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AZ CORP COMMISSION
DOCKET CONTROL

COMMISSIONERS

DOUG LITTLE - CHAIRMAN
BOB STUMP
BOB BURNS
TOM FORESE
ANDY TOBIN

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

DOCKET NO. W-01445A-15-0277

NOTICE OF FILING STAFF'S DIRECT TESTIMONIES

The Utilities Division ("Staff") of the Arizona Corporation Commission ("Commission") hereby files Direct Testimony of Briton A. Baxter for revenue requirement, David C. Parcell for cost of capital, and the Direct Testimony of Frank M. Smaila for engineering, in the above-referenced docket.

RESPECTFULLY SUBMITTED this 11th day of March, 2016.

Wesley Van Cleve

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Arizona Corporation Commission
DOCKETED
MAR 11 2016
DOCKETED BY

Original and thirteen (13) copies of the foregoing filed this 11th day of March, 2016, with:

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Copy of the foregoing mailed and/or emailed this 11th day of March, 2016, to:

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BEFORE THE ARIZONA CORPORATION COMMISSION

DOUG LITTLE
Chairman
BOB STUMP
Commissioner
BOB BURNS
Commissioner
TOM FORESE
Commissioner
ANDY TOBIN
Commissioner

IN THE MATTER OF THE APPLICATION OF ARIZONA WATER COMPANY, INC. AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY, AND FOR ADJUSTMENTS TO ITS RATES AND CHARGES FOR UTILITY SERVICE FURNISHED BY ITS WESTERN GROUP AND FOR CERTAIN RELATED APPROVALS	DOCKET NO. W-01445A-15-0277

DIRECT

TESTIMONY

OF

BRITON A. BAXTER

PUBLIC UTILITIES ANALYST V

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

MARCH 11, 2016

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EXECUTIVE SUMMARY
ARIZONA WATER COMPANY, INC.
WESTERN GROUP
DOCKET NO. W-01445A-15-0277

Arizona Water Company, Inc. ("AWC" or "Company") is a certificated Arizona public service corporation that provides water service throughout the State of Arizona. The Company's water systems are grouped into the Northern, Eastern, and Western Groups. The Northern group is comprised of the Navajo and Verde Valley Water Service Areas; the Eastern group is comprised of the Superstition, Cochise, and Falcon Valley Water Service Areas; and the Western group is comprised of the Pinal Valley, White Tank and Ajo Water Service Areas. The Company's last rate increase was approved in Decision No. 74081, dated September 23, 2013, for the Northern group.

On August 21, 2015, the Company filed an application[1] for a rate increase for its Western group: Pinal Valley Water Service Area (comprised of the Casa Grande, Coolidge, and Stanfield sub-systems); White Tank Water Service Area; and Ajo Water Service Area. The rates for the Western group were established in Decision No. 73144, dated May 1, 2012.

The testimony of Briton A. Baxter presents Staff's recommendations in the areas of rate base, operating income, revenue requirement, the arsenic cost recovery mechanism ("ACRM"), the nitrate cost recovery mechanism ("NCRM"), the various Central Arizona Project ("CAP") issues and the Purchased Power Adjustor Mechanism ("PPAM").

RATE APPLICATION:

Pinal Valley Water Service Area

The Company proposes rates that would increase operating revenue by $5,351,781, or 28.98 percent from $18,467,889 to $23,819,670. The proposed revenue increase would produce an operating income of $5,478,045 for an 8.93 percent rate of return on the Company proposed fair value rate base ("FVRB") of $61,344,294 which is also the proposed original cost rate base ("OCRB").

Staff recommends rates that would increase operating revenue by $3,398,668 or 18.40 percent from $18,467,889 to $21,866,557. Staff's recommended revenue increase would produce an operating income of $4,640,958 for an 8.02 percent rate of return on the Staff recommended FVRB and OCRB of $57,867,309.

White Tank Water Service Area

The Company proposes rates that would increase operating revenue by $561,725, or 24.31 percent from $2,310,991 to $2,872,716. The proposed revenue increase would produce an operating income of $456,122 for an 8.93 percent rate of return on the Company proposed FVRB of $5,107,754 which is also the proposed OCRB.

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[1] On July 31, 2015 AWC filed a "Notice of Intent to File General Rate Case and Request for Accounting Order". On August 21, 2015 AWC filed its application and 12 amendments to its application.

Staff recommends rates that would increase operating revenue by $334,737 or 14.42 percent from $2,321,542 to $2,656,279. Staff's recommended revenue increase would produce an operating income of $405,691 for an 8.02 percent rate of return on the Staff recommended FVRB and OCRB of $5,058,486.

Ajo Water Service Area

The Company proposes rates that would increase operating revenue by $94,279, or 21.53 percent from $437,888 to $532,167. The proposed revenue increase would produce an operating income of $86,240 for an 8.93 percent rate of return on the Company proposed FVRB of $965,736 which is also the proposed OCRB.

Staff recommends rates that would increase operating revenue by $55,510 or 12.61 percent from $440,253 to $495,763. Staff's recommended revenue increase would produce an operating income of $76,108 for an 8.02 percent rate of return on the Staff recommended FVRB and OCRB of $948,972.

OTHER ITEMS:

The Company seeks Commission approval (1) for various regulatory treatments of CAP costs, (2) authorization to implement a System Improvement Benefit ("SIB") surcharge, (3) continuation of the ACRM, (4) creation of a NCRM, and (5) reinitiating a PPAM.

Staff recommends:

1. That the Company be ordered to start using the most current version of the National Association of Regulatory Utility Commissioners ("NARUC") Uniform System of Accounts ("USoA"), at present the 1996 version, within 180 days of the effective date of the decision in this matter. That the Company's next rate case filing for any of its groups not be found sufficient if the Company is not using the most current version of the NARUC USoA.

2. That the Company be ordered to start maintaining accumulated depreciation reserve balances by plant property group on a going forward basis.

3. That the Company's 2015 CAP use plan be approved.

4. That the Commission authorize an accounting order that would allow the Company to defer $357,500 in 2015 CAP charges over a three year period or $119,167 per year.

5. That the Commission approve a CAP Surcharge mechanism under the following conditions:

    a. That the Company file in this Docket, a surcharge approval request once the CAP costs become known and measurable based on actual deliveries beyond what is included in base rates in this case.

b. That the Company recover any increased portion of the deferred CAP M&I capital charges found to be used and useful over a 20 year period consistent with prior treatment.

c. That any continuation of CAP surcharges be reviewed in the Company's next rate case.

6. That an off-site facilities fee be authorized using the specific tariff language contained in Exhibit A of the testimony of Mr. Frank Smaila, Staff's engineering witness.

7. Denial of the SIB mechanism.

8. That the Commission continue authorization for an ACRM that preserves eligibility for an ACRM surcharge limited to only the new arsenic treatment facilities at Wells No. 13 and 34 in the Pinal Valley Service area. Whether additional project specific ACRM surcharges are granted should be reserved and subject to further review upon each application by the Company for an ACRM surcharge.

9. That the Commission put the Company on notice that any additional arsenic treatment facilities that will be required at some unidentified point in the future, beyond the projects at Well Nos. 13 and 34, will be evaluated for possible inclusion in rate base through the normal rate case process.

10. Denial of the requested NCRM.

11. That the Commission approve a PPAM with the following conditions:

a. AWC is allowed to pass through to its customers the increase or decrease in purchased power costs that result from a rate change from any regulated electric service provider supplying retail service to AWC.

b. Within 90 days of the Decision for this rate filing, AWC must file a Plan of Administration ("POA") for the PPAM for Commission approval.

c. AWC will only recover increases or refund decreases that are due to changes in purchased power rates.

INTRODUCTION

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

A. My name is Briton A. Baxter. I am a Public Utilities Analyst V employed by the Arizona Corporation Commission ("ACC" or "Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Briefly describe your responsibilities as a Public Utilities Analyst V.

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

Q. Please describe your educational background and professional experience.

A. In 2003, I graduated from Northern Arizona University, receiving a Bachelor of Science degree in Accountancy with a public accounting certificate. Prior to joining the Commission in 2013, I spent 10 years with the Arizona Office of the Auditor General. I have experience conducting performance audits of school districts and preparing statewide reports on classroom spending, which required a large amount of data collection, validation and analysis. Since joining the Commission, I have completed six water rate cases and a prudency review for a regulated natural gas utility to build an LNG facility as well as attended various trainings on rate making topics including the National Association of Regulatory Utility Commissioners ("NARUC") Utility Rate School in May of 2014.

Q. What is the scope of your testimony in this case?

A. I am presenting Staff's analysis and recommendations in the areas of rate base and operating revenues, expenses, and rate design regarding the Arizona Water Company, Inc. ("AWC" or

"Company") application for a permanent rate increase. My rate design testimony will be filed separately at a later date. Staff witness, Mr. David Parcell, is presenting Staff's cost of capital recommendations. Staff witness, Mr. Frank Smaila, is presenting Staff's engineering analysis and recommendations.

Q. What is the basis of your recommendations?

A. I performed a regulatory audit of the Company's application to determine whether sufficient, relevant, and reliable evidence exists to support the Company's requested rate increase. The regulatory audit consisted of examining and testing the financial information, accounting records, and other supporting documentation and verifying that the accounting principles applied were in accordance with the Commission-adopted NARUC Uniform System of Accounts ("USoA") and Generally Accepted Accounting Principles.

BACKGROUND

Q. Please provide a brief description of AWC and the service it provides.

A. AWC is a certified Arizona public service company that provides water service throughout the state of Arizona. The Company's water service areas are grouped into the Northern, Eastern and Western Groups. The Northern Group is comprised of the Navajo and Verde Valley Water Service Areas; the Eastern Group is comprised of the Superstition, Cochise, and Falcon Valley Water Service Areas; and the Western Group is comprised of the Ajo, Pinal Valley, and White Tank Water Service Areas. The Company's last rate increase was approved in Decision No. 74081, dated September 23, 2013, for the Northern group.

On August 21, 2015, the Company filed an application[2] for a rate increase for its Western group: Pinal Valley Water Service Area (comprised of the Casa Grande, Coolidge, and

[2] On July 31, 2015 AWC filed a "Notice of Intent to File General Rate Case and Request for Accounting Order". On August 21, 2015 AWC filed its application and 12 amendments to its application.

Stanfield sub-service areas); White Tank Water Service Area; and Ajo Water Service Area. The rates for the Western group were established in Decision No. 73144, dated May 1, 2012.

Q. What is the primary reason for AWC's requested permanent rate increase?

A. The Company stated that the primary reason for filing this rate case was to make full use of the Western Group's Central Arizona Project ("CAP") allocations as well as to capture increases in utility plant investments, increased operating expenses and to update the cost of capital.

CONSUMER SERVICE

Q. Please provide a brief history of customer complaints received by the Commission regarding AWC.

A. Staff reviewed the Commission's records from January 1, 2013, to January 21, 2016, and found the following:

2016 – one complaint related to quality of service;

2015 – 41 complaints (16 billing, two deposits, two new service; eight quality of service; six disconnect/termination; three rates and tariffs; three company policy/procedures; and one rules and regulations question);

2014 – 22 complaints (nine billing, one new service; one service; two repair; eight disconnect/termination; and one company policy); and

2013 – 32 complaints (20 billing; two quality of service; one new service; five disconnect/termination; one construction; and three rates and tariffs)

One complaint remains open (pending investigation). All other complaints have been resolved and closed.

COMPLIANCE

Q. Please provide a summary of the compliance status of AWC.

A. A check of the Compliance database indicates that there are currently no delinquencies for AWC.

SUMMARY OF PROPOSED REVENUES

Q. Please summarize the Company's filing.

A. The Company proposed the following for each of its individual service areas in the Western Group:

Pinal Valley Water Service Area

The Company proposes rates that would increase operating revenue by $5,351,781, or 28.98 percent from $18,467,889 to $23,819,670. The proposed revenue increase would produce an operating income of $5,478,045 for an 8.93 percent rate of return on the Company proposed fair value rate base ("FVRB") of $61,344,294 which is also the proposed original cost rate base ("OCRB").

White Tank Water Service Area

The Company proposes rates that would increase operating revenue by $561,725, or 24.31 percent from $2,310,991 to $2,872,716. The proposed revenue increase would produce an operating income of $456,122 for an 8.93 percent rate of return on the Company proposed FVRB of $5,107,754 which is also the proposed OCRB.

Ajo Water Service Area

The Company proposes rates that would increase operating revenue by $94,279, or 21.53 percent from $437,888 to $532,167. The proposed revenue increase would produce an operating income of $86,240 for an 8.93 percent rate of return on the Company proposed FVRB of $965,736 which is also the proposed OCRB.

Q. Please summarize Staff's recommendations.

A. Staff recommends the following for each of the Company's service areas in the Western Group:

Pinal Valley Water Service Area

Staff recommends rates that would increase operating revenue by $3,398,668 or 18.40 percent from $18,467,889 to $21,866,557. Staff's recommended revenue increase would produce an operating income of $4,640,958 for an 8.02 percent rate of return on the Staff recommended FVRB and OCRB of $57,867,309 as shown on Schedule BAB-1.

White Tank Water Service Area

Staff recommends rates that would increase operating revenue by $334,737 or 14.42 percent from $2,321,542 to $2,656,279. Staff's recommended revenue increase would produce an operating income of $405,691 for an 8.02 percent rate of return on the Staff recommended FVRB and OCRB of $5,058,486 as shown on Schedule BAB-1.

Ajo Water Service Area

Staff recommends rates that would increase operating revenue by $55,510 or 12.61 percent from $440,253 to $495,763. Staff's recommended revenue increase would produce an operating income of $76,108 for an 8.02 percent rate of return on the Staff recommended FVRB and OCRB of $948,972 as shown on Schedule BAB-1.

Q. What test year did the Company utilize in this filing?

A. AWC's test year is the twelve months ended December 31, 2014.

Q. Please summarize Staff's rate base and operating income adjustments for AWC.

A. Staff's testimony discusses the following adjustments:

Pinal Valley Rate Base Adjustments

Post-Test Year Plant – This adjustment decreases rate base by a net $3,208,287 to reflect the post-test year plant additions found to be not used and useful and the updated costs of the completed projects.

Allowance for cash working capital – This adjustment decreases rate base by a net $268,698 to reflect the updated working cash requirement component of the allowance for cash working capital using Staff's recommended adjustments to operating revenues and expenses.

White Tank Rate Base Adjustments

Post-Test Year Plant – This adjustment decreases rate base by a net $72,481 to reflect the post-test year plant additions found to be not used and useful and the updated costs of the completed projects.

Allowance for cash working capital – This adjustment increases rate base by a net $23,213 to reflect the updated working cash requirement component of the allowance for cash working capital using Staff's recommended adjustments to operating revenues and expenses.

Ajo Rate Base Adjustments

Post-Test Year Plant – This adjustment decreases rate base by a net $12,585 to reflect the post-test year plant additions found to be not used and useful and the updated costs of the completed projects.

Allowance for cash working capital – This adjustment decreases rate base by a net $4,179 to reflect the updated working cash requirement component of the allowance for cash working capital using Staff's recommended adjustments to operating revenues and expenses.

Pinal Valley Operating Income Adjustments

Salaries and Wages – This adjustment decreases the level of salaries and wages proposed by the Company by a net of $231,579 to reflect Staff's recommended salaries and wage expense and to adjust for vacant post-test year positions that were included in the Company's pro forma salaries and wage expense but were not filled.

Vehicles – This adjustment decreases expenses associated with vehicle operating costs by a net of $18,154 because these vehicle costs related to the vacant post-test year positions just noted.

Life Insurance – This adjustment decreases administrative and general expenses to reflect an adjustment to reduce life insurance expenses by $16,013.

Rate Case Expense – This adjustment decreases administrative and general expenses to reflect an adjustment to reduce rate case expenses by $44,156.

Depreciation & Amortization Expense – This adjustment decreases depreciation & amortization expense by $305,199 to reflect Staff's recommended adjustments to plant in service.

Income Tax Expense – This adjustment increases federal income tax expenses by $232,155 and increases state income tax expenses by $39,881 to reflect Staff's recommended adjustments to taxable income.

Property Tax Expense – This adjustment increases property tax expense by $129 to reflect Staff's recommended adjustments to operating revenues.

White Tank Operating Income Adjustments

Weatherization and Declining Usage – This adjustment increases revenues by $10,551 and increases total operating expenses by $5,581 to reflect Staff's denial of the weatherization adjustment and revised declining usage adjustment.

Salaries and Wages – This adjustment decreases the level of salaries and wages proposed by the Company by a net of $89,282 to reflect Staff's recommended salaries and wage expense and to adjust for vacant post-test year positions that were included in the Company's pro forma salaries and wage expense but were not filled.

Vehicles – This adjustment decreases expenses associated with vehicle operating costs by a net of $5,899 because these vehicle costs related to the vacant post-test year positions just noted.

Life Insurance – This adjustment decreases administrative and general expenses to reflect an adjustment to reduce life insurance expenses by $1,237.

Rate Case Expense – This adjustment decreases administrative and general expenses to reflect an adjustment to reduce rate case expenses by $5,272.

Depreciation & Amortization Expense – This adjustment decreases depreciation & amortization expense by $34,678 to reflect Staff's recommended adjustments to plant in service.

Income Tax Expense – This adjustment increases federal income tax expenses by $35,392 and increases state income tax expenses by $7,832 to reflect Staff's recommended adjustments to taxable income.

Property Tax Expense – This adjustment increases property tax expense by $518 to reflect Staff's recommended adjustments to operating revenues.

Ajo Operating Income Adjustments

Weatherization and Declining Usage – This adjustment increases revenues by $2,365 and increases total operating expenses by $1,950 to reflect Staff's denial of the weatherization adjustment and revised declining usage adjustment.

Salaries and Wages – This adjustment decreases the level of salaries and wages proposed by the Company by a net of $2,179 to reflect Staff's recommended salaries and wage expense and to adjust for vacant post-test year positions that were included in the Company's pro forma salaries and wage expense but were not filled.

