (January 2015).

4  
5 **Q. Please discuss Part IV of the Agreement.**

6 A. This section contains the capital structure (57.8 percent long term debt and 42.2 percent  
7 common equity), the ROE of 9.5 percent, the cost of debt of 6.1 percent and the fair value  
8 rate of return of 7.5 percent.

9  
10 **Q. Please describe Part V of the Agreement.**

11 A. This section discusses the depreciation rates. The Signatories agree to the depreciation  
12 rates proposed by Staff with a modification to the rates for Account 348 (Other Tangible  
13 Plant) and 398 (Other Tangible Plant).

14  
15 **Q. Please describe Part VI of the Agreement.**

16 A. This section deals with the ICFA issue. I would say that this was the major issue for the  
17 Global Applicants, the Global Intervenors, and most if not all the parties to this case. In  
18 the last rate case involving Global utilities, the Commission imputed the ICFA monies  
19 received up to that point as CIAC. According to Global Parent and Global Applicants this  
20 caused a major problem with the Global Parents Balance Sheet resulting in a detrimental  
21 effect not only on Global Parent but also on the Global Applicants. Global Parent stated  
22 that the result was so serious that it could have a negative effect on the service being  
23 provided by the Global Applicants and all Global affiliated utilities. Based on the  
24 information provided, Staff believed this was a real possibility. Staff believes that the  
25 Agreement provides a mechanism for Global Parent to restore its Balance Sheet while at  
26 the same time not unduly burdening the Global Applicants' customers.

1 This section of the Agreement states that neither Global Parent nor any of its affiliates or  
2 Global utilities will enter into any ICFAs or ICFA-type contracts/agreements in the future.  
3 Even though RUCO and Staff already have such a right (and some would say obligation),  
4 Paragraph 6.1.2 specifically states that Staff and RUCO reserve the right to monitor  
5 Global Parent's and its affiliates' dealings with ICFAs.

6  
7 Part VI describes how future ICFA payments from developers to Global Parent will be  
8 handled. The Agreement contains Hook-Up Fee ("HUF") Tariffs for all the Global  
9 Applicants. The other Global utilities will file with the Commission for approval of HUF  
10 Tariffs within thirty (30) days of a Commission decision in this case. As developers pay  
11 their obligations per the ICFAs, a portion of those payments will go to the Global  
12 individual utilities as HUFs, with the remainder being retained by Global Parent to meet  
13 its obligations per each ICFA. Regardless of the amount of the ICFA payment made by  
14 any particular developer, Global Parent will be responsible to pay the total required HUF  
15 after receipt of the total payment required by the ICFA and whichever one of the  
16 following occurs first: 1) final plat for the development, 2) the start work date for that  
17 development, or 3) the date required by the HUF Tariff.

18  
19 With regard to ICFA payments that have already been received or should have been  
20 received (by requirements of an ICFA), Global Parent will retain those funds and use them  
21 to meet obligations of the ICFAs.

22  
23 **Q. Please describe Part VII of the Agreement.**

24 **A.** Part VII lists and discusses HUFs. If the Agreement is approved by the Commission, the  
25 Global Applicants will have HUFs as outlined in Part VII and the remaining Global

1 utilities will file HUF Tariff applications with the Commission within thirty (30) days of a  
2 decision in this case.

3

4 **Q. Please describe Part VIII of the Agreement.**

5 A. This section of the Agreement addresses a code of conduct ("COC") and other various  
6 tariff issues. Staff requested and Global Parent and its utilities agreed to establish a COC  
7 to make sure that the dealings/interactions between Global Parent and all its affiliates were  
8 as transparent as possible and not detrimental to utility customers. In addition, this part of  
9 the Agreement discusses the Global Applicants' low income tariff, the Central Arizona  
10 Groundwater Replenishment District adjustor, Best Management Practices water  
11 conservation tariffs, and Terms and Conditions tariffs.

12

13 **Q. Please describe Part IX of the Agreement.**

14 A. Part IX states that the Global Applicants agree to file the water loss reports recommended  
15 by Staff.

16

17 **Q. Please describe Part X of the Agreement.**

18 A. This portion of the Agreement is typical to settlement agreements presented to the  
19 Commission and states that the Commission is not bound by the Agreement and will  
20 review it independently. It also discusses the responsibilities and options of the  
21 Signatories to the Agreement if the Commission does or does not approve the Agreement.