Life Insurance – This adjustment decreases administrative and general expenses to reflect an adjustment to reduce life insurance expenses by $447.

Rate Case Expense – This adjustment decreases administrative and general expenses to reflect an adjustment to reduce rate case expenses by $958.

Depreciation & Amortization Expense – This adjustment decreases depreciation & amortization expense by $1,947 to reflect Staff's recommended adjustments to plant in service.

Income Tax Expense – This adjustment increases federal income tax expenses by $1,451 and increases state income tax expenses by $351 to reflect Staff's recommended adjustments to taxable income.

Property Tax Expense – This adjustment increases property tax expense by $106 to reflect Staff's recommended adjustments to operating revenues.

RATE BASE

Fair Value Rate Base

Q. Did the Company prepare schedules showing the elements of Reconstruction Cost New Rate Base?

A. No, the Company did not. The Company's filing treats the OCRB the same as the FVRB.

PINAL VALLEY RATE BASE

Rate Base Summary

Q. Please summarize Staff's adjustments to Pinal Valley's rate base shown on Schedules BAB-3 and BAB-4.

A. Staff's adjustments to Pinal Valley's rate base resulted in a net decrease of $3,476,985, from $61,344,294 to $57,867,309 due to various adjustments as discussed in Staff's testimony.

Rate Base Adjustment No. 1 – Post-Test Year Plant

Q. How much Post-Test Year Plant is the Company proposing to include in rate base?

A. For Pinal Valley, the Company is proposing inclusion of $9,122,637 in post-test year plant additions.

Q. What issues did Staff identify with the Company's post-test year plant additions?

A. Staff identified two issues with the Company's post-test year plant additions. First, as shown on Schedules B-2 Appendix pages 1 through 4, AWC captured the majority of the post-test year plant projects using cost estimates. Second Staff identified several projects that were not used and useful because they were not in service by December 31, 2015, the cut-off Staff is

applying to post-test year plant additions. This cutoff date coincides with the site visits as detailed in the Engineering Report.

Q. What did Staff do to address the cost estimate issue?

A. In Staff Data Requests ("DR") BAB 4.1, BAB 5.1 and BAB 8.1[3], Staff requested the actual costs of the post-test year plant projects and the in-service dates. Using the Company's responses, Staff made adjustments to reflect the actual costs booked to date for each listed project.

Q. What are the resulting adjustments for Pinal Valley due to estimated costs?

A. As shown on Schedule BAB-5, Staff is recommending a total decrease to rate base for Pinal Valley of $608,176 for the correction of estimated costs.

Q. Are there any other projects that might still require an adjustment?

A. Yes. The adjustments Staff is recommending for cost estimates are as of November 30, 2015. The following projects were determined by Staff to be in service but according to the Company, costs were not yet finalized due to outstanding invoices: 5164, 5165, 5260, 5296, 5299, 5304, 5326, 5332, 5345, 5348, 5359, and 5362. As the costs for these projects are updated additional adjustments may be necessary.

Q. What projects were found to be Not Used and Useful?

A. Staff compared the full list of post-test year projects listed on Schedule B-2 Appendix, to information provided in response to Staff DR BAB 1.13, and the list of completed projects as verified and noted in the Staff Engineering Report, projects 4806, 5166, 5324, 5325, and 5327

[3] See Attachment A

were found to be not used and useful. In addition, the projects described as "Blanket" projects were found to be not used and useful.

Q. What adjustments were made to rate base to reflect the post-test year plant that Staff is recommending be found Not Used and Useful?

A. As shown on Schedule BAB-5 Staff is recommending adjustments based on a not used and useful determination. Staff recommends a decrease to rate base of $2,600,111 for Pinal Valley.

Q. Please discuss projects 4806 and 5166.

A. Projects 4806 and 5166 are for arsenic treatment facilities/devices. As of the December 2015, on site visits conducted by the Staff engineer, these projects were not completed. Therefore, Staff has found them to be not used and useful.

Q. Please discuss projects 5324, 5325 and 5327.

A. These are post-test year projects planned for the Company's Phoenix office. Project 5324 is for upgrades to the Company's phone system. Project 5325 is to upgrade the building signs, and project 5327 is to update the Company's website. None of these projects had been completed as of Staff's December 31, 2015, cutoff date for post-test year plant.

Q. How did AWC allocate the Phoenix office post-test year plant additions to Pinal Valley?

A. The Company used a 3-factor allocation approach that is based on the ratios of each service area's number of customers, gross plant less intangibles, and payroll to the companywide total for each of these measures, to add the post-test year Phoenix office plant additions to the Western Group. The allocation rate for Pinal Valley was 0.3317 percent.

Q. Please further discuss the "Blanket" projects.

A. In Staff DR BAB 8.1, Staff requested additional information related to the projects listed as "Blanket" projects on the Company's Schedule B-2 Appendix page 1 Column A, page 3 Column B for Pinal Valley. Based on the amounts, and the plant accounts used to record these post-test year plant additions, Staff was unable to verify that these additions are used and useful during the site visits. Staff intends to address these blanket projects further in surrebuttal testimony, at which time Staff will be able to either confirm that these projects are or are not used and useful and will make any necessary adjustments.

Q. What is Staff's recommendation?

A. Staff recommends a total decrease to rate base for the Pinal Valley Service Area of $3,208,287 for post-test year adjustments as shown on Schedules BAB-4 and BAB-5.

Rate Base Adjustment No. 2 – Allowance for Working Capital

Q. What components are included in the Company's proposed allowance for working capital?

A. The Company's proposed allowance for working capital consists of four components. They are working cash requirement, materials and supply inventory, required bank balances, and payments & special deposits.

Q. Please describe Staff's working capital adjustment to rate base.

A. Staff made no adjustments to the materials and supply inventory, required bank balances, and payments & special deposits components. The Staff adjustments relate to the working cash requirement component of the allowance for working capital only. The calculation of a working cash requirement quantifies the amount of cash that a Company needs to operate. Staff's recommended adjustments are based on Staff recommended revenue and expense

levels in the schedules. As expenses were increased or decreased in the revenue requirement these were also increased or decreased in the working cash requirement.

Q. What basis did the Company use for its proposed allowance for cash working capital?

A. The Company's proposed allowance for working capital is based on a lead-lag study.

Q. What is the net result of the lead-lag factors?

A. The timing of the collection of revenues was compared to the timing of each expense line item the Company proposed. If the expense took longer to pay than to collect the revenue, the Company receives the benefit of cash working capital and the opposite is true if the expense is to be paid prior to the revenues being received. A net lead-lag factor for each expense item was multiplied by the proposed expense to calculate the positive or negative working capital required.

Q. Did the Company's lead-lag study include all of the necessary components?

A. No. The Company's lead-lag study does not include interest expense.

Q. Has the Company proposed to exclude interest expense in any of its prior rate cases?

A. Yes. Interest expense was excluded from the Company's proposed lead-lag study in the 2012 Eastern Group rate case, but was included in the settlement agreement adopted by the Commission.[4] Also in a prior Northern Group rate case in Decision No. 64282,[5] the Company's proposal to exclude interest expense from its lead-lag study was denied. The Commission stated:

> "The Company collects cash used to make interest payments prior to the interest due date and, during the time Arizona Water has possession of these

[4] Decision No. 74081.
[5] Dated December 20, 2000.

> funds, they are a source of cost-free cash that can be used by the Company until making payments to creditors. Therefore, in accordance with the NARUC methodology, Staff claims that its lead-lag study properly included interest expense."

The Commission agreed that interest expense, which is a cash item available to the Company for payment to creditors prior to the interest due date should be included in a lead-lag study.

Q. Is Staff recommending including interest expense as a component of the lead-lag calculation in this case?

A. Yes, Staff's adjustment includes synchronized interest expense, using the interest rate recommended by Staff's Cost of Capital witness Mr. David Parcell.

Q. What is Staff's recommendation?

A. Staff recommends a reduction of the allowance for working capital for Pinal Valley of $268,698 as shown on Schedule BAB-6.

WHITE TANK RATE BASE

Rate Base Summary

Q. Please summarize Staff's adjustments to White Tank's rate base shown on Schedules BAB-3 and BAB-4.

A. Staff's adjustments to White Tank's rate base resulted in a net decrease of $49,268, from $5,107,754 to $5,058,486 due to various adjustments as discussed in Staff's testimony.

Rate Base Adjustment No. 1 – Post-Test Year Plant

Q. How much Post-Test Year Plant is the Company proposing to include in rate base?

A. For White Tank, the Company is proposing inclusion of $541,050 in post-test year plant additions.

Q. What issues did Staff identify with the Company's post-test year plant additions?

A. Staff identified two issues with the Company's post-test year plant additions. First, as shown on Schedules B-2 Appendix page 5, AWC captured the post-test year plant projects using cost estimates. Second Staff identified several projects that were not used and useful because they were not in service by December 31, 2015, the cut-off Staff is applying to post-test year plant additions. This cutoff date coincides with the site visits as detailed in the Engineering Report.

Q. What did Staff do to address the cost estimate issue?

A. In DRs BAB 4.1, BAB 5.1 and BAB 8.1, Staff requested the actual costs of the post-test year plant projects and the in-service dates. Using the Company's responses, Staff made adjustments to reflect the actual costs booked to date for each listed project.

Q. What are the resulting adjustments for the White Tank Service Areas due to estimated costs?

A. As shown on Schedule BAB-5, Staff is recommending a total increase of $20,955 for White Tank for the correction of estimated costs.

Q. Are there any other projects that might still require an adjustment?

A. Yes. The adjustments Staff is recommending for cost estimates are as of November 30, 2015. Project 5326 was determined by Staff to be in service but according to the Company, costs were not yet finalized due to outstanding invoices. As the cost for this project is updated an additional adjustment may be necessary.

Q. What projects were found to be Not Used and Useful?

A. Staff compared the full list of post-test year projects listed on Schedule B-2 Appendix, to information provided in response to Staff DR BAB 1.13, and the list of completed projects as verified and noted in the Staff Engineering Report, projects 5324, 5325, and 5327 were found to be not used and useful. In addition, the projects described as "Blanket" projects were found to be not used and useful.

Q. What adjustments were made to rate base to reflect the post-test year plant that Staff is recommending be found Not Used and Useful?

A. As shown on Schedule BAB-5 Staff is recommending adjustments based on a not used and useful determination. Staff recommends a decrease to rate base of $93,436 for White Tank.

Q. Please discuss projects 5324, 5325 and 5327.

A. These are post-test year projects planned for the Company's Phoenix office. Project 5324 is for upgrades to the Company's phone system. Project 5325 is to upgrade the building signs, and project 5327 is to update the Company's website. None of these projects had been completed as of Staff's December 31, 2015, cutoff date for post-test year plant.

Q. How did AWC allocate the Phoenix office post-test year plant additions to the White Tank service area?

A. The Company used a 3-factor allocation approach that is based on the ratios of each service area's number of customers, gross plant less intangibles, and payroll to the companywide total for each of these measures, to add the post-test year Phoenix office plant additions to the Western Group. The allocation rate for White Tank was 0.0396 percent.

Q. Please further discuss the "Blanket" projects.

A. In Staff DR BAB 8.1, Staff requested additional information related to the projects listed as "Blanket" projects on the Company's Schedule B-2 Appendix page 5 Column A for White Tank. Based on the amounts, and the plant accounts used to record these post-test year plant additions, Staff was unable to verify that these additions are used and useful during the site visits. Staff intends to address these blanket projects further in surrebuttal testimony, at which time Staff will be able to either confirm that these projects are or are not used and useful and will make any necessary adjustments.

Q. What is Staff's recommendation?

A. Staff recommends a total decrease of $72,481 for the White Tank Service Area for post-test year adjustments as shown on Schedules BAB-4 and BAB-5.

Rate Base Adjustment No. 2 – Allowance for Working Capital

Q. What components are included in the Company's proposed allowance for working capital?

A. The Company's proposed allowance for working capital consists of four components. They are working cash requirement, materials and supply inventory, required bank balances, and payments & special deposits.

Q. Please describe Staff's working capital adjustment to rate base.

A. Staff made no adjustments to the materials and supply inventory, required bank balances, and payments & special deposits components. The Staff adjustments relate to the working cash requirement component of the allowance for working capital only. The calculation of a working cash requirement quantifies the amount of cash that a Company needs to operate. Staff's recommended adjustments are based on Staff recommended revenue and expense

levels in the schedules. As expenses were increased or decreased in the revenue requirement these were also increased or decreased in the working cash requirement.

Q. What basis did the Company use for its proposed allowance for cash working capital?

A. The Company's proposed allowance for working capital is based on a lead-lag study.

Q. What is the net result of the lead-lag factors?

A. The timing of the collection of revenues was compared to the timing of each expense line item the Company proposed. If the expense took longer to pay than to collect the revenue, the Company receives the benefit of cash working capital and the opposite is true if the expense is to be paid prior to the revenues being received. A net lead-lag factor for each expense item was multiplied by the proposed expense to calculate the positive or negative working capital required.

Q. Did the Company's lead-lag study include all of the necessary components?

A. No. The Company's lead-lag study ignores interest expense.

Q. Has the Company proposed to exclude interest expense in any of its prior rate cases?

A. Yes. Interest expense was excluded from the Company's proposed lead-lag study in the 2012 Eastern Group rate case, but was included in the settlement agreement adopted by the Commission.[6] Also in a prior Northern Group rate case in Decision No. 64282,[7] the Company's proposal to exclude interest expense from its lead-lag study was denied. The Commission stated:

> "The Company collects cash used to make interest payments prior to the interest due date and, during the time Arizona Water has possession of these

[6] Decision No. 74081.
[7] Dated December 20, 2000.

> funds, they are a source of cost-free cash that can be used by the Company until making payments to creditors. Therefore, in accordance with the NARUC methodology, Staff claims that its lead-lag study properly included interest expense."

The Commission agreed that interest expense, which is a cash item available to the Company for payment to creditors prior to the interest due date should be included in a lead-lag study.

Q. Is Staff recommending including interest expense as a component of the lead-lag calculation in this case?

A. Yes, Staff's adjustment includes synchronized interest expense, using the interest rate recommended by Staff's Cost of Capital witness Mr. David Parcell.

Q. What is Staff's recommendation?

A. Staff recommends an increase for White Tank of $23,213 as shown on Schedule BAB-6.

AJO RATE BASE

Rate Base Summary

Q. Please summarize Staff's adjustments to Ajo's rate base shown on Schedules BAB-3 and BAB-4.

A. Staff's adjustments to Ajo's rate base resulted in a net decrease of $16,764, from $965,736 to $948,972 due to various adjustments as discussed in Staff's testimony.

Rate Base Adjustment No. 1 – Post-Test Year Plant

Q. How much Post-Test Year Plant is the Company proposing to include in rate base?

A. For Ajo, the Company is proposing inclusion of $11,650 in post-test year plant additions.

Q. What issues did Staff identify with the Company's post-test year plant additions?

A. Staff identified two issues with the Company's post-test year plant additions. First, as shown on Schedules B-2 Appendix page 6, AWC captured the post-test year plant projects using cost estimates. Second Staff identified several projects that were not used and useful because they were not in service by December 31, 2015, the cut-off Staff is applying to post-test year plant additions. This cutoff date coincides with the site visits as detailed in the Engineering Report.

Q. What did Staff do to address the cost estimate issue?

A. In DRs BAB 4.1, BAB 5.1 and BAB 8.1, Staff requested the actual costs of the post-test year plant projects and the in-service dates. Using the Company's responses, Staff made adjustments to reflect the actual costs booked to date for each listed project.

Q. What are the resulting adjustments for the Ajo Service Area due to estimated costs?

A. As shown on Schedule BAB-5, Staff is recommending a total increase for Ajo of $44 for the correction of estimated costs.

Q. Are there any other projects that might still require an adjustment?

A. Yes. The adjustments Staff is recommending for cost estimates are as of November 30, 2015. Project 5326 was determined by Staff to be in service but according to the Company, costs were not yet finalized due to outstanding invoices. As the cost for this project is updated an additional adjustment may be necessary.

Q. What projects were found to be Not Used and Useful?

A. Staff compared the full list of post-test year projects listed on Schedule B-2 Appendix, to information provided in response to Staff DR BAB 1.13, and the list of completed projects as

verified and noted in the Staff Engineering Report, projects 5324, 5325, and 5327 were found to be not used and useful. In addition, the projects described as "Blanket" projects were found to be not used and useful.

Q. What adjustments were made to rate base to reflect the post-test year plant that Staff is recommending be found Not Used and Useful?

A. As shown Schedule BAB-5 Staff is recommending adjustments based on a not used and useful determination. Staff recommends a decrease of $12,629 for Ajo.

Q. Please discuss projects 5324, 5325 and 5327.

A. These are post-test year projects planned for the Company's Phoenix office. Project 5324 is for upgrades to the Company's phone system. Project 5325 is to upgrade the building signs, and project 5327 is to update the Company's website. None of these projects had been completed as of Staff's December 31, 2015, cutoff date for post-test year plant.

Q. How did AWC allocate the Phoenix office post-test year plant additions to the Western Group service areas?

A. The Company used a 3-factor allocation approach that is based on the ratios of each service area's number of customers, gross plant less intangibles, and payroll to the companywide total for each of these measures, to add the post-test year Phoenix office plant additions to the Western Group. The allocation rate for Ajo was 0.0072 percent.

Q. Please further discuss the "Blanket" projects.

A. In Staff DR BAB 8.1, Staff requested additional information related to the projects listed as "Blanket" projects on the Company's Schedule B-2 Appendix page 6 Column A for Ajo. Based on the amounts, and the plant accounts used to record these post-test year plant

additions, Staff was unable to verify that these additions are used and useful during the site visits. Staff intends to address these blanket projects further in surrebuttal testimony, at which time Staff will be able to either confirm that these projects are or are not used and useful and will make any necessary adjustments.

Q. What is Staff's recommendation?

A. Staff recommends a total decrease of $12,585 for the Ajo Service Area for post-test year adjustments as shown on Schedules BAB-4 and BAB-5.

Rate Base Adjustment No. 2 – Allowance for Working Capital

Q. What components are included in the Company's proposed allowance for working capital?

A. The Company's proposed allowance for working capital consists of four components. They are working cash requirement, materials and supply inventory, required bank balances, and payments & special deposits.

Q. Please describe Staff's working capital adjustment to rate base.

A. Staff made no adjustments to the materials and supply inventory, required bank balances, and payments & special deposits components. The Staff adjustments relate to the working cash requirement component of the allowance for working capital only. The calculation of a working cash requirement quantifies the amount of cash that a Company needs to operate. Staff's recommended adjustments are based on Staff recommended revenue and expense levels in the schedules. As expenses were increased or decreased in the revenue requirement these were also increased or decreased in the working cash requirement.

Q. What basis did the Company use for its proposed allowance for cash working capital?

A. The Company's proposed allowance for working capital is based on a lead-lag study.

Q. What is the net result of the lead-lag factors?

A. The timing of the collection of revenues was compared to the timing of each expense line item the Company proposed. If the expense took longer to pay than to collect the revenue, the Company receives the benefit of cash working capital and the opposite is true if the expense is to be paid prior to the revenues being received. A net lead-lag factor for each expense item was multiplied by the proposed expense to calculate the positive or negative working capital required.

Q. Did the Company's lead-lag study include all of the necessary components?

A. No. The Company's lead-lag study does not include interest expense.

Q. Has the Company proposed to exclude interest expense in any of its prior rate cases?

A. Yes. Interest expense was excluded from the Company's proposed lead-lag study in the 2012 Eastern Group rate case, but was included in the settlement agreement adopted by the Commission.[8] Also in a prior Northern Group rate case in Decision No. 64282,[9] the Company's proposal to exclude interest expense from its lead-lag study was denied. The Commission stated:

> "The Company collects cash used to make interest payments prior to the interest due date and, during the time Arizona Water has possession of these funds, they are a source of cost-free cash that can be used by the Company until making payments to creditors. Therefore, in accordance with the NARUC methodology, Staff claims that its lead-lag study properly included interest expense."

[8] Decision No. 74081.
[9] Dated December 20, 2000.

The Commission agreed that interest expense, which is a cash item available to the Company for payment to creditors prior to the interest due date should be included in a lead-lag study.

Q. Is Staff recommending including interest expense as a component of the lead-lag calculation in this case?

A. Yes, Staff's adjustment includes synchronized interest expense, using the interest rate recommended by Staff's Cost of Capital witness Mr. David Parcell.

Q. What is Staff's recommendation?

A. Staff recommends a reduction of the allowance for working capital for Ajo of $4,179, as shown on Schedule BAB-6.

PINAL VALLEY OPERATING INCOME

Operating Income Summary

Q. What are the results of Staff's analysis of test year revenues, expenses and operating income?

A. As shown on Schedules BAB-10 and BAB-11 Staff's analysis resulted in test year revenues of $18,467,889, adjusted test year expenses of $15,909,593 and an operating income of $2,558,296 for Pinal Valley.

Operating Income Adjustment No. 1 – No adjustment for Weather Normalization and Declining Usage

Q. What pro forma adjustment is the Company proposing regarding test year revenues and expenses?

A. The Company's witness, asserts that weather conditions in the test year were slightly wetter and cooler than normal, resulting in lower residential usage than usual for the Pinal Valley

Service Area. Therefore the Company proposes that a pro-forma adjustment is necessary to reflect more normal revenues and expenses related to weather patterns.

Q. Has AWC proposed a weather normalization adjustment to revenues in prior filings?

A. Yes. In the most recent rate case for the Northern Group[10] the Company proposed a weather normalization adjustment to revenues.

Q. Was the Company's weather normalization adjustment request approved in that case?

A. No. Per Decision No. 74081[11] in the Commission approved settlement agreement the Company's weather normalization adjustment was reversed and in its place the parties agreed to a 5 percent downward adjustment to the billing determinants to reflect declines in customer usage that continued post-test year.

Q. Do water companies usually request weather normalization adjustments?

A. No. Staff is not aware of any recent rate case in which a weather normalization adjustment to revenues was proposed for a water company outside of the Company's most recent Northern Group rate case, as discussed.

Q. Please describe the methodology employed by the Company for its proposed Weather Normalization and Declining Usage adjustment?

A. The Company performed a regression analysis, where a base 10 logarithm of sales per customer was used as the dependent variable and the Palmer Drought Severity Index ("PDSI"), and coded monthly indicators to represent the twelve months of the year were used as independent variables. The Company attempted to use the regression models to quantify the estimated effects of weather and rate increases over time on use per customer.

[10] Docket Number W-01445A-12-0348
[11] Dated September 23, 2013

The estimated effects were then used by the Company to calculate its proposed weather normalization and declining usage adjustment.

Q. What is Staff's major concern with the use of statistics to justify revenue and expense pro-forma adjustments?

A. That the results can vary significantly simply by such steps as re-running statistical models using different time periods, or identifying and using different variables to achieve the desired outcome. Staff does not believe that weather normalization analysis results are truly linear so results will change if the analysis timeframe is changed.

Q. Does Staff believe that a weatherization and usage adjustment is necessary in this filing?

A. Staff believes that given the unpredictable nature of the weather, making an additional normalization adjustment to test year revenues to reflect a continuation post-test year of anticipated weather patterns based on five years of historical data is not reasonable. However, Staff recommends adoption of a declining usage adjustment on the basis that average usage continued to decline post-test year. As a post-test year event, this adjustment is based on a known and measurable change to test year activity.

Q. What are the results of Staff's analysis of declining usage for the Pinal Valley Service Area?

A. The Company's proposed weather normalization and declining usage adjustment for Pinal Valley residential customers is -2.05 percent, as reflected in the adjustment shown on Schedule C-2 Appendix page 9. Staff has calculated a declining usage rate of -2.11 percent which includes nine months (January through September of 2015) of post-test year consumption for the residential customer class, using data provided to Staff in response to

DR BAB 2.12c[12]. The slight difference in calculations would result in an immaterial adjustment for Pinal Valley, therefore Staff recommends accepting the Company's proposed adjustment for this service area.

Operating Income Adjustment No. 2 – Salaries and Wages

Q. What adjustment to salaries and wages is the Company proposing?

A. The Company is proposing to capture an increase to salary and wage expense to account for a three percent pay increase across all positions from 2015 to 2016, and the Company included costs for six vacant positions that were expected to be filled post-test year, as shown on Schedules C-1, page 2; C-2 page 4; and C-2 Appendix page 12.

Q. Does Staff agree with the three percent increase to pay?

A. No. In Staff DR BAB 4.5c[13], the Company provided the actual percentage increases since 2010 (the test year in the last rate case). Based on the information provided, Staff has calculated and applied an average increase of 1.6 percent.

Q. What about the vacant test year positions?

A. In addition, per the Company's response to Staff's DR BAB 4.5b, only two of the six vacant positions were actually filled by the Company as of December 31, 2015. The Company stated that they hired five employees to fill newly created positions that did not serve test year customers. Therefore, Staff recommends only including the two employees that were hired to serve test year customers.

[12] See Attachment B
[13] See Attachment C

Q. Did Staff make any other adjustments to salaries and wages?

A. Yes. One of the five new hires to fill a position created post-test year identified in the Company's response to Staff's DR BAB 4.5b, was included in the salaries and wages pro forma adjustment. Therefore, Staff made an adjustment to remove the salary for this position because the position did not provide service to test year customers.

Q. What is Staff's recommendation?

A. Staff recommends decreasing salaries and wages for Pinal Valley by $231,579 as shown on Schedules BAB-11 and BAB-13.

Operating Income Adjustment No. 3 – Vehicles

Q. What adjustment for vehicle expenses is the Company proposing?

A. The Company is proposing to increase expenses for the increased cost to operate its vehicles along with the costs of six additional vehicles associated with the vacant test year positions that were expected to be filled post-test year, by a total of $83,507 for Pinal Valley as shown on Schedules C-1, page 2; C-2 page 5; and C-2 Appendix page 23.

Q. Does Staff agree with the Company's proposed increases for vehicles for Pinal Valley?

A. No. Similar to the salaries and wages adjustment recommended by Staff, based on the information provided by the Company in Staff DR BAB 4.5c, Staff believes that a similar adjustment for the vehicles that would be associated with the four positions that were not filled is necessary to be consistent.

Q. What is Staff's recommendation?

A. Staff recommends decreasing expenses associated with vehicles for Pinal Valley by $18,154 as shown on Schedules BAB-11 and BAB-14a.

Operating Income Adjustment No. 4 – Life Insurance

Q. Did AWC propose an adjustment to life insurance expense?

A. Yes. As part of proposed adjustment IS-9, as shown on Schedule C-2 Appendix, page 16 of 38, the Company proposes an adjustment to insurance expense which includes the cost of life insurance.

Q. Does Staff accept the Company's life insurance adjustment?

A. No. Staff reviewed the Company's proposed insurance adjustment and found an error in the pro forma calculation in the class 1 volumes which resulted in a doubling of the life insurance expense when it should not have been adjusted at all. In DR BAB 4.10, Staff requested the 2015 life insurance invoices which verified the error and supported that an adjustment should not have been made.

Q. What is Staff's recommendation?

A. Staff recommends declining the life insurance portion of the insurance adjustment, which results in a decrease of administrative & general expenses for Pinal Valley of $16,013 as shown on Schedules BAB-11 and BAB-14b.

Operating Income Adjustment No. 5 – Rate Case Expense

Q. How much does the Company propose to recover in rate case expenses?

A. The Company proposes to collect $486,274 in rate cases expenses for the Western Group in this filing, allocated between the three service areas and normalized over three years, as shown on each service area's Schedule BAB-14c.

Q. How did the Company develop its proposed level of total rate case expense?

A. AWC used cost estimates provided by their legal counsel and their cost of capital witness. These estimates were then combined with various other rate case expenses, such as costs associated with public notice, assistance with preparing their 2015 CAP usage plan, printing, etc., using the most recent Eastern Group rate case[14] expenses adjusted for inflation.

Q. Does Staff agree with the methodology that the Company used to estimate its proposed rate case expense?

A. Staff agrees with the allocation percentages and the three year normalization period, but disagrees with the total amount of rate case expense.

Q. How did Staff develop its recommended rate case expenses?

A. In response to RUCO's DR 1.20, AWC provided the actual rate case expenses for this proceeding as of September 24, 2015, and in response to Staff's DR BAB 4.9a, the Company provided the actual rate case expenses for the most recently adjudicated rate case, which was for its Northern Group[15]. Staff then determined a reasonable amount of rate case expenses using this combined information.

Q. Please identify how Staff's recommended rate case expense differs from the Company?

A. As shown on Schedule BAB-14c, lines 22-31, Staff is recommending a net reduction in rate case expenses of $151,157 which is primarily due to Staff's recommendation of $175,000 less in legal expenses, along with various other adjustments as reflected on the schedules from what the Company has proposed.

[14] Arizona Water docket W-01445A-11-0310, using a 2010 test year.
[15] Arizona Water docket W-01445A-12-0348, using a 2011 test year.

Q. What is Staff's recommendation?

A. Staff recommends a total rate case expense of $335,117, which is $151,157 less than the Company's proposed rate case expense of $486,274, to be normalized over a three year period and allocated using the Company's proposed allocation rates. Staff's recommended rate case expense results in an adjustment from $142,049 to $97,894 or a decrease of $44,156 for Pinal Valley as shown on Schedules BAB-11 and BAB-14c.

Operating Income Adjustment No. 6 – Depreciation Expense

Q. What is AWC proposing for depreciation expense for the Pinal Valley Service Area?

A. The Company is proposing depreciation expenses of $3,963,576 for Pinal Valley as shown on Schedule C-2 Appendix page 27.

Q. What adjustment did Staff make to depreciation expense?

A. Staff adjusted depreciation expense to reflect Staff's calculation of depreciation expense using Staff's recommended depreciation rates, plant balances, and CIAC balances.

Q. What is Staff's recommendation?

A. Staff recommends decreasing depreciation expense by $305,199, from $3,963,576 to $3,658,377 for Pinal Valley as shown on Schedules BAB-10 and BAB-15.

Operating Income Adjustment No. 7 – Income Tax Expense

Q. What is AWC proposing for test year income tax expense for Pinal Valley?

A. The Company is proposing federal income taxes of $143,745 and state income taxes of $24,465 for Pinal Valley as shown on Schedule C-2 Appendix page 37.

Q. Did Staff make any adjustments to test year income tax expense?

A. Yes. Staff's adjustment reflects Staff's calculation of the income tax expense based upon Staff's adjusted test year taxable income.

Q. What is Staff's recommendation?

A. Staff recommends increasing federal income tax expense by $232,155 and state income tax expense by $39,881 for Pinal Valley as shown on Schedules BAB-10 and BAB-16.

Operating Income Adjustment No. 8 – Property Tax Expense

Q. What is AWC proposing for test year property tax expense for Pinal Valley?

A. The Company is proposing property tax expenses of $969,214 for Pinal Valley as shown on Schedule C-2 Appendix page 34.

Q. Did Staff make any adjustments to test year income tax expense?

A. Yes. Staff's adjustment reflects Staff's calculation of the property tax expense based upon Staff's adjusted test year revenues.

Q. What is Staff's recommendation?

A. Staff recommends increasing property tax expense by $129 for Pinal Valley as shown on Schedules BAB-10 and BAB-17. This is a small adjustment but capturing this adjustment is necessary to synchronize property tax expense with Staff's other adjustments.

White Tank Operating Income Summary

Q. What are the results of Staff's analysis of test year revenues, expenses and operating income?

A. As shown on Schedules BAB-10 and BAB-11, Staff's analysis resulted in adjusted test year revenues of $2,321,542, expenses of $2,110,820 and an operating income of $210,722 for White Tank.

Operating Income Adjustment No. 1 – Weather Normalization and Declining Usage

Q. What pro forma adjustment is the Company proposing regarding test year revenues and expenses?

A. The Company's witness, claims that weather conditions in the test year were slightly wetter and cooler than normal, resulting in lower residential usage than usual for the White Tank Service Area. Therefore the Company proposes that a pro-forma adjustment is necessary to reflect more normal revenues and expenses related to weather patterns.

Q. Has AWC proposed a weather normalization adjustment to revenues in prior filings?

A. Yes. In the most recent rate case for the Northern Group[16] the Company proposed a weather normalization adjustment to revenues.

Q. Was the Company's weather normalization adjustment request approved in that case?

A. No. Per Decision No. 74081[17] in the Commission approved settlement agreement the Company's weather normalization adjustment was reversed and in its place the parties agreed to a 5 percent downward adjustment to the billing determinants to reflect declines in customer usage that continued post-test year.

[16] Docket Number W-01445A-12-0348
[17] Dated September 23, 2013

Q. Do water companies usually request weather normalization adjustments?

A. No. Staff is not aware of any recent rate case in which a weather normalization adjustment to revenues was proposed for a water company outside of the Company's most recent Northern Group rate case, as discussed.

Q. Please describe the methodology employed by the Company for its proposed Weather Normalization and Declining Usage adjustment?

A. The Company performed a regression analysis, where a base 10 logarithm of sales per customer was used as the dependent variable and the Palmer Drought Severity Index ("PDSI"), and coded monthly indicators to represent the twelve months of the year were used as independent variables. The Company attempted to use the regression models to quantify the estimated effects of weather and rate increases over time on use per customer. The estimated effects were then used by the Company to calculate its proposed weather normalization and declining usage adjustment.

Q. What is Staff's major concern with the use of statistics to justify revenue and expense pro-forma adjustments?

A. That the results can vary significantly simply by such steps as re-running statistical models using different time periods, or identifying and using different variables to achieve the desired outcome. Staff does not believe that weather normalization analysis results are truly linear so results will change if the analysis timeframe is changed.

Q. Does Staff believe that a weatherization and usage adjustment is necessary in this filing?

A. Staff believes that given the unpredictable nature of the weather, making an additional normalization adjustment to test year revenues to reflect a continuation post-test year of

anticipated weather patterns based on five years of historical data is not reasonable. However, Staff recommends adoption of a declining usage adjustment on the basis that average usage continued to decline post-test year. As a post-test year event, this adjustment is based on a known and measurable change to test year activity.

Q. What are the results of Staff's analysis of declining usage for the White Tank Service Area?

A. The Company's proposed weather normalization and declining usage adjustment for White Tank residential customers is -3.46 percent, as reflected in the adjustments shown on Schedule C-2 Appendix page 10. Staff has calculated a declining usage rate of -2.44 percent which includes nine months (January through September of 2015) of post-test year consumption for the residential customer class, using data provided to Staff in response to DR BAB 2.12c. Staff recommends an adjustment which would increase the residential customer class revenues by $10,551 and increases source of supply expenses by $162; pumping expenses by $3,662; and water treatment expenses by $1,757 as shown on Schedules BAB-11 and BAB-12.

Q. Staff's recommended adjustments are only for the residential customer class. Did Staff analyze the other customer classes?

A. Yes. In Staff DR BAB 4.3 the Company provided the customer counts and sales information for all other customer classes. Staff analyzed this information and found that the average usage for the other customer classes fluctuated widely from year to year, with increases in some years and decreases in other years and overall did not show a downward trend in average usage. For example, the commercial class saw a 16.97 percent increase from 2010 to 2011, an additional increase of 9.69 percent from 2011 to 2012, then a decrease of 8.48 percent between 2012 and 2013 before seeing an increase of 15.93 percent between 2013 and

2014. Based on this analysis, Staff determined that the data did not support making a declining usage adjustment for any other customer class other than residential.