22

23 **Q. Please describe Part XI of the Agreement.**

24 A. This part of the Agreement contains the typical miscellaneous provisions of a settlement  
25 agreement.

26

1     **SECTION IV - PUBLIC INTEREST**

2     **Q.     Mr. Olea, is the Agreement in the public interest?**

3     A.     Yes, in Staff's opinion, the Agreement is fair, balanced, and in the public interest.

4  
5     **Q.     Would you summarize the reasons that lead Staff to conclude that the Agreement is**  
6     **fair, balanced, and in the public interest?**

7     A.     This Agreement results in a settlement package that addresses the needs of the Global  
8     Applicants', Global Parent and other Global utilities while balancing those needs with  
9     terms and conditions that provide significant customer benefits, such as:

- 10             • A phase-in of any rate increase resulting from this case;
- 11             • No rate increase in year one of the phase-in for any of the utilities (this case results  
12             in a zero revenue increase for Northern Scottsdale, however, rate design will be  
13             modified which will result in a bill decrease for lower use customers and a bill  
14             increase for higher use customers);
- 15             • the rate increase for Palo Verde and Santa Cruz will be phased in over eight (8)  
16             years;
- 17             • the rate increase for Valencia-Town, Valencia-Buckeye, Willow and Tonopah will  
18             be phased in over three (3) years;
- 19             • if Tonopah files a rate case within the next eight (8) years, rates from that case(s)  
20             will be set based on either a 10 percent operating margin or rate of return,  
21             whichever results in a lower revenue requirement;
- 22             • the Global Applicants will not file a new rate case application prior to May 31,  
23             2016, and if Maricopa signs on to the Agreement, Palo Verde and Santa Cruz will  
24             not file a new rate case application prior to May 31, 2017; and
- 25             • resolution of ICFA issues.

1 **Q. Mr. Olea, do you believe that the Agreement results in just and reasonable rates for**  
2 **consumers?**

3 A. Yes. As stated above, the rates will be phased in over three years or eight years,  
4 depending on the system, and the first year will have no rate increase. This will allow  
5 customers one year to prepare for the first rate increase and will make the entire rate  
6 increase gradual over time. I do not believe that any of this could have been accomplished  
7 without a settlement agreement.

8  
9 **Q. Please discuss how the Agreement is fair to the Global Applicants.**

10 A. The revenue recommended will provide the Global Applicants with adequate funds to  
11 provide reliable and safe service, while at the same time ensuring the financial health of  
12 not only the Global Applicants, but also Global Parent.

13  
14 **Q. Mr. Olea, what was Staff's goal when it agreed to be a Signatory to the Agreement?**

15 A. The primary goal of Staff in this matter, as in all rate proceedings before the Commission,  
16 is to protect the public interest by recommending rates that are just, fair and reasonable for  
17 both the ratepayers and the Global Applicants. Staff believes it has accomplished this by  
18 reviewing the facts presented and making the appropriate recommendations to the  
19 Commission for its consideration, which will balance the interests of the Global  
20 Applicants and the ratepayers, by promoting the Commission's desire to ensure that the  
21 Global Applicants have the tools and financial health to provide safe, adequate and  
22 reliable service, while complying with Commission requirements at just and reasonable  
23 rates.

24  
25  
26

1 **SECTION V – POLICY CONSIDERATIONS**

2 **Q. Mr. Olea, what were the major policy considerations the parties had to deal with in**  
3 **this Docket?**

4 A. I believe there was one major policy consideration that Staff and other Signatories had to  
5 address in order to balance the interests of all parties, and that was the issue of ICFAs. A  
6 major concern of the Global Applicants and Staff was whether or not the imputation of the  
7 ICFA funds as CIAC from the last rate case should be modified, and if so, how.