Q. What is Staff's recommendation?

A. Staff recommends denial of the Company's proposed weather normalization and declining usage pro-forma adjustment and implementing instead a declining usage adjustment which would increase revenue for White Tank by $10,551; and increase expenses by a total of $5,581.

Operating Income Adjustment No. 2 – Salaries and Wages

Q. What adjustment to salaries and wages is the Company proposing?

A. The Company is proposing to capture an increase to salary and wage expense to account for a three percent pay increase across all positions from 2015 to 2016, and the Company included costs for six vacant positions that were expected to be filled post-test year, as shown on Schedules C-1, page 2; C-2 page 7; and C-2 Appendix page 12.

Q. Does Staff agree with the three percent increase to pay?

A. No. In Staff DR BAB 4.5c, the Company provided the actual percentage increases since 2010 (the test year in the last rate case). Based on the information provided, Staff has calculated and applied an average increase of 1.6 percent.

Q. What about the vacant test year positions?

A. In addition, per the Company's response to Staff's DR BAB 4.5b, only two of the six vacant positions were actually filled by the Company as of December 31, 2015. The Company stated that they hired five employees to fill newly created positions that did not serve test year

customers. Therefore, Staff recommends only including the two employees that were hired to serve test year customers.

Q. Did Staff make any other adjustments to salaries and wages?

A. Yes. One of the five new hires to fill a position created post-test year identified in the Company's response to Staff's DR BAB 4.5b, was included in the salaries and wages pro forma adjustment. Therefore, Staff made an adjustment to remove the salary for this position because the position did not provide service to test year customers.

Q. What is Staff's recommendation?

A. Staff recommends decreasing salaries and wages for White Tank by $89,282 as shown on Schedules BAB-11 and BAB-13.

Operating Income Adjustment No. 3 – Vehicles

Q. What adjustment for vehicle expenses is the Company proposing?

A. The Company is proposing to increase expenses for the increased cost to operate its vehicles along with the costs of six additional vehicles associated with the vacant test year positions that were expected to be filled post-test year, by a total of $11,874 for White Tank as shown on Schedules C-1, page 2; C-2 page 8; and C-2 Appendix page 23.

Q. Does Staff agree with the Company's proposed increases for vehicles for White Tank?

A. No. Similar to the salaries and wages adjustment recommended by Staff, based on the information provided by the Company in Staff DR BAB 4.5c, Staff believes that a similar adjustment for the vehicles that would be associated with the four positions that were not filled is necessary to be consistent.

Q. What is Staff's recommendation?

A. Staff recommends decreasing expenses associated with vehicles for White Tank by $5,899 as shown on Schedules BAB-11 and BAB-14a.

Operating Income Adjustment No. 4 – Life Insurance

Q. Did AWC propose an adjustment to life insurance expense?

A. Yes. As part of proposed adjustment IS-9, as shown on Schedule C-2 Appendix, page 16 of 38, the Company proposes an adjustment to insurance expense which includes the cost of life insurance.

Q. Does Staff accept the Company's life insurance adjustment?

A. No. Staff reviewed the Company's proposed insurance adjustment and found an error in the pro forma calculation in the class 1 volumes which resulted in a doubling of the life insurance expense when it should not have been adjusted at all. In DR BAB 4.10, Staff requested the 2015 life insurance invoices which verified the error and supported that an adjustment should not have been made.

Q. What is Staff's recommendation?

A. Staff recommends declining the life insurance portion of the insurance adjustment, which results in a decrease of administrative & general expenses for White Tank of $1,237 as shown on Schedules BAB-11 and BAB-14b.

Operating Income Adjustment No. 5 – Rate Case Expense

Q. How much does the Company propose to recover in rate case expenses?

A. The Company proposes to collect $486,274 in rate cases expenses for the Western Group in this filing, allocated between the three service areas and normalized over three years, as shown on each service area's Schedule BAB-14c.

Q. How did the Company develop its proposed level of total rate case expense?

A. AWC used cost estimates provided by their legal counsel and their cost of capital witness. These estimates were then combined with various other rate case expenses, such as costs associated with public notice, assistance with preparing their 2015 CAP usage plan, printing, etc., using the most recent Eastern Group rate case[18] expenses adjusted for inflation.

Q. Does Staff agree with the methodology that the Company used to estimate its proposed rate case expense?

A. Staff agrees with the allocation percentages and the three year normalization period, but disagrees with the total amount of rate case expense.

Q. How did Staff develop its recommended rate case expenses?

A. In response to RUCO's DR 1.20, AWC provided the actual rate case expenses for this proceeding as of September 24, 2015, and in response to Staff's DR BAB 4.9a, the Company provided the actual rate case expenses for the most recently adjudicated rate case, which was for its Northern Group[19]. Staff then determined a reasonable amount of rate case expenses using this combined information.

[18] Arizona Water docket W-01445A-11-0310, using a 2010 test year.
[19] Arizona Water docket W-01445A-12-0348, using a 2011 test year.

Q. Please identify how Staff's recommended rate case expense differs from the Company?

A. As shown on Schedule BAB-14c, lines 22-31, Staff is recommending a net reduction in rate case expenses of $151,157 which is primarily due to Staff's recommendation of $175,000 less in legal expenses, along with various other adjustments as reflected on the schedules from what the Company has proposed.

Q. What is Staff's recommendation?

A. Staff recommends a total rate case expense of $335,117, which is $151,157 less than the Company's proposed rate case expense of $486,274, to be normalized over a three year period and allocated using the Company's proposed allocation rates. Staff's recommended rate case expense results in an adjustment from $16,959 to $11,687 or a decrease of $5,272 for White Tank as shown on Schedules BAB-11 and BAB-14c.

Operating Income Adjustment No. 6 – Depreciation Expense

Q. What is AWC proposing for depreciation expense for the White Tank Service Area?

A. The Company is proposing a depreciation expense of $788,523 for White Tank as shown on Schedule C-2 Appendix page 28.

Q. What adjustment did Staff make to depreciation expense?

A. Staff adjusted depreciation expense to reflect Staff's calculation of depreciation expense using Staff's recommended depreciation rates, plant balances, and CIAC balances.

Q. What is Staff's recommendation?

A. Staff recommends decreasing depreciation expense by $34,678 for White Tank as shown on Schedules BAB-10 and BAB-15.

Operating Income Adjustment No. 7 – Income Tax Expense

Q. What is AWC proposing for test year income tax expense for White Tank?

A. The Company is proposing federal income taxes of negative $25,101 and state income taxes of negative $4,272 for White Tank as shown on Schedule C-2 Appendix page 37.

Q. Did Staff make any adjustments to test year income tax expense?

A. Yes. Staff's adjustment reflects Staff's calculation of the income tax expense based upon Staff's adjusted test year taxable income.

Q. What is Staff's recommendation?

A. Staff recommends increasing federal income tax expense by $35,392 and state income tax expense by $7,832 for White Tank as shown on Schedules BAB-10 and BAB-16.

Operating Income Adjustment No. 8 – Property Tax Expense

Q. What is AWC proposing for test year property tax expense?

A. The Company is proposing property tax expenses of $109,635 for White Tank as shown on Schedule C-2 Appendix page 34.

Q. Did Staff make any adjustments to test year income tax expense?

A. Yes. Staff's adjustment reflects Staff's calculation of the property tax expense based upon Staff's adjusted test year revenues.

Q. What is Staff's recommendation?

A. Staff recommends increasing property tax expense by $518 for White Tank as shown on Schedules BAB-10 and BAB-17. This is a small adjustment but capturing this adjustment is necessary to synchronize property tax expense with Staff's other adjustments.

Ajo Operating Income Summary

Q. What are the results of Staff's analysis of test year revenues, expenses and operating income?

A. As shown on Schedules BAB-10 and BAB-11 Staff's analysis resulted in adjusted test year revenues of $440,253, expenses of $407,570 and an operating income of $32,684 for Ajo.

Operating Income Adjustment No. 1 – Weather Normalization and Declining Usage

Q. What pro forma adjustment is the Company proposing regarding test year revenues and expenses?

A. The Company's witness, claims that weather conditions in the test year were drier and hotter than normal, resulting in higher residential usage than usual for the Ajo Service Area. Therefore the Company proposes that a pro-forma adjustment is necessary to reflect more normal revenues and expenses related to weather patterns.

Q. Has AWC proposed a weather normalization adjustment to revenues in prior filings?

A. Yes. In the most recent rate case for the Northern Group[20] the Company proposed a weather normalization adjustment to revenues.

Q. Was the Company's weather normalization adjustment request approved in that case?

A. No. Per Decision No. 74081[21] in the Commission approved settlement agreement the Company's weather normalization adjustment was reversed and in its place the parties agreed to a 5 percent downward adjustment to the billing determinants to reflect declines in customer usage that continued post-test year.

[20] Docket Number W-01445A-12-0348
[21] Dated September 23, 2013

Q. Do water companies usually request weather normalization adjustments?

A. No. Staff is not aware of any recent rate case in which a weather normalization adjustment to revenues was proposed for a water company outside of the Company's most recent Northern Group rate case, as discussed.

Q. Please describe the methodology employed by the Company for its proposed Weather Normalization and Declining Usage adjustment?

A. The Company performed a regression analysis, where a base 10 logarithm of sales per customer was used as the dependent variable and the Palmer Drought Severity Index ("PDSI"), and coded monthly indicators to represent the twelve months of the year were used as independent variables. The Company attempted to use the regression models to quantify the estimated effects of weather and rate increases over time on use per customer. The estimated effects were then used by the Company to calculate its proposed weather normalization and declining usage adjustment.

Q. What is Staff's major concern with the use of statistics to justify revenue and expense pro-forma adjustments?

A. The results can vary significantly simply by such steps as re-running statistical models using different time periods, or identifying and using different variables to achieve the desired outcome. Staff does not believe that weather normalization analysis results are truly linear so results will change if the analysis timeframe is changed.

Q. Does Staff believe that a weatherization and usage adjustment is necessary in this filing?

A. Staff believes that given the unpredictable nature of the weather, making an additional normalization adjustment to test year revenues to reflect a continuation post-test year of

anticipated weather patterns based on five years of historical data is not reasonable. However, Staff recommends adoption of a declining usage adjustment on the basis that average usage continued to decline post-test year. As a post-test year event, this adjustment is based on a known and measurable change to test year activity.

Q. What are the results of Staff's analysis of declining usage for the Ajo Service Area?

A. The Company's proposed weather normalization and declining usage adjustment for Ajo residential customers is -5.44 percent, as reflected in the adjustments shown on Schedule C-2 Appendix page 11. Staff has calculated a declining usage rate of -3.76 percent which includes nine months (January through September of 2015) of post-test year consumption for the residential customer class, using data provided to Staff in response to DR BAB2.12c. Staff recommends an adjustment that would increase the residential customer class revenues by $2,365 and increases source of supply expenses by $1,416; pumping expenses by $250; and water treatment expenses by $283 as shown on Schedules BAB-11 and BAB-12.

Q. Staff's recommended adjustments are only for the residential customer class. Did Staff analyze the other customer classes?

A. Yes. In Staff DR BAB 4.3 the Company provided the customer counts and sales information for all other customer classes. Staff analyzed this information and found that the average usage for the other customer classes fluctuated widely from year to year, with increases in some years and decreases in other years and overall did not show a downward trend in average usage. For example, the commercial class saw a 9.27 percent increase from 2010 to 2011, an increase of 2.69 percent from 2011 to 2012, then decreases of 4.02 and 5.46 percent between 2012, 2013, and 2014. Based on this analysis, Staff determined that the data did not support making a declining usage adjustment for any other customer class other than residential.

Q. What is Staff's recommendation?

A. Staff recommends denial of the Company's proposed weather normalization and declining usage pro-forma adjustment and implementing instead a declining usage adjustment which would increase revenue by $2,365; and increase expenses by a total of $1,950.

Operating Income Adjustment No. 2 – Salaries and Wages

Q. What adjustment to salaries and wages is the Company proposing?

A. The Company is proposing to capture an increase to salary and wage expense to account for a three percent pay increase across all positions from 2015 to 2016, and the Company included costs for six vacant positions that were expected to be filled post-test year, as shown on Schedules C-1, page 3; C-2 page 10; and C-2 Appendix page 12.

Q. Does Staff agree with the three percent increase to pay?

A. No. In Staff DR BAB 4.5c, the Company provided the actual percentage increases since 2010 (the test year in the last rate case). Based on the information provided, Staff has calculated and applied an average increase of 1.6 percent.

Q. What about the vacant test year positions?

A. In addition, per the Company's response to Staff's DR BAB 4.5b, only two of the six vacant positions were actually filled by the Company as of December 31, 2015. The Company stated that they hired five employees to fill newly created positions that did not serve test year customers. Therefore, Staff recommends only including the two employees that were hired to serve test year customers.

Q. Did Staff make any other adjustments to salaries and wages?

A. Yes. One of the five new hires to fill a position created post-test year identified in the Company's response to Staff's DR BAB 4.5b, was included in the salaries and wages pro forma adjustment. Therefore, Staff made an adjustment to remove the salary for this position because the position did not provide service to test year customers.

Q. What is Staff's recommendation?

A. Staff recommends decreasing salaries and wages for Ajo by $2,179 as shown on Schedules BAB-11 and BAB-13.

Operating Income Adjustment No. 4 – Life Insurance

Q. Did AWC propose an adjustment to life insurance expense?

A. Yes. As part of proposed adjustment IS-9, as shown on Schedule C-2 Appendix, page 16 of 38, the Company proposes an adjustment to insurance expense which includes the cost of life insurance.

Q. Does Staff accept the Company's life insurance adjustment?

A. No. Staff reviewed the Company's proposed insurance adjustment and found an error in the pro forma calculation in the class 1 volumes which resulted in a doubling of the life insurance expense when it should not have been adjusted at all. In DR BAB 4.10, Staff requested the 2015 life insurance invoices which verified the error and supported that an adjustment should not have been made.

Q. What is Staff's recommendation?

A. Staff recommends declining the life insurance portion of the insurance adjustment, which results in a decrease of administrative & general expenses for Ajo of $447 as shown Schedules BAB-11 and BAB-14b.

Operating Income Adjustment No. 5 – Rate Case Expense

Q. How much does the Company propose to recover in rate case expenses?

A. The Company proposes to collect $486,274 in rate cases expenses for the Western Group in this filing, allocated between the three service areas and normalized over three years, as shown on each service area's Schedule BAB-14c.

Q. How did the Company develop its proposed level of total rate case expense?

A. AWC used cost estimates provided by their legal counsel and their cost of capital witness. These estimates were then combined with various other rate case expenses, such as costs associated with public notice, assistance with preparing their 2015 CAP usage plan, printing, etc., using the most recent Eastern Group rate case[22] expenses adjusted for inflation.

Q. Does Staff agree with the methodology that the Company used to estimate its proposed rate case expense?

A. Staff agrees with the allocation percentages and the three year normalization period, but disagrees with the total amount of rate case expense.

Q. How did Staff develop its recommended rate case expenses?

A. In response to RUCO's DR 1.20, AWC provided the actual rate case expenses for this proceeding as of September 24, 2015, and in response to Staff's DR BAB 4.9a, the Company

[22] Arizona Water docket W-01445A-11-0310, using a 2010 test year.

provided the actual rate case expenses for the most recently adjudicated rate case, which was for its Northern Group[23]. Staff then determined a reasonable amount of rate case expenses using this combined information.

Q. Please identify how Staff's recommended rate case expense differs from the Company?

A. As shown on Schedule BAB-14c, lines 22-31, Staff is recommending a net reduction in rate case expenses of $151,157 which is primarily due to Staff's recommendation of $175,000 less in legal expenses, along with various other adjustments as reflected on the schedules from what the Company has proposed.

Q. What is Staff's recommendation?

A. Staff recommends a total rate case expense of $335,117, which is $151,157 less than the Company's proposed rate case expense of $486,274, to be normalized over a three year period and allocated using the Company's proposed allocation rates. Staff's recommended rate case expense results in an adjustment from $3,083 to $2,125 or a decrease of $958 for Ajo as shown on Schedules BAB-11 and BAB-14c.

Operating Income Adjustment No. 6 – Depreciation Expense

Q. What is AWC proposing for depreciation expense for the Ajo Service Area?

A. The Company is proposing depreciation expenses of $66,337 for Ajo as shown on Schedule C-2 Appendix page 29.

[23] Arizona Water docket W-01445A-12-0348, using a 2011 test year.

Q. What adjustment did Staff make to depreciation expense?

A. Staff adjusted depreciation expense to reflect Staff's calculation of depreciation expense using Staff's recommended depreciation rates, plant balances, and CIAC balances.

Q. What is Staff's recommendation?

A. Staff recommends decreasing depreciation expense by $1,947 for Ajo as shown on Schedules BAB-10 and BAB-15.

Operating Income Adjustment No. 7 – Income Tax Expense

Q. What is AWC proposing for test year income tax expense for Ajo?

A. The Company is proposing federal income taxes of negative $975 and state income taxes of negative $166 for Ajo as shown on Schedule C-2 Appendix page 37.

Q. Did Staff make any adjustments to test year income tax expense?

A. Yes. Staff's adjustment reflects Staff's calculation of the income tax expense based upon Staff's adjusted test year taxable income.

Q. What is Staff's recommendation?

A. Staff recommends increasing federal income tax expense by $1,451 and state income tax expense by $351 for Ajo as shown on Schedules BAB-10 and BAB-16.

Operating Income Adjustment No. 8 – Property Tax Expense

Q. What is AWC proposing for test year property tax expense?

A. The Company is proposing property tax expenses of $20,086 for Ajo as shown on Schedule C-2 Appendix page 34.

Q. Did Staff make any adjustments to test year income tax expense?

A. Yes. Staff's adjustment reflects Staff's calculation of the property tax expense based upon Staff's adjusted test year revenues.

Q. What is Staff's recommendation?

A. Staff recommends increasing property tax expense by $106 for Ajo as shown on Schedules BAB-10 and BAB-17. This is a small adjustment but capturing this adjustment is necessary to synchronize property tax expense with Staff's other adjustments.

UNIFORM SYSTEM OF ACCOUNTS

Q. Is the Company using a version of the NARUC USoA for Class A water utilities to record expenses?

A. Yes.

Q. Which version of the NARUC USoA for Class A water utilities is the Company using?

A. AWC is using the version of the USoA from 1976.

Q. Is there a more current version that the Company should be using?

A. Yes. The USoA was updated most recently in 1996.

Q. Please provide an example of some differences between the 1976 and 1996 versions of the USoA.

A. A prime example that illustrates the differences between the two versions is salaries and wages. In the 1996 version, there are two account numbers, 601 and 603 that are used to record salaries and wages. In the 1976 version there are at least 50 account numbers: 600, 601, 603, 610 - 617, 620, 622, 624, 626, 630 - 633, 640, 642, 643, 650 - 652, 660 - 665, 670 -

678, 901 - 903, 905, 907, 910, 920, 930.1, 930.2, and 932 that are used at least in part to record salaries and wages. For the Western Group service areas in this filing, the Company is using 28 of these codes for the Pinal Valley Service Area ("Pinal Valley"), 27 of these codes for the White Tank Service Area ("White Tank"), and 25 of these codes for the Ajo Service Area ("Ajo").

Q. Is this the only issue related to salaries and benefits?

A. No. In addition to the much higher number of accounts that include salaries and wages, many of the 1976 accounts also include other imbedded expenses. For example, account number 611 is the "Maintenance of Structures and Improvement" account, whose description states in part that "this account shall include the cost of labor, materials used and expenses incurred in the maintenance of structures and improvements."[24] This increases the amount of work necessary for Staff and the other parties to differentiate the salaries and wages from other expenses.

Q. What is the result of the Company using an outdated System of Accounts?

A. As demonstrated with the salaries and wages example, by using an older version of the NARUC account codes, it has increased the amount of time and resources necessary to conduct the audit for this rate case. Staff and the other parties have had to spend additional time evaluating a far larger number of account codes and unraveling and cross-referencing expenses in order to be able to analyze them in a format consistent with how other regulated utilities keep their books.

[24] Uniform System of Accounts for Class A and B Water Utilities 1976, page 111

Q. What are some other potential benefits to the Company of transitioning to the more current version of the System of Accounts?

A. In addition to simplifying the rate case analysis and processing, other added benefits to the Company include simplifying the recording and reporting of expenses. With fewer account codes it should be less burdensome to record expenses than it currently is for the Company. Also, it should take the Company less time and effort to compile and fill out the annual report. At present, the Company has to drastically modify the annual report template provided by the Commission in order to get it to work with their current coding. An additional benefit to the Commission and investors with the annual report is that it will allow for a comparison to other regulated companies in Arizona.

Q. Are there other ACC-regulated water companies that also are using the 1976 version of the USoA?

A. As far as Staff is aware Arizona Water is the only water company using the 1976 version of the USofA.

Q. Does the Company have any plans to transition to using a newer version of the USoA?

A. No. In response to Staff's DR BAB 1.17[25], the Company stated that because the ACC has never taken any action in prior rate cases, nor through rulemaking, that there are currently no plans to convert.

Q. Will there be costs associated with any transition ordered by the Commission?

A. Yes; however, as indicated in response to Staff's DR BAB 1.17, the Company stated because there are currently no plans to convert they have not evaluated potential costs, but Staff realizes that there will be costs associated with this transition.

[25] See Attachment D.

Q. What is Staff's recommendation?

A. Staff strongly recommends that the Company be required to start using the most current version of the NARUC USoA, at present the 1996 version, within 180 days of the effective date of the decision in this matter. Further, Staff recommends that any reasonable costs associated with this transition be deferred by the Company for cost recovery consideration in the next rate case. Staff would note the total cost of this conversion should be allocated across all of the AWC operating groups and service areas.

ACCUMULATED DEPRECIATION

Q. Has Staff identified any additional accounting issues?

A. Yes, in addition to the NARUC USoA version issue, the Company is also not keeping their accumulated depreciation reserve accounts in compliance with Arizona Administrative Code[26].

Q. How is the Company accounting for Accumulated Depreciation?

A. In response to Staff DR BAB 2.2[27], the Company stated that they do not maintain accumulated depreciation reserve balances by plant account. Further, in response to Residential Utility Consumer Office ("RUCO") DR 4.01[28], the Company provided clarification stating that per Decision No. 64282[29] dated December 28th, 2001, the Company was granted a waiver from the administrative code requiring them to keep accumulated depreciation reserve balances by plant account.

[26] A.A.C. R14-2-102(B)
[27] See Attachment E
[28] See Attachment F
[29] Docket W-01445A-00-0962, page 12, lines 10-16

Q. Does Staff agree with the Company's interpretation of the waiver granted in Decision No. 64282?

A. No. The Decision stated "although we are granting the Company's waiver in this case, in order to give effect to the requirements set forth in our rules we believe it is appropriate for Arizona Water to develop component depreciation rates for all 18 of its systems. Therefore, the Company should file in its next rate case application, a schedule of component depreciation rates for all of its systems."[30].

Q. Why is it important for the Company to track depreciation by component plant account?

A. As noted in response to Staff DR BAB 2.3[31], the Company stated that it "uses a group depreciation accounting methodology under which a property group is depreciated at a Commission-approved rate, based on the average service life of all property units/investment in the group." Under this depreciation methodology, it is important for the Company to track depreciation by component plant account for several reasons. First is to support that the total depreciation booked for any specific property group stops when that investment is fully recovered. Next is that in order to effectively use the group method, a Company should periodically conduct a depreciation study with the end result being that the actual useful life of each property group asset is used to adjust the depreciation rate for that group. This will ensure that the Company isn't over or under recovering its investments. Finally, tracking depreciation by each property group allows Staff and other parties during rate cases to better verify the accumulated depreciation reserve balance and that the Commission authorized depreciation rates are being used.

[30] Page 12 lines 10-13. Note, at the time of this Decision, the Company had 18 service areas, in later rate cases some of the service areas have been consolidated.
[31] See Attachment G

Q. What is Staff's recommendation?

A. Staff recommends that the Company be ordered to start maintaining accumulated depreciation reserve balances by plant property group on a going forward basis.

CENTRAL ARIZONA PROJECT TREATMENTS

Water Use Plan

Q. Did AWC file an updated CAP water use plan?

A. Yes, on August 7, 2015, the Company filed an updated CAP water use plan for its Pinal Valley and White Tank Service Areas.

Q. How does the Company's updated CAP Water Use Plan differ from the CAP Water Use Plan filed by the Company in 2006?

A. The primary difference between the two plans is that the Company has determined that it is more economical to build Underground Storage Facilities ("USF"), by which the Company would use its CAP allocations through groundwater recharge, storage and recovery as opposed to Surface Treatment Facilities. They calculate that using USF's would save rate payers in Pinal Valley $24 per month or 89 percent and the ratepayers in White Tank $33 per month or 77 percent.

Q. What is Staff's recommendation?

A. Staff recommends approval of the Company's proposed 2015 CAP Water Use Plan.

Accounting order

Q. Is the Company requesting an accounting order to address 2015 CAP Municipal and Industrial ("M&I") costs?

A. Yes, as discussed on page 27 of Mr. Reiker's testimony, the Company is seeking an accounting order that would allow the Company to defer the costs of delivering CAP water to customers in 2015.

Q. What are the specifics in the Company's request?

A. The Company incurred $715,000 in 2015 for the delivery of CAP water to general service customers. The Company received a Water Management Assistance Program grant from the Arizona Department of Water Resources that covered half or $357,500 of this expense. AWC is seeking recovery of the remaining half of their 2015 CAP expenses through an accounting order that would allow them to recover these expenses over a three year period.

Q. What is Staff's recommendation?

A. Staff recommends approving an accounting order that would allow the Company to defer $357,500 in 2015 CAP charges over a three year period or $119,167 per year.

CAP Surcharge

Q. Has the Company proposed a CAP surcharge mechanism in this case?

A. Yes. The Company proposes a CAP surcharge mechanism that would recover the difference in the cost of CAP water for recharge and recovery and the adjusted test year 2014 costs as approved in this case.

Q. Have you reviewed the Company's CAP surcharge mechanism?

A. Yes. The Company proposes the following six components be included in its CAP surcharge mechanism:

1. Prior year Under/Over Recovery
2. Estimated Payments/Expense for the Applicable Year
3. Amortization of Additional Deferred CAP M&I Charges
4. CAP Water Surcharge Revenue
5. Current Year Surcharge Calculation
6. Monthly CAP Water Surcharge per Average Residential Customer

Q. Does Staff recommend that the Estimated Payments/Expense (component 2) be included in the CAP surcharge mechanism?

A. No. While the CAP M&I delivery charges are set in advance, the total amount the Company is charged may vary depending on the actual deliveries. While the Company can plan for a certain level of usage based on their revised 2015 CAP plan, the actual amount may not be known and measurable until after the year is complete. Therefore, Staff recommends that the actual CAP M&I delivery charges be used for the water that the Company actually used.

Q. Does Staff agree with the Company's treatment of the Amortization of Additional Deferred CAP M&I Charges (component 3) which includes a return of investment plus income taxes as proposed by the Company in the CAP surcharge mechanism?

A. No. While Staff agrees that as the Company's usage of their CAP allocation increases, their recovery of the deferred CAP M&I capital charges should increase proportionally, the historic treatment of this recovery has been to amortize the recovery over 20 years. In the Company's proposed treatment, they would recover the full increased used and useful

portion, including a return on along with taxes of the deferred M&I capital charges in the year they become used and useful. Staff believes this treatment is inconsistent with how the deferred CAP M&I capital charges were treated in previous decisions and recommends that any additional deferred CAP M&I capital costs that become used and useful in between rate cases also be amortized over 20 years.

Q. What does Staff recommend related to the CAP surcharge mechanism?

A. Staff recommends:

1. Approval of the mechanism. However, the Company must file, in this Docket, a surcharge initiative request once CAP costs become known and measurable based on actual deliveries beyond what is included in base rates in this rate case.

2. That the Company recover any increased portion of the used and useful deferred CAP M&I capital charges over a 20 year period consistent with prior treatment.

3. That any continuation of CAP surcharges be reviewed in the Company's next rate case.

Off-Site Facility Fee

Q. Has the Company proposed an off-site facilities fee for the White Tank Service Area in this case?

A. Yes. The Company proposes an off-site facilities fee to help offset the costs of constructing additional plant to provide for water production, treatment, delivery, storage, and pressure facilities in the White Tank Service Area. This fee would only be applicable to new service connections in the service area. The proposed fee is $2,500 for a 5/8 x 3/4-inch metered

customer, and it increases by the American Water Works Association capacity multipliers for larger meter sizes.

Q. What is Staff's recommendation?

A. Staff concludes that the proposed off-site facilities fees are reasonable, and recommends the adoption of the specific tariff language contained in Exhibit A of the Staff engineering witness' testimony.

SYSTEM IMPROVEMENT BENEFIT ("SIB") SURCHARGE

Q. Has the Company requested a SIB Surcharge?

A. Yes, as discussed on pages 5-8 of Mr. Harris' testimony, this surcharge would allow the Company to replace aging and failing infrastructure, to maintain the integrity of its water distribution system and provide safe reliable and adequate water service.

Q. What is a SIB?

A. A SIB is a surcharge mechanism that enables the Company to implement and/or change a surcharge to recover the cost of certain items of plant between rate cases.

Q. According to the Company, what are the benefits of a SIB?

A. The Company states that a SIB will benefit customers in older service areas such as the Pinal Valley and Coolidge Airport where infrastructure is reaching the end of its useful life and larger levels of capital investment, coupled with the lag associated with the use of historic test years, will result in larger step increases in rates at the time new rates are approved by the Commission. The Company further states that, with the SIB, once reinvestments are made in qualifying infrastructure, rates would be raised gradually and in smaller steps.

Q. Has a SIB been approved in any other cases for AWC?

A. Yes, the Commission has approved a SIB mechanism for the Company's Eastern[32] and Northern[33] Groups but a recent court decision vacated the Commission's previous approval of the SIB mechanism. On August 18, 2015, the Arizona Court of Appeals concluded that the SIB mechanism does not comply with the Arizona Constitution's mandate that the Commission determine a public service corporation's fair value when setting rates[34]. The Commission stayed all approve SIB mechanisms pending the outcome of the appeal. This appeal is currently pending at the Arizona Supreme Court.

Q. What steps did Staff undertake in evaluating the Company's SIB filing approval request in this Docket?

A. The step undertaken and Staff's findings are addressed in the testimony of the Engineering Testimony sponsored by Staff witness Mr. Frank Smaila.

Q. What is Staff's recommendation?

A. Staff recommends the Commission deny the SIB filing due to a lack of project prioritization and cost schedules, the inability of the Company to complete proposed projects within a reasonable timeframe and water loss of less than 10 percent for all water systems. Details of this Staff recommendation are addressed in the testimony of Staff witness Mr. Frank Smaila. Staff recommends that this SIB approval request be denied due to uncertainties accompanying the pending Supreme Court appeal.

[32] Docket Number W-01445A-11-0310
[33] Docket Number W-01445A-12-0348
[34] Arizona Court of Appeals Case No. 1 CA-CC 13-0002

ARSENIC COST RECOVERY MECHANISM ("ACRM")

Q. Please describe the Company's history with the ACRM surcharge.

A. In November of 2000, the Company filed a rate case for its Northern Group in which the Company requested among other rate making treatments, recovery of arsenic treatment costs arising from rules established by the United States Environmental Protection Agency ("EPA") that required the maximum contaminants levels ("MCL") for arsenic in potable water be reduced from 50 parts per billion ("ppb") to 10 ppb, effective January 2006. In Decision Nos. 66400[35] for the Northern Group, 66849[36] for the Eastern Group and 68302[37] for the Western Group, the Company was authorized to request the use of the ACRM to recover the costs of adding arsenic treatment plant in between rate cases through the use of a surcharge, and this approval has been renewed in multiple cases since.

Q. Has the Company specifically asked in this Docket to be allowed to continue to request the use of the ACRM mechanism?

A. Yes.

Q. What is the reason behind the Company's request?

A. The Company stated that they continue to face significant costs to build treatment plant to meet safe drinking water standards, and that "the ACRM has proven to be an effective mechanism to facilitate recovery of federally mandated costs to construct and operate water treatment plants for the purpose of complying with safe drinking water standards.[38]"

[35] Dated October 14, 2003.
[36] Dated March 9, 2004.
[37] Dated November 14, 2005.
[38] In Mr. Garfield's testimony in Section II, starting on page 6.

Q. Does the Company have any immediate plans to add additional arsenic treatment plants?

A. Yes. In Mr. Harris' testimony, in Section II, starting on page 4, and in Mr. Schneider's testimony in Section VI, starting on page 46, the Company indicates that additional arsenic treatment plant is necessary at Well No. 34 in the Pinal Valley service area. The Company indicated that it has already started to plan and design the plant and estimates that it will cost approximately $3.4 million. The Company anticipates having this treatment plant online by December 31, 2016.

Q. Has the Company requested specific rate making consideration in this Docket for any additional arsenic treatment plant?

A. Yes. The Company included as a post-test year addition a project for arsenic treatment plant at Well No. 13 in the Pinal Valley service area. However, due to test year cut-off considerations, Staff found that this plant was not used and useful in this Docket because it was not in service by December 31, 2015, the cut-off date Staff is applying to all post-test year plant additions. This project is estimated to cost $1.5 million and similar to the treatment plant at Well No. 34 is anticipated to be placed in service by December 31, 2016.

Q. Does Staff agree that the Company has the need for arsenic treatment plant at Wells No. 13 and 34?

A. Yes. As noted in the Engineer's Report, Staff agrees that there is a need to in the near future treat the water at Well Nos. 13 and 34 in the Pinal Valley service area, for arsenic and that work is expected to be completed by the end of 2016.

Q. What is Staff's recommendation related to these two specific projects?

A. Staff recommends that the Commission continue authorization for an ACRM that preserves eligibility for an ACRM surcharge limited to only the new arsenic treatment facilities at Wells No. 13 and 34 in the Pinal Valley Service area. Whether additional project specific ACRM surcharges are granted should be reserved and subject to further review upon each application by the Company for an ACRM surcharge.

Q. What is Staff's recommendation related to any additional unspecified future projects?

A. For future projects beyond the Well Nos. 13 and 34 projects, Staff recommends that due to the length of time that has passed since the EPA changed the arsenic MCLs, the Commission put the Company on notice that any additional arsenic treatment facilities that will be required at some unidentified point in the future will be evaluated for possible inclusion in rate base through the normal rate case process.

NITRATE COST RECOVERY MECHANISM ("NCRM")

Q. Has the Company requested approval of a cost recovery mechanism that would be used to pay for the cost of Nitrate water quality compliance?

A. Yes. In Mr. Garfield's testimony in Section VI, starting on page 29, in Mr. Harris' testimony in Section IV, starting on page 8, and in Mr. Schneider's testimony in Section X, starting on page 97, the Company makes its case for approval of a NCRM.

Q. What is the reason behind the Company's request?

A. The Company stated that to meet safe drinking water standards it is necessary to build four nitrate treatment facilities in the Pinal Valley Service Area, in addition to the three facilities they have already placed in service.

Q. Does Staff agree that the Company has the need for nitrate treatment?

A. Yes. As noted in the Staff Engineer's Report, Staff agrees that there is a need to in the near future treat the water at four of the Company's Pinal Valley wells.