8  
9 **Q. How does the Settlement Agreement address this ICFA issue?**

10 A. As a result of the last rate case, the Commission had Staff contract with an accounting  
11 firm to answer the basic question – could the Global utilities have paid for their rate base  
12 absent the ICFA funds. The Commission asked for this assistance to allow it to have  
13 information to possibly modify the CIAC treatment of the ICFA funds. Staff hired  
14 Ullman & Company, P.C. (certified public accountants) for this endeavor. The report  
15 resulting from the Ullman undertaking showed that but for a small portion, the Global  
16 Applicants could have paid for plant-in-service additions made between 2004 and 2008  
17 without using funds generated from the ICFAs. However, this report did not conclusively  
18 determine how the ICFA funds had been used. After giving consideration to the  
19 information provided in the Ullman report together with other financial information  
20 provided by the Global Applicants and Global Parent, Staff believed it would be in the  
21 public interest to reverse the CIAC imputation of ICFA funds, but only if it could be done  
22 in a manner that would have limited impact on the customers of the Global Applicants.  
23 Staff believed this was accomplished by having an eight (8) year phase-in of rates for Palo  
24 Verde and Santa Cruz, requiring Tonopah's rates to be set on a ten percent operating  
25 margin or rate of return (whichever results in a lower revenue requirement) over the next  
26 eight (8) years (this does not restrict the Commission from continuing this practice beyond

1 the 8 years), having all the Global utilities establish HUF Tariffs which will reduce rate  
2 base in the future, and having no rate increase resulting from this case earlier than January  
3 1, 2015.

4  
5 **Q. The Agreement calls for an eight (8) year rate phase-in for Palo Verde and Santa**  
6 **Cruz, but only requires a rate application stay-out until May 31, 2016 (May 31, 2017,**  
7 **if Maricopa signs on), which is less than three (3) years from now. How is this**  
8 **supposed to work?**

9 A. The rate phase-in applies only to the rates resulting from this case. Any rate increases  
10 resulting from future rate filings, i.e., those filed after May 31, 2016 (or possibly May 31,  
11 2017), would stand on their own and would be implemented per the Commission decision  
12 resulting from that specific future application.

13  
14 **Q. Is there anything else you would like to add regarding the Agreement?**

15 A. I would like to reiterate that the settlement discussions were transparent, candid,  
16 professional and open to all parties in this docket. All parties, even those that did not sign  
17 the Agreement, were allowed to openly express their views and opinions on all issues. I  
18 believe the Settlement Agreement is in the public interest.

19  
20 **Q. Does this conclude your testimony?**

21 A. Yes, it does.



BEFORE THE ARIZONA CORPORATION COMMISSION

BOB STUMP  
Chairman  
GARY PIERCE  
Commissioner  
BRENDA BURNS  
Commissioner  
BOB BURNS  
Commissioner  
SUSAN BITTER SMITH  
Commissioner

<p>IN THE MATTER OF THE APPLICATION OF VALENCIA WATER COMPANY – TOWN DIVISION FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.</p>	<p>DOCKET NO. W-01212A-12-0309</p>
<p>IN THE MATTER OF THE APPLICATION OF GLOBAL WATER – PALO VERDE UTILITIES COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.</p>	<p>DOCKET NO. SW-20445A-12-0310</p>
<p>IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF NORTHERN SCOTTSDALE, INC. FOR APPROVAL OF A RATE INCREASE.</p>	<p>DOCKET NO. W-03720A-12-0311</p>
<p>IN THE MATTER OF THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH, INC. FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.</p>	<p>DOCKET NO. W-02450A-12-0312</p>



IN THE MATTER OF THE APPLICATION OF VALENCIA WATER COMPANY – GREATER BUCKEYE DIVISION FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-02451A-12-0313

IN THE MATTER OF THE APPLICATION OF GLOBAL WATER – SANTA CRUZ WATER COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-20446A-12-0314

IN THE MATTER OF THE APPLICATION OF WILLOW VALLEY WATER COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES FOR UTILITY SERVICE DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS PROPERTY THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. W-01732A-12-0315

SUPPLEMENTAL

TESTIMONY

OF

JIAN W. LIU

UTILITIES ENGINEER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

SEPTEMBER 6, 2013

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1     **INTRODUCTION**

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

3     A.     My name is Jian W. Liu. My business address is 1200 West Washington Street, Phoenix,  
4            Arizona 85007.