Q. Has the Commission approved a NCRM before?

A. No. Staff is not aware of any rate cases where the Commission has approved a NCRM.

Q. How does AWC propose the NCRM would work?

A. The Company proposes that the NRCM would work exactly like the ACRM as approved in Decision No. 66400, dated October 14, 2003. This includes a two-step process, with step-one being the recovery of the capital costs, and step-two being the recovery of specific operating expenses. There are also specific reports required to be filed that show the Company's current financial position at the time they request a step-one ACRM surcharge.[39]

Q. Has there been a change to the nitrate standards in providing safe drinking water?

A. No.

Q. Would there be such an extreme financial hardship for the four facilities planned in the Pinal Valley Service Area?

A. No. The Company's engineers estimate that it will cost $26 million to construct these four facilities.[40] As shown on Pinal Valley Schedule BAB-3 the total Staff adjusted plant in service is $125 million and the total rate base is $57.8 million.

[39] Decision No. 66400, page 14, lines 9-16.
[40] Direct Testimony of Mr. Joe Harris, page 9 lines 4-5.

Q. What is Staff's recommendation?

A. Staff recommends that the Commission deny the Company's request for an NCRM. While Staff agrees that the Company needs treatment facilities to address this compliance issue, it can be handled like it is being handled for the facilities already placed in service by the Company, and that is through recognition of nitrate treatment investments in rate base during the normal rate case process.

PURCHASED POWER ADJUSTMENT MECHANISM ("PPAM")

Q. Has the Company requested a PPAM?

A. Yes.

Q. What is a PPAM?

A. A PPAM is a mechanism that allows the Company to pass through increases or decreases in power expenses to customers without coming in for a full rate case. By definition, adjustor mechanisms are for expenses that routinely fluctuate widely. In AWC's case, purchased power expenses have not fluctuated drastically. Power costs for electric utility companies such as Arizona Public Service that buy electricity on a daily basis will usually see wide fluctuations in buying its power. By comparison, water utilities power expenses are much less volatile.

Q. What reasons did AWC give for justifying a PPAM?

A. The Company stated in Mr. Reiker's testimony (page 48, line 8) "*.....electric power has become increasingly volatile in recent years, particularly as a result of the number of surcharges and adjustor mechanisms authorized for and used by the Company's electric providers.*" Further, the Company stated that the Commission had previously approved a PPAM for AWC that was deactivated in

Decision No. 71845. They propose to update their AM-253 tariff which defines how the PPAM would function.

Q. Did Staff analyze the Company's purchased power expense?

A. Yes. Staff reviewed the purchased power invoices/statements provided by the Company as part of their application and the additional information provided by the Company in response to Staff DR BAB 4.6. Based on this review and a review of the electricity adjustor mechanisms listed in the Company's testimony, Staff's agrees with the Company that purchased power has been and is likely to be volatile.

Q. What is Staff's recommendation?

A. Staff recommends approval of the Company's proposed PPAM with the following conditions:

(1) AWC is allowed to pass through to its customers the increase or decrease in purchased power costs that result from a rate change from any regulated electric service provider supplying retail service to AWC.

(2) Within 90 days of the Decision for this rate filing, AWC must file a Plan of Administration ("POA") for the PPAM for Commission approval.

(3) AWC will only recover increases or refund decreases that are due to changes in purchased power rates.

Q. Does this conclude Staff's direct testimony?

A. Yes, it does.

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield)
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DIRECT TESTIMONY OF BRITON BAXTER

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Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield) **Schedule BAB-1**
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REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	[A] COMPANY ORIGINAL COST	[B] STAFF ORIGINAL COST
1	Adjusted Rate Base	$61,344,294	$57,867,309
2	Adjusted Operating Income (Loss)	$2,215,361	$2,558,296
3	Current Rate of Return (L2 / L1)	3.61%	4.42%
4	Required Rate of Return	8.93%	8.02%
5	Required Operating Income (L4 * L1)	$5,478,045	$4,640,958
6	Operating Income Deficiency (L5 - L2)	$3,262,684	$2,082,662
7	Gross Revenue Conversion Factor	1.6403	1.6319
8	Required Revenue Increase (L7 * L6)	$5,351,781	$3,398,668
9	Adjusted Test Year Revenue	$18,467,889	$18,467,889
10	Proposed Annual Revenue (L8 + L9)	$23,819,670	$21,866,557
11	Required Increase in Revenue (%)	28.98%	18.40%

References:
Column [A]: Company Schedule B-1
Column [B]: Staff Schedules BAB-2, BAB-4, BAB-10, BAB-11 and David Parcell Testimony

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield)
Docket No. W-01445A-15-0277
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Schedule BAB-2

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	[A]	[B]	[C]
	Calculation of Gross Revenue Conversion Factor:			
1	Revenue	100.0000%		
2	Uncollectible Factor (Line 11)	0.0000%		
3	Revenues (L1 - L2)	100.0000%		
4	Combined Federal and State Tax Rate (L17) + Property Tax Factor (L22)	38.7212%		
5	Subtotal (L3 - L4)	61.2788%		
6	**Revenue Conversion Factor (L1 / L5)**	1.6319		
	Calculation of Uncollectible Factor:			
7	Unity	100.0000%		
8	Combined Federal and State Tax Rate (L17)	37.6300%		
9	One Minus Combined Income Tax Rate (L7 - L8)	62.3700%		
10	Uncollectible Rate	0.0000%		
11	Uncollectible Factor (L9 * L10)	0		
	Calculation of Effective Tax Rate:			
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%		
13	Arizona State Income Tax Rate	5.5000%		
14	Federal Taxable Income (L12 - L13)	94.5000%		
15	Applicable Federal Income Tax Rate (L44)	34.0000%		
16	Effective Federal Income Tax Rate (L14 * L15)	32.1300%		
17	Combined Federal and State Income Tax Rate (L13 + L16)	37.6300%		
	Calculation of Effective Property Tax Factor			
18	Unity	100.0000%		
19	Combined Federal and State Tax Rate (L17)	37.6300%		
20	One Minus Combined Income Tax Rate (L18 - L19)	62.3700%		
21	Property Tax Factor (BAB-17, L24)	1.7496%		
22	Effective Property Tax Factor (L21 * L22)	0.010912255		
23	Combined Federal and State Tax and Property Tax Rate (L17 + L22)		38.7212%	
24	Required Operating Income (Schedule BAB-1, L5)	$4,640,958		
25	Adjusted Test Year Operating Income (Loss) (Schedule BAB-10, L28)	2,558,296		
26	Required Increase in Operating Income (L24 - L25)		$2,082,662	
27	Income Taxes on Recommended Revenue (Col. [D], L52)	$1,696,790		
28	Income Taxes on Test Year Revenue (Col. [B], L52)	440,247		
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		$1,256,543	
30	Recommended Revenue Requirement (Schedule BAB-1, L10)	$21,866,557		
31	Uncollectible Rate (L10)	0.0000%		
32	Uncollectible Expense on Recommended Revenue (L24 * L25)	$0		
33	Adjusted Test Year Uncollectible Expense	$0		
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32 - L33)		$0	
35	Property Tax with Recommended Revenue (BAB-17, L19)	$1,028,806		
36	Property Tax on Test Year Revenue (BAB-17, L20)	969,343		
37	Increase in Property Tax Due to Increase in Revenue (BAB-17, L21)		$59,463	
38	Total Required Increase in Revenue (L26 + L30 + L34 + L37)		$3,398,668	

	Calculation of Income Tax:	Test Year	STAFF Recommended
39	Revenue (Schedule BAB-10, Col.[C], L8 & Sch. BAB-1, Col. [B], L10)	$18,467,889	$21,866,557
40	Operating Expenses Excluding Income Taxes	15,469,346	15,528,809
41	Synchronized Interest (L47)	1,828,607	1,828,607
42	Arizona Taxable Income (L36 - L37 - L38)	$1,169,936	$4,509,141
43	Arizona State Income Tax Rate	5.5000%	5.5000%
44	Arizona Income Tax (L39 * L40)	$64,346	$248,003
45	Federal Taxable Income (L33 - L35)	1,105,590	4,261,138
46	Federal Tax on First Income Bracket ($1 - $50,000) @ 15%	7,500	7,500
47	Federal Tax on Second Income Bracket ($50,001 - $75,000) @ 25%	6,250	6,250
48	Federal Tax on Third Income Bracket ($75,001 - $100,000) @ 34%	8,500	8,500
49	Federal Tax on Fourth Income Bracket ($100,001 - $335,000) @ 39%	91,650	91,650
50	Federal Tax on Fifth Income Bracket ($335,001 -$10,000,000) @ 34%	262,000	1,334,887
51	Total Federal Income Tax	375,900	1,448,787
52	Combined Federal and State Income Tax (L35 + L42)	$440,247	$1,696,790
53	Applicable Federal Income Tax Rate (Col. [D], L42 - Col. [B], L42] / [Col. [C], L36 - Col. [A], L36)		34.00%
	Calculation of Interest Synchronization:		
54	Rate Base (Schedule BAB-3, Col. [C], L28)	$57,867,309	
55	Weighted Average Cost of Debt	3.16%	
56	Synchronized Interest (L45 * L46)	$1,828,607	

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield) **Schedule BAB-3**
Docket No. W-01445A-15-0277
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RATE BASE - ORIGINAL COST/FAIR VALUE

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	REF	[C] STAFF AS ADJUSTED
1	Plant in Service	$172,895,727	($3,208,287)	1	$169,687,440
2	Less: Accumulated Depreciation	44,260,678	0		44,260,678
3	Net Plant in Service	$128,635,049	($3,208,287)		$125,426,762
4					
5	*LESS:*				
6					
7	Net Contribution in Aid-of Construction (CIAC)	$24,300,021	$0		$24,300,021
8					
9	Advances in Aid of Construction (AIAC)	36,540,428	0		36,540,428
10					
11	Customer Deposits	422,585	0		422,585
12					
13	Deferred Income Tax Credits	12,343,427	0		12,343,427
14					
15	Total Deductions	$73,606,461	$0		$73,606,461
16					
17	*ADD:*				
18	Unamortized Finance Charges	$0	$0		$0
19					
20	Deferred Tax Assets	0	0		0
21					
22	Allowance for Working Capital	1,561,902	(268,698)	2	1,293,204
23					
24	Net Regulatory Asset / (Liability)	4,753,804	0		4,753,804
25					
26	Total Additions	$6,315,706	($268,698)		$6,047,008
27					
28	**Original Cost Rate Base**	**$61,344,294**	**($3,476,985)**		**$57,867,309**

References:
Column [A]: Company Schedule B-1
Column [B]: Schedule BAB-4
Column [C]: Column [A] + Column [B]

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield) **Schedule BAB-4**
Docket No. W-01445A-15-0277
Test Year December 31, 2014

SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Post Test Year ADJ No. 1 Ref: Sch BAB-5	[C] Allowance for Working Capital ADJ No. 2 Ref: Sch BAB-6	[D] STAFF ADJUSTED
		PLANT IN SERVICE:				
1	301	Organization Costs	$216	$0	$0	$216
2	302	Franchise Costs	82,969	0	0	82,969
3	303	Other Intangibles	1,906,112	0	0	1,906,112
4	310.1	Water Rights	366,071	0	0	366,071
5	310.3	Other Source of Supply Land	298,575	0	0	298,575
6	310.4	Wells - Other	0	0	0	0
7	314	Wells	6,982,428	0	0	6,982,428
8	320	Pumping Plant Land	31,897	0	0	31,897
9	321	Pumping Plant Structures & Improvements	366,670	(83,072)	0	283,598
10	325	Electric Pumping Equipment	16,229,982	(588,262)	0	15,641,720
11	328	Gas Engine Equipment	20,026	0	0	20,026
12	330	Water Treatment Plant - Land	680,718	0	0	680,718
13	331	Water Treatment Structures and Improvements	1,898,025	0	0	1,898,025
14	332	Water Treatment Equipment	11,483,233	(1,525,225)	0	9,958,008
15	340	Transmission and Distribution - Land	1,653,038	0	0	1,653,038
16	341	Transmission and Distribution - Structures	1,333	0	0	1,333
17	342	Storage Tanks	4,515,209	4,340	0	4,519,549
18	343	Transmission and Distribution Mains	77,682,294	(215,706)	0	77,466,588
19	344	Fire Sprinkler Taps	2,775,607	0	0	2,775,607
20	345	Services	25,122,555	(187,301)	0	24,935,254
21	346	Meters	3,922,237	(530,000)	0	3,392,237
22	348	Hydrants	9,647,072	(20,000)	0	9,627,072
23	389	General Plant Land	8,772	0	0	8,772
24	390	General Plan Structures	513,967	0	0	513,967
25	390.1	Leasehold Improvements	582,132	(10,283)	0	571,849
26	391	Office Furniture & Equipment	2,227,891	(12,584)	0	2,215,307
27	393	Warehouse Equipment	26,750	0	0	26,750
28	394	Tools, Shops, and Garage Equipment	532,770	(12,000)	0	520,770
29	395	Laboratory Equipment	107,876	0	0	107,876
30	396	Power Operated Equipment	103,403	0	0	103,403
31	397	Communications Equipment	2,912,697	(28,195)	0	2,884,502
32	398	Miscellaneous Equipment	213,202	0	0	213,202
33						
34						
35		Gross Utility Plant in Service	$172,895,727	($3,208,287)	$0	$169,687,440
36		Less: Accumulated Depreciation	44,260,678	0	0	44,260,678
37		Net Utility Plant in Service (L29 - L30)	$128,635,049	($3,208,287)	$0	$125,426,762
38						
39		*DEDUCTIONS*				
40		Contributions in Aid of Construction (CIAC)	$29,481,326	$0	$0	$29,481,326
41		Less: Accumulated Amortization	5,181,305	0	0	5,181,305
42		Net CIAC (L32 - L33)	$24,300,021	$0	$0	$24,300,021
43		Advances in Aid of Construction (AIAC)	36,540,428	0	0	36,540,428
44		Customer Meter Deposits	422,585	0	0	422,585
45		Deferred Income Tax Credits	12,343,427	0	0	12,343,427
46		Total Deductions	$73,606,461	$0	$0	$73,606,461
47						
48		*ADDITIONS:*				
49		Unamortized Finance Charges	$0	$0	$0	$0
50		Deferred Tax Assets	0	0	0	0
51		Allowance for Working Capital	1,561,902	0	(268,698)	1,293,204
52		Net Regulatory Asset / (Liability)	4,753,804	0	0	4,753,804
53		Total Additions	$6,315,706	$0	($268,698)	$6,047,008
54						
55		**ORIGINAL COST RATE BASE**	$61,344,294	($3,208,287)	($268,698)	$57,867,309

RATE BASE ADJUSTMENT NO. 1 - POST TEST YEAR ADDITIONS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED
1	321	Pumping Plant Structures & Improvements	$366,670	($83,072)	$283,598
2	325	Electric Pumping Equipment	16,229,982	(588,262)	15,641,720
3	332	Water Treatment Equipment	11,483,233	(1,525,225)	9,958,008
4	342	Storage Tanks	4,515,209	4,340	4,519,549
5	343	Transmission and Distribution Mains	77,682,294	(215,706)	77,466,588
6	345	Services	25,122,555	(187,301)	24,935,254
7	346	Meters	3,922,237	(530,000)	3,392,237
8	348	Hydrants	9,647,072	(20,000)	9,627,072
9	390.1	Leasehold Improvements	582,132	(10,283)	571,849
10	391	Office Furniture & Equipment	2,227,891	(12,584)	2,215,307
11	394	Tools, Shops, and Garage Equipment	532,770	(12,000)	520,770
12	397	Communications Equipment	2,912,697	(28,195)	2,884,502
13			$155,224,742	($3,208,287)	$152,016,455
14					

15 Adjustments based on costs as of 11/30/15

16 Acct. No.	Project Title	Project No.	Estimated Cost	Updated Cost	Adjustment
17 321	Coolidge 9 & 10 Nitrate	5299	$100,000	$16,928	($83,072)
18 325	Coolidge 9 and 10 BPS	5164	175,000	82,530	(92,470)
19 325	Cottonwood BPS & Tank	5170	1,200,000	1,267,173	67,173
20 325	Electrical	5173	106,065	103,598	(2,467)
21 325	PV 33 Pump	5251	245,552	245,968	416
22 325	PV Well No. 19	5296	175,000	149,382	(25,618)
23 325	PV Well 27	5304	175,000	6,244	(168,756)
24 325	Stanfield BPS	5306	43,000	42,857	(143)
25 325	PV Well No. 26	5358	115,000	115,775	775
26 325	PV Well No. 27	5359	200,000	6,554	(193,446)
27 325	PV Well No. 31	5362	117,000	3,272	(113,728)
28 332	Valley Farms	5167	1,250,000	1,309,763	59,763
29 332	PV Well No. 29	5260	25,000	19,275	(5,725)
30 332	PV 32 & 33 Nitrate	5303	174,000	173,112	(888)
31 332	Coolidge 9 & 10 Strainer	5307	40,000	41,625	1,625
32 342	Coolidge Tank	5361	70,000	74,340	4,340
33 343	Hwy 84 Gate Valves	5168	110,000	115,529	5,529
34 343	Overfield Road	5169	392,000	407,891	15,891
35 343	Cottonwood & Peart	5171	517,000	551,402	34,402
36 343	PV 33 Flush Line	5301	180,000	194,840	14,840
37 343	Cameron & Morrison	5329	24,000	19,402	(4,598)
38 343	CG Mountain	5332	300,000	191,545	(108,455)
39 343	2nd St & Morrison	5344	27,000	23,685	(3,315)
40 345	SR 87 & AZ Blvd Ashpalt	5339	62,000	57,535	(4,465)
41 345	Cholla St Asphalt	5341	43,000	35,165	(7,835)
42				Subtotal	($610,226)
43					

44 Adjustments based on costs as of 11/30/15

45 Acct. No.	Project Title	Project No.	Estimated Cost	Updated Cost	Allocation	Adjustment
46 391	Server Replacement	5326	$14,000	$20,180	0.3317	$2,050
47					Subtotal	$2,050
48					Total adjustment to plant based on costs	($608,176)

RATE BASE ADJUSTMENT NO. 1 - POST TEST YEAR ADDITIONS CON'T

Not Used and Useful - Pinal Valley

Acct. No.	Project Title	Project No.	Estimated Cost	Final Cost	Adjustment
325	Blanket Projects	Blankets	$60,000	$0	($60,000)
332	Coolidge Well No. 13 ARF	4806	1,500,000	0	(1,500,000)
332	Coolidge Airport	5166	80,000	0	(80,000)
343	Blanket Projects	Blankets	170,000	0	(170,000)
345	Blanket Projects	Blankets	175,000	0	(175,000)
346	Blanket Projects	0076	120,000	0	(120,000)
346	Blanket Projects	Blankets	410,000	0	(410,000)
348	Blanket Projects	Blankets	20,000	0	(20,000)
391	Blanket Projects	Blankets	8,000	0	(8,000)
394	Blanket Projects	Blankets	12,000	0	(12,000)
				Subtotal	($2,555,000)

Not Used and Useful - Phoenix Office

Acct. No.	Project Title	Project No.	Estimated Cost	3-Factor Allocation	Adjustment
390.1	Office Signs	5325	$31,000	0.3317	($10,283)
391	Company Website	5327	20,000	0.3317	(6,634)
397	Phone System	5324	85,000	0.3317	(28,195)
				Subtotal	($45,111)

Total adjustment for not used and useful plant ($2,600,111)

REFERENCES:
Column [A]: Company Schedule B-2, page 2 and B-2 Appendix pages 1-4, 7 and 11
Column [B]: Testimony, BAB
Column [C]: Column [A] + Column [B]

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield)
Docket No. W-01445A-15-0277
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Schedule BAB-6

RATE BASE ADJUSTMENT NO. 2 - ALLOWANCE FOR WORKING CAPITAL

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED	[D] REVENUE LAG DAYS	[E] EXPENSE LAG DAYS	[F] NET LAG DAYS	[G] LEAD/LAG FACTOR	[H] WORKING CASH REQUIREMENT
1	Purchased Power	$2,071,310	$0	$2,071,310	29.50	30.87	(1.37)	(0.0038)	($7,775)
2	Payroll	3,869,443	(216,819)	3,652,624	29.50	14.00	15.50	0.0425	155,111
3	Purchased Water	715,000	0	715,000	29.50	(57.84)	87.34	0.2393	171,091
4	Chemicals	407,363	0	407,363	29.50	(18.11)	47.61	0.1304	53,136
5	Property & Liability Insurance	215,569	0	215,569	29.50	(45.27)	74.77	0.2048	44,159
6	Worker's Compensation Insurance	56,136	0	56,136	29.50	(46.50)	76.00	0.2082	11,689
7	Medical, Vision, Dental, LTD & Life Insurance	868,512	(16,013)	852,499	29.50	(8.92)	38.42	0.1053	89,734
8	Other O & M (Excluding Rate Case Expense)	1,999,287	(44,156)	1,955,131	29.50	(9.27)	38.77	0.1062	207,672
9	Federal Income Taxes	1,839,977	(391,190)	1,448,787	29.50	37.00	(7.50)	(0.0205)	(29,770)
10	State Income Taxes	313,163	(65,160)	248,003	29.50	37.00	(7.50)	(0.0205)	(5,096)
11	FICA Taxes	267,606	(1,958)	265,648	29.50	14.00	15.50	0.0425	11,281
12	FUTA & SUTA Taxes	3,202	0	3,202	29.50	83.10	(53.60)	(0.1468)	(470)
13	Property Taxes	1,062,879	(93,536)	969,343	29.50	212.00	(182.50)	(0.5000)	(484,671)
14	Registration, Svc. Contracts, & Misc. Fees	86,918	0	86,918	29.50	(98.83)	128.33	0.3516	30,559
15	Retirement Annuities (401K)	296,049	(12,802)	283,247	29.50	34.72	(5.22)	(0.0143)	(4,051)
16	Total Operating Expenses	$14,072,414	($841,635)	$13,230,779					$242,600
17									
18	Interest Expense			1,828,607	29.50	91.25	(61.75)	(0.17)	(309,360)
19									
20	Total	$14,072,414	($841,635)	$15,059,386					($66,760)
21									

		COMPANY AS FILED	ADJUSTMENT	STAFF ADJUSTED
22				
23				
24	Working Cash Requirement	$201,938	($268,698)	($66,760)
25	Materials and Supplies Inventory	119,556	0	119,556
26	Required Bank Balances	799,112	0	799,112
27	Prepayments & Special Deposits	441,295	0	441,295
28	Allowance for Working Capital	$1,561,901	($268,698)	$1,293,203

REFERENCES:
Column [A]: Company Schedule B-5 and B-5 Appendix page 1
Column [B]: Testimony, BAB
Column [C]: Column [A] + Column [B]
Column [D]: Company Schedule B-5 Appendix page 1
Column [E]: Company Schedule B-5 Appendix page 1
Column [F]: Column [D] + Column [E]
Column [G]: Column [F] / 365
Column [H]: Column [C] X Column [G]

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield) **Schedule BAB-7**
Docket No. W-01445A-15-0277
Test Year December 31, 2014

NOT USED

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield) **Schedule BAB-8**
Docket No. W-01445A-15-0277
Test Year December 31, 2014

NOT USED

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield) **Schedule BAB-9**
Docket No. W-01445A-15-0277
Test Year December 31, 2014

NOT USED

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield) **Schedule BAB-10**
Docket No. W-01445A-15-0277
Test Year December 31, 2014

OPERATING INCOME STATEMENT - ADJUSTED TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY ADJUSTED TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF RECOMMENDED CHANGES	[E] STAFF RECOMMENDED
1	*REVENUES:*					
2	Residential	$11,298,361	$0	$11,298,361	$2,132,497	$13,430,858
3	Commercial	5,412,782	0	5,412,782	1,021,630	6,434,412
4	Industrial	957,969	0	957,969	180,811	1,138,780
5	Private Fire Service	121,650	0	121,650	22,961	144,611
6	Other Water Revenues	216,003	0	216,003	40,769	256,772
7	Miscellaneous	461,124	0	461,124	0	461,124
8	**Total Operating Revenues**	$18,467,889	$0	$18,467,889	$3,398,668	$21,866,557
9						
10	*OPERATING EXPENSES:*					
11	Purchased Water	$1,085,544	$0	$1,085,544	$0	$1,085,544
12	Other source of supply expense	75,424	(232)	75,192	0	75,192
13	Purchased Power	2,071,310	0	2,071,310	0	2,071,310
14	Purchased Gas	878	0	878	0	878
15	Other pumping expense	892,848	(96,763)	796,085	0	796,085
16	Water Treatment Expenses	1,404,743	(27,594)	1,377,149	0	1,377,149
17	Transmission & Distribution Expenses	1,661,471	(80,570)	1,580,901	0	1,580,901
18	Customer Accounting Expenses	1,239,559	(10,113)	1,229,446	0	1,229,446
19	Customer Service & Sales Expense	2,093	0	2,093	0	2,093
20	Administrative & General Expenses	2,543,213	(92,672)	2,450,541	0	2,450,541
21	Depreciation & Amortization Expenses	3,963,576	(305,199)	3,658,377	0	3,658,377
22	Federal Income Taxes	143,745	232,155	375,900	1,072,887	1,448,787
23	State Income Taxes	24,465	39,881	64,346	183,656	248,003
24	Property Taxes	969,214	129	969,343	59,463	1,028,806
25	Other Taxes	174,445	(1,958)	172,487	0	172,487
26	**Total Operating Expenses**	$16,252,528	($342,935)	$15,909,593	$1,316,006	$17,225,599
27						
28	**Operating Income (Loss)**	$2,215,361	$342,935	$2,558,296	$2,082,662	$4,640,958

References:
Column [A]: Company Schedule C-1 Page 2 of 3
Column [B]: Schedule BAB-11
Column [C]: Column [A] + Column [B]
Column [D]: Schedules BAB-1, BAB-2 and BAB-17
Column [E]: Column [C] + Column [D]

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield)
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Schedule BAB-11

SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] NOT USED ADJ No. 1	[C] Salaries & Wages ADJ No. 2	[D] Vehicles ADJ No. 3	[E] Life Insurance ADJ No. 4	[F] Rate Case ADJ No. 5	[G] Depr. Exp. ADJ No. 6	[H] Income Tax ADJ No. 7	[I] Prop. Tax ADJ No. 8	[J] STAFF ADJUSTED
			Ref: Sch BAB-12	Ref: Sch BAB-13	Ref: Sch BAB-14a	Ref: Sch BAB-14b	Ref: Sch BAB-14c	Ref: Sch BAB-15	Ref: Sch BAB-16	Ref: Sch BAB-17	
1	*REVENUES:*										
2	Residential	$11,298,361	$0	$0	$0	$0	$0	$0	$0	$0	$11,298,361
3	Commercial	5,412,782	0	0	0	0	0	0	0	0	5,412,782
4	Industrial	957,969	0	0	0	0	0	0	0	0	957,969
5	Private Fire Service	121,650	0	0	0	0	0	0	0	0	121,650
6	Other Water Revenues	216,003	0	0	0	0	0	0	0	0	216,003
7	Miscellaneous	461,124	0	0	0	0	0	0	0	0	461,124
8	**Total Operating Revenues**	$18,467,889	$0	$0	$0	$0	$0	$0	$0	$0	$18,467,889
9											
10	*OPERATING EXPENSES:*										
11	Purchased Water	$1,085,544	$0	$0	$0	$0	$0	$0	$0	$0	$1,085,544
12	Other source of supply expense	75,424	0	(142)	(90)	0	0	0	0	0	75,192
13	Purchased Power	2,071,310	0	0	0	0	0	0	0	0	2,071,310
14	Purchased Gas	878	0	0	0	0	0	0	0	0	878
15	Other pumping expense	892,848	0	(92,050)	(4,713)	0	0	0	0	0	796,085
16	Water Treatment Expenses	1,404,743	0	(26,264)	(1,330)	0	0	0	0	0	1,377,149
17	Transmission & Distribution Expenses	1,661,471	0	(71,643)	(8,927)	0	0	0	0	0	1,580,901
18	Customer Accounting Expenses	1,239,559	0	(7,270)	(2,843)	0	0	0	0	0	1,229,446
19	Customer Service & Sales Expense	2,093	0	0	0	0	0	0	0	0	2,093
20	Administrative & General Expenses	2,543,213	0	(32,252)	(251)	(16,013)	(44,156)	0	0	0	2,450,541
21	Depreciation & Amortization Expenses	3,963,576	0	0	0	0	0	(305,199)	0	0	3,658,377
22	Federal Income Taxes	143,745	0	0	0	0	0	0	232,155	0	375,900
23	State Income Taxes	24,465	0	0	0	0	0	0	39,881	0	64,346
24	Property Taxes	969,214	0	0	0	0	0	0	0	129	969,343
25	Other Taxes	174,445	0	(1,958)	0	0	0	0	0	0	172,487
	Total Operating Expenses	$16,252,528	$0	($231,579)	($18,154)	($16,013)	($44,156)	($305,199)	$272,037	$129	$15,909,593
	Operating Income (Loss)	$2,215,361	$0	$231,579	$18,154	$16,013	$44,156	$305,199	($272,037)	($129)	$2,558,296

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield)
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Schedule BAB-12

OPERATING INCOME ADJUSTMENT NO. 1 - NOT USED

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield)
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Schedule BAB-13

OPERATING INCOME ADJUSTMENT NO. 2 - SALARIES & WAGES

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Source of Supply	$10,514	($142)	$10,372
2	Pumping	136,801	(92,050)	44,751
3	Water Treatment	47,740	(26,264)	21,476
4	Transmission & Distribution	103,167	(71,643)	31,524
5	Customer Accounting	30,062	(7,270)	22,792
6	Administrative & General	91,623	(19,450)	72,173
7	Administrative & General - 401K	31,289	(12,802)	18,487
8	Taxes Other	27,016	(1,958)	25,058
9	**Total**	**$478,212**	**($231,579)**	**$246,633**

References:
Column [A]: Company Schedule C-2 Appendix pages 12 and 13 and Workpapers
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield)
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Schedule BAB-14a

OPERATING INCOME ADJUSTMENT NO. 3 - VEHICLES

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Source of Supply	$416	($90)	$326
2	Pumping	21,679	(4,713)	16,966
3	Water Treatment	6,115	(1,330)	4,785
4	Transmission & Distribution	41,066	(8,927)	32,139
5	Customer Accounting	13,076	(2,843)	10,233
6	Administrative & General	1,155	(251)	904
	Total	$83,507	($18,154)	$65,353

References:
Column [A]: Company Schedule C-2 Appendix page 23 and Workpapers
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield) **Schedule BAB-14b**
Docket No. W-01445A-15-0277
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OPERATING INCOME ADJUSTMENT NO. 4 - LIFE INSURANCE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Administrative & General - Life Insurance	$16,013	($16,013)	$0

References:
Column [A]: Company Schedule C-2 Appendix, page 16 and Workpapers
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield)
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Schedule BAB-14c

OPERATING INCOME ADJUSTMENT NO. 5 - RATE CASE EXPENSE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Administrative & General - Rate Case Expense	$142,049	($44,156)	$97,894

	Company Proposed Service Area	Total	[a] Allocation Rate	[b] Allocated Expense	[c] Normalizaion Period	[d] Annual Expense
7	Pinal Valley	$486,274	87.64%	$426,148	3	$142,049
8	White Tank	486,274	10.46%	50,876	3	16,959
9	Ajo	486,274	1.90%	9,250	3	3,083

	Staff Recommended Service Area	Total	[a] Allocation Rate	[b] Allocated Expense	[c] Normalizaion Period	[d] Annual Expense
15	Pinal Valley	$335,117	87.64%	$293,681	3	$97,894
16	White Tank	335,117	10.46%	35,061	3	11,687
17	Ajo	335,117	1.90%	6,375	3	2,125

	Rate Case Expense Category	**Company Proposed Amount**	**Staff Recommended Amount**	**Difference**
22	Cost of Capital	$63,617	$63,617	$0
23	Legal	375,000	200,000	(175,000)
24	Public notice	8,225	8,000	(225)
25	Transcripts	6,109	4,500	(1,609)
26	Supplies	5,305	12,000	6,695
27	ACC site visits	816	1,000	184
28	Courier Service	1,954	500	(1,454)
29	Over time and temporary services	24,560	45,000	20,440
30	Hearings	689	500	(189)
31	Total	$486,274	$335,117	($151,157)

References:
Column [A]: Company Schedule C-2 Appendix page 21 and Workpapers
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]
Column [a]: Testimony BAB
Column [b]: Column [a] x Column [b]
Column [c]: Testimony BAB
Column [d]: Column [b] / Column [c]

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield)
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Schedule BAB-15

OPERATING INCOME ADJUSTMENT NO. 6 - DEPRECIATION EXPENSE

Line No.	ACCT NO.	DESCRIPTION	[A] GROSS UTILITY PLANT IN SERVICE	[B] FULLY/NON DEPRECIABLE	[C] DEPRECIABLE PLANT	[D] DEPREC. RATE	[E] EXPENSE
	Plant In Service						
1	301	Organization Costs	$216		$216	0.00%	$0
2	302	Franchise Costs	82,969		82,969	0.00%	0
3	303	Other Intangibles - 15 Years	171,081		171,081	6.67%	11,406
4	303	Other Intangibles - 20 Years	1,732,213		1,732,213	5.00%	86,611
5	310.1	Water Rights	366,071		366,071	0.00%	0
6	310.3	Other Source of Supply Land	298,575		298,575	0.00%	0
7	310.4	Wells - Other	0		0	0.00%	0
8	314	Wells	6,982,428		6,982,428	3.13%	218,550
9	320	Pumping Plant Land	31,897		31,897	0.00%	0
10	321	Pumping Plant Structures & Improvements	283,598		283,598	2.86%	8,111
11	325	Electric Pumping Equipment	15,641,720		15,641,720	5.88%	919,733
12	328	Gas Engine Equipment	20,026		20,026	4.00%	801
13	330	Water Treatment Plant - Land	680,718		680,718	0.00%	0
14	331	Water Treatment Structures and Improvements	1,898,025		1,898,025	2.50%	47,451
15	332	Water Treatment Equipment	9,958,008		9,958,008	2.86%	284,799
16	340	Transmission and Distribution - Land	1,653,038		1,653,038	0.00%	0
17	341	Transmission and Distribution - Structures	1,333		1,333	3.33%	44
18	342	Storage Tanks	4,519,549		4,519,549	2.00%	90,391
19	343	Transmission and Distribution Mains	77,466,588		77,466,588	1.79%	1,386,652
20	344	Fire Sprinkler Taps	2,775,607		2,775,607	2.00%	55,512
21	345	Services	24,935,254		24,935,254	2.38%	593,459
22	346	Meters	3,392,237		3,392,237	4.55%	154,347
23	348	Hydrants	9,627,072		9,627,072	1.82%	175,213
24	389	General Plant Land	8,772		8,772	0.00%	0
25	390	General Plan Structures	513,967		513,967	2.50%	12,849
26	390.1	Leasehold Improvements	571,849		571,849	0.00%	0
27	391	Office Furniture & Equipment	2,215,307		2,215,307	6.67%	147,761
28	393	Warehouse Equipment	26,750		26,750	5.00%	1,337
29	394	Tools, Shops, and Garage Equipment	520,770		520,770	4.00%	20,831
30	395	Laboratory Equipment	107,876		107,876	5.00%	5,394
31	396	Power Operated Equipment	103,403		103,403	6.67%	6,897
32	397	Communications Equipment	2,884,502		2,884,502	6.67%	192,396
33	398	Miscellaneous Equipment	213,202		213,202	3.33%	7,100
34							
35		Subtotal General	$169,684,622		$169,684,622		$4,427,644
36							
37		Contribution(s) in Aid of Construction (Gross)	$29,481,326				
38		Less: Non Amortizable Contribution(s)	0				
39		Fully Amortized Contribution(s)	0				
40		Amortizable Contribution(s)	$29,481,326				
41		Times: Staff Proposed Amortization Rate	2.61%				
42		**Amortization of CIAC**	$769,267				$769,267
43		Less: Amortization of Contributions					
44							
45		Staff Recommended Depreciation Expense					$3,658,377
46		Company Proposed Depreciation Expense					3,963,576
47		Increase/(Decrease) to Depreciation Expense					($305,199)