5  
6     **Q.     Are you the same Jian W. Liu who filed Direct Testimony in this case?**

7     A.     Yes, I am.  
8

9     **PURPOSE OF TESTIMONY**

10    **Q.     What is the purpose of your Supplemental Testimony in this proceeding?**

11    A.     In my Direct Testimony filed on July 8, 2013, Staff recommended that a System  
12            Improvement Benefit ("SIB") mechanism not be approved since Global Water and  
13            Wastewater Utilities ("Global Utilities") had not provided the associated supporting  
14            documentation for Staff's review and determination if approval of a SIB mechanism  
15            would be appropriate. As part of the Settlement Agreement, Staff and Global Utilities  
16            agreed that Willow Valley Water Co., Inc. ("Willow Valley") would try to timely submit  
17            all the information required to have a SIB mechanism approved for Willow Valley. The  
18            purpose of this testimony is to update the record in this proceeding on the status of Staff's  
19            review of the proposed Willow Valley SIB mechanism.  
20

21    **Q.     Has Willow Valley filed documentation regarding the Willow Valley SIB  
22            mechanism?**

23    A.     Yes. On August 21, 2013, Mr. Ron Fleming filed testimony including information  
24            regarding the Willow Valley SIB. On September 3, 2013, Willow Valley filed the  
25            Revised SIB Engineering Report and SIB Tables ("Report") that incorporated Staff's  
26            comments.

1 **Q. Please describe the information contained in Willow Valley's Report.**

2 A. Willow Valley is seeking a SIB to address necessary distribution system infrastructure  
3 replacements and improvements to service existing customers. The Report identifies the  
4 most critical areas, estimates the quantity of service lines, hydrants and valves that need to  
5 be replaced, and estimates the associated replacement costs. In addition, the Report  
6 included a revised Table I of SIB-eligible projects and related costs. A summary of the  
7 Company's proposed 5-year infrastructure replacement plan is tabulated below.

8  
9 **TABLE I SIB ELIGIBLE PROJECTS COST SUMMARY**

Year	2014		2015		2016		2017		2018		5-Year Total	
Plant	units	cost	units	cost	units	cost	units	cost	units	cost	units	cost
Pipelines	1,626	\$93,630	1,805	\$98,669	1,447	\$79,124	1,328	\$72,668	2,478	\$135,711		\$479,802
Services	47	\$98,674	48	\$60,919	39	\$50,670	35	\$49,598	61	\$60,210		\$320,070
Hydrants	2	\$3,941	-	\$-	-	\$-	-	\$-	-	\$-	-	\$3,941
Valves	4	\$15,246	3	\$11,435	4	\$15,246	3	\$11,435	5	\$19,058		\$72,420
<b>Total</b>		<b>\$211,491</b>		<b>\$171,022</b>		<b>\$145,040</b>		<b>\$133,701</b>		<b>\$214,979</b>		<b>\$876,233</b>

10  
11 Staff has reviewed Willow Valley's Report and the proposed 5-year infrastructure  
12 replacement plan at a cost of \$876,233 and found the proposal reasonable and appropriate.  
13 However, no "used and useful" determination of the proposed plant items was made, and  
14 no conclusions should be inferred for rate making or rate base purposes in the future.

15  
16 **Q. What is Staff's recommendation regarding Willow Valley's SIB proposal?**

17 A. Staff recommends approval of Willow Valley's Table I of SIB eligible projects for  
18 purposes of SIB approval.

19

1 **Q. Do you have any additional recommendations to make?**

2 A. Yes. Staff recommends that Willow Valley file its SIB PLANT TABLE II using the form  
3 labeled Attachment A to this testimony.

4

5 **Q. Does this conclude your Supplemental Direct Testimony?**

6 A. Yes, it does.

Water System Name and PWS ID No.  
 SIB PLANT TABLE II (Page 1 of 2)  
 Information to be included with SIB-Eligible Completed Project Filings

Project No.	NARUC Acct No. (SIB-eligible plant)	Replacement Plant Description (new plant) (SIB-eligible plant)					Site (location description)	Replacement Plant			Original Plant (Plant Being Retired)						
		Description	Pipe Length/Quantity	Diameter/Size	Material	Installed Cost/Unit (actual cost)		In-Service Date (provide ADEQ AOC and other related approvals by state and/or federal agencies when applicable; pictures of installed plant)	Subtotal Actual Cost (by NARUC Acct No)	Subtotal Actual Cost (by project)	Actual Retirement Date	Original In-Service Date	Original Cost	Accumulated Depreciation Reserve (as of the actual retirement date)			
	309	Supply Mains															
	331	T&D Mains															
	333	Services															
	334	Meters															
	335	Hydrants															
										<b>Total Actual Cost</b>							