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield) **Schedule BAB-16**
Docket No. W-01445A-15-0277
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OPERATING INCOME ADJUSTMENT NO. 7 - INCOME TAX EXPENSE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Federal Income Taxes	$143,745	$232,155	$375,900
2	State Income Taxes	24,465	39,881	64,346
3				
4	Total	$168,210	$272,037	$440,247

References:
Column [A]: Company Schedule C-2 Appendix page 37
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]

Arizona Water Company - Pinal Valley (Casa Grande, Coolidge, Stanfield)
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Schedule BAB-17

OPERATING INCOME ADJUSTMENT NO. 8 - PROPERTY TAXES

LINE NO.	DESCRIPTION	[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues	$18,467,889	$18,467,889
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	$36,935,778	$36,935,778
4	Staff Recommended Revenue	18,467,889	21,866,557
5	Subtotal (Line 4 + Line 5)	$55,403,667	$58,802,335
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	$18,467,889	$19,600,778
8	Department of Revenue Multiplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	$36,935,778	$39,201,557
10	Plus: 10% of CWIP	0	0
11	Less: Net Book Value of Licensed Vehicles	0	0
12	Full Cash Value (Line 9 + Line 10 - Line 11)	$36,935,778	$39,201,557
13	Assessment Ratio	18.00%	18.00%
14	Assessment Value (Line 12 * Line 13)	$6,648,440	$7,056,280
15	Composite Property Tax Rate - Obtained from ADOR	14.58000%	14.58000%
16	Staff Test Year Adjusted Property Tax Expense (Line 14 * Line 15)	$969,343	
17	Company Proposed Property Tax	969,214	
18	Staff Test Year Adjustment (Line 16 - Line 17)	$129	
19	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		$1,028,806
20	Staff Test Year Adjusted Property Tax Expense (Line 16)		969,343
21	Increase in Property Tax Due to Increase in Revenue Requirement		$59,463
22	Increase in Property Tax Due to Increase in Revenue Requirement (Line 21)		$59,463
23	Increase in Revenue Requirement		$3,398,668
24	Increase in Property Tax Per Dollar Increase in Revenue (Line 22 / Line 23)		**1.749600%**

REFERENCES:
Line 15: Composite Tax Rate obtained from Arizona Department of Revenue
Line 17: Company Schedule C-1 Page 2
Line 21: Line 19 - Line 20

Arizona Water Company - White Tank
Docket No. W-01445A-15-0277
Test Year December 31, 2014

DIRECT TESTIMONY OF BRITON BAXTER

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Arizona Water Company - White Tank
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Schedule BAB-1

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	[A] COMPANY ORIGINAL COST	[B] STAFF ORIGINAL COST
1	Adjusted Rate Base	$5,107,754	$5,058,486
2	Adjusted Operating Income (Loss)	$113,126	$210,722
3	Current Rate of Return (L2 / L1)	2.21%	4.17%
4	Required Rate of Return	8.93%	8.02%
5	Required Operating Income (L4 * L1)	$456,122	$405,691
6	Operating Income Deficiency (L5 - L2)	$342,996	$194,969
7	Gross Revenue Conversion Factor	1.6377	1.7169
8	Required Revenue Increase (L7 * L6)	$561,725	$334,737
9	Adjusted Test Year Revenue	$2,310,991	$2,321,542
10	Proposed Annual Revenue (L8 + L9)	$2,872,716	$2,656,279
11	Required Increase in Revenue (%)	24.31%	14.42%

References:
Column [A]: Company Schedule B-1
Column [B]: Staff Schedules BAB-2, BAB-4, BAB-10, BAB-11 and David Parcell Testimony

Arizona Water Company - White Tank
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Schedule BAB-2

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	[A]	[B]	[C]
	Calculation of Gross Revenue Conversion Factor:			
1	Revenue	100.0000%		
2	Uncollectible Factor (Line 11)	0.0000%		
3	Revenues (L1 - L2)	100.0000%		
4	Combined Federal and State Tax Rate (L17) + Property Tax Factor (L22)	41.7547%		
5	Subtotal (L3 - L4)	58.2453%		
6	**Revenue Conversion Factor (L1 / L5)**	1.716876379		
	Calculation of Uncollectible Factor:			
7	Unity	100.0000%		
8	Combined Federal and State Tax Rate (L17)	40.8187%		
9	One Minus Combined Income Tax Rate (L7 - L8)	59.1813%		
10	Uncollectible Rate	0.0000%		
11	Uncollectible Factor (L9 * L10)	0		
	Calculation of Effective Tax Rate:			
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%		
13	Arizona State Income Tax Rate	5.5000%		
14	Federal Taxable Income (L12 - L13)	94.5000%		
15	Applicable Federal Income Tax Rate (L44)	37.3743%		
16	Effective Federal Income Tax Rate (L14 * L15)	35.3187%		
17	Combined Federal and State Income Tax Rate (L13 + L16)	40.8187%		
	Calculation of Effective Property Tax Factor			
18	Unity	100.0000%		
19	Combined Federal and State Tax Rate (L17)	40.8187%		
20	One Minus Combined Income Tax Rate (L18 - L19)	59.1813%		
21	Property Tax Factor (BAB-17, L24)	1.5816%		
22	Effective Property Tax Factor (L21 * L22)	0.9360%		
23	Combined Federal and State Tax and Property Tax Rate (L17 + L22)		41.7547%	
24	Required Operating Income (Schedule BAB-1, L5)	$405,691		
25	Adjusted Test Year Operating Income (Loss) (Schedule BAB-10, L28)	210,722		
26	Required Increase in Operating Income (L24 - L25)		$194,969	
27	Income Taxes on Recommended Revenue (Col. [D], L52)	$148,325		
28	Income Taxes on Test Year Revenue (Col. [B], L52)	13,851		
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		$134,474	
30	Recommended Revenue Requirement (Schedule BAB-1, L10)	$2,656,279		
31	Uncollectible Rate (L10)	0.0000%		
32	Uncollectible Expense on Recommended Revenue (L24 * L25)	$0		
33	Adjusted Test Year Uncollectible Expense	0		
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32 - L33)		$0	
35	Property Tax with Recommended Revenue (BAB-17, L19)	$115,447		
36	Property Tax on Test Year Revenue (BAB-17, L20)	110,153		
37	Increase in Property Tax Due to Increase in Revenue (BAB-17, L21)		$5,294	
38	Total Required Increase in Revenue (L26 + L30 + L34 + L37)		$334,737	

	Calculation of Income Tax:	Test Year	STAFF Recommended
39	Revenue (Schedule BAB-10, Col.[C], L8 & Sch. BAB-1, Col. [B], L10)	$2,321,542	$2,656,279
40	Operating Expenses Excluding Income Taxes	2,096,969	2,102,263
41	Synchronized Interest (L47)	159,848	159,848
42	Arizona Taxable Income (L36 - L37 - L38)	$64,725	$394,168
43	Arizona State Income Tax Rate	5.5000%	5.5000%
44	Arizona Income Tax (L39 * L40)	$3,560	$21,679
45	Federal Taxable Income (L33 - L35)	61,165	372,489
46	Federal Tax on First Income Bracket ($1 - $50,000) @ 15%	7,500	7,500
47	Federal Tax on Second Income Bracket ($50,001 - $75,000) @ 25%	2,791	6,250
48	Federal Tax on Third Income Bracket ($75,001 - $100,000) @ 34%	0	8,500
49	Federal Tax on Fourth Income Bracket ($100,001 - $335,000) @ 39%	0	91,650
50	Federal Tax on Fifth Income Bracket ($335,001 -$10,000,000) @ 34%	0	12,746
51	Total Federal Income Tax	10,291	126,646
52	Combined Federal and State Income Tax (L35 + L42)	$13,851	$148,325
53	Applicable Federal Income Tax Rate (Col. [D], L42 - Col. [B], L42] / [Col. [C], L36 - Col. [A], L36)		37.37%
	Calculation of Interest Synchronization:		
54	Rate Base (Schedule BAB-3, Col. [C], L28)	$5,058,486	
55	Weighted Average Cost of Debt	3.16%	
56	Synchronized Interest (L45 * L46)	$159,848	

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Schedule BAB-3

RATE BASE - ORIGINAL COST/FAIR VALUE

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	REF	[C] STAFF AS ADJUSTED
1	Plant in Service	$31,633,214	($72,481)	1	$31,560,733
2	Less: Accumulated Depreciation	5,425,555	0		5,425,555
3	Net Plant in Service	$26,207,659	($72,481)		$26,135,178
4					
5	*LESS:*				
6					
7	Net Contribution in Aid-of Construction (CIAC)	$3,547,721	$0		$3,547,721
8					
9	Advances in Aid of Construction (AIAC)	16,185,732	0		16,185,732
10					
11	Customer Deposits	34,152	0		34,152
12					
13	Deferred Income Tax Credits	1,473,620	0		1,473,620
14					
15	Total Deductions	$21,241,225	$0		$21,241,225
16					
17	*ADD:*				
18	Unamortized Finance Charges	$0	$0		$0
19					
20	Deferred Tax Assets	0	0		0
21					
22	Allowance for Working Capital	141,320	23,213	2	164,533
23					
24	Net Regulatory Asset / (Liability)	0	0		0
25					
26	Total Additions	$141,320	$23,213		$164,533
27					
28	**Original Cost Rate Base**	**$5,107,754**	**($49,268)**		**$5,058,486**

References:
Column [A]: Company Schedule B-1
Column [B]: Schedule BAB-4
Column [C]: Column [A] + Column [B]

Arizona Water Company - White Tank
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Schedule BAB-4

SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Post Test Year ADJ No. 1 Ref: Sch BAB-5	[C] Allowance for Working Capital ADJ No. 2 Ref: Sch BAB-6	[D] STAFF ADJUSTED
		PLANT IN SERVICE:				
1	301	Organization Costs	$26	$0	$0	$26
2	302	Franchise Costs	0	0	0	0
3	303	Other Intangibles	14,418	0	0	14,418
4	310.1	Water Rights	27,316	0	0	27,316
5	310.3	Other Source of Supply Land	71,613	0	0	71,613
6	310.4	Wells - Other	0	0	0	0
7	314	Wells	1,833,513	0	0	1,833,513
8	320	Pumping Plant Land	0	0	0	0
9	321	Pumping Plant Structures & Improvements	285,891	0	0	285,891
10	325	Electric Pumping Equipment	2,998,256	(12,000)	0	2,986,256
11	328	Gas Engine Equipment	0	0	0	0
12	330	Water Treatment Plant - Land	0	0	0	0
13	331	Water Treatment Structures and Improvements	56,895	0	0	56,895
14	332	Water Treatment Equipment	8,755,846	(342)	0	8,755,504
15	340	Transmission and Distribution - Land	93,833	0	0	93,833
16	341	Transmission and Distribution - Structures	0	0	0	0
17	342	Storage Tanks	1,186,904	(3,190)	0	1,183,714
18	343	Transmission and Distribution Mains	12,327,508	(3,292)	0	12,324,216
19	344	Fire Sprinkler Taps	76,923	0	0	76,923
20	345	Services	2,076,707	(25,000)	0	2,051,707
21	346	Meters	306,779	(38,800)	0	267,979
22	348	Hydrants	639,059	(5,000)	0	634,059
23	389	General Plant Land	0	0	0	0
24	390	General Plan Structures	38,022	0	0	38,022
25	390.1	Leasehold Improvements	63,298	(1,228)	0	62,071
26	391	Office Furniture & Equipment	256,521	(1,547)	0	254,974
27	393	Warehouse Equipment	1,759	0	0	1,759
28	394	Tools, Shops, and Garage Equipment	50,022	(1,250)	0	48,772
29	395	Laboratory Equipment	8,393	0	0	8,393
30	396	Power Operated Equipment	2,270	0	0	2,270
31	397	Communications Equipment	445,122	19,168	0	464,291
32	398	Miscellaneous Equipment	16,319	0	0	16,319
33						
34						
35		Gross Utility Plant in Service	$31,633,214	($72,481)	$0	$31,560,733
36		Less: Accumulated Depreciation	5,425,555	0	0	5,425,555
37		Net Utility Plant in Service (L29 - L30)	$26,207,659	($72,481)	$0	$26,135,178
38						
39		*DEDUCTIONS*				
40		Contributions in Aid of Construction (CIAC)	$4,006,138	$0	$0	$4,006,138
41		Less: Accumulated Amortization	458,417	0	0	458,417
42		Net CIAC (L32 - L33)	$3,547,721	$0	$0	$3,547,721
43		Advances in Aid of Construction (AIAC)	16,185,732	0	0	16,185,732
44		Customer Meter Deposits	34,152	0	0	34,152
45		Deferred Income Tax Credits	1,473,620	0	0	1,473,620
46		Total Deductions	$21,241,225	$0	$0	$21,241,225
47						
48		*ADDITIONS:*				
49		Unamortized Finance Charges	$0	$0	$0	$0
50		Deferred Tax Assets	0	0	0	0
51		Allowance for Working Capital	141,320	0	23,213	164,533
52		Net Regulatory Asset / (Liability)	0	0	0	0
53		Total Additions	$141,320	$0	$23,213	$164,533
54						
55		**ORIGINAL COST RATE BASE**	$5,107,754	($72,481)	$23,213	$5,058,486

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Schedule BAB-5

RATE BASE ADJUSTMENT NO. 1 - POST TEST YEAR ADDITIONS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED
1	325	Electric Pumping Equipment	$2,998,256	($12,000)	$2,986,256
2	332	Water Treatment Equipment	8,755,846	(342)	8,755,504
3	342	Storage Tanks	1,186,904	(3,190)	1,183,714
4	343	Transmission and Distribution Mains	12,327,508	(3,292)	12,324,216
5	345	Services	2,076,707	(25,000)	2,051,707
6	346	Meters	306,779	(38,800)	267,979
7	348	Hydrants	639,059	(5,000)	634,059
8	390.1	Leasehold Improvements	63,298	(1,228)	62,071
9	391	Office Furniture & Equipment	256,521	(1,547)	254,974
10	394	Tools, Shops, and Garage Equipment	50,022	(1,250)	48,772
11	397	Communications Equipment	445,122	19,168	464,291
12			$26,107,766	($72,481)	$29,033,542
13					
14					

Adjustments based on costs as of 11/30/15

Acct. No.	Project Title	Project No.	Estimated Cost	Final Cost	Adjustment
332	Blue Horizon Chem Injec	5309	$54,000	$53,658	($342)
342	BAE Tank	5360	20,000	16,810	(3,190)
343	Citrus & I-10	5263	52,000	53,708	1,708
397	White Tank SCADA	5032	327,000	349,534	22,534
				Subtotal	$20,710

Adjustments based on costs as of 11/30/15

Acct. No.	Project Title	Project No.	Estimated Cost	Updated Cost	Allocation	Adjustment
391	Server Replacement	5326	$14,000	$20,180	0.0396	$245
					Subtotal	$245
				Total adjustment to plant based on costs		$20,955

Not Used and Useful - White Tank

Acct. No.	Project Title	Project No.	Estimated Cost	Final Cost	Adjustment
325	Blanket Projects	Blankets	$12,000	$0	($12,000)
343	Blanket Projects	Blankets	5,000	0	(5,000)
345	Blanket Projects	Blankets	25,000	0	(25,000)
346	Blanket Projects	Blankets	38,800	0	(38,800)
348	Blanket Projects	Blankets	5,000	0	(5,000)
391	Blanket Projects	Blankets	1,000	0	(1,000)
394	Blanket Projects	Blankets	1,250	0	(1,250)
				Subtotal	($88,050)

Not Used and Useful

Acct. No.	Project Title	Project No.	Estimated Cost	3-Factor Allocation	Adjustment
390.1	Office Signs	5325	$31,000	0.0396	($1,228)
391	Company Website	5327	20,000	0.0396	(792)
397	Phone System	5324	85,000	0.0396	(3,366)
				Subtotal	($5,386)
			Total adjustment for not used and useful plant		($93,436)

REFERENCES:
Column [A]: Company Schedule B-2, page 3 and B-2 Appendix pages 5, 7 and 11
Column [B]: Testimony, BAB
Column [C]: Column [A] + Column [B]

Arizona Water Company - White Tank
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Schedule BAB-6

RATE BASE ADJUSTMENT NO. 2 - ALLOWANCE FOR WORKING CAPITAL

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED	[D] REVENUE LAG DAYS	[E] EXPENSE LAG DAYS	[F] NET LAG DAYS	[G] LEAD/LAG FACTOR	[H] WORKING CASH REQUIREMENT
1	Purchased Power	$286,661	$0	$286,661	31.50	30.87	0.63	0.0017	$495
2	Payroll	476,932	(88,820)	388,112	31.50	14.00	17.50	0.0479	18,608
3	Purchased Water	0	0	0	31.50	41.88	(10.38)	(0.0284)	0
4	Chemicals	47,058	0	47,058	31.50	(18.11)	49.61	0.1359	6,396
5	Property & Liability Insurance	25,736	0	25,736	31.50	(45.27)	76.77	0.2103	5,413
6	Worker's Compensation Insurance	4,335	0	4,335	31.50	(46.50)	78.00	0.2137	926
7	Medical, Vision, Dental, LTD & Life Insurance	67,130	(1,237)	65,893	31.50	(8.92)	40.42	0.1107	7,297
8	Other O & M (Excluding Rate Case Expense)	354,699	(5,272)	349,427	31.50	(9.27)	40.77	0.1117	39,031
9	Federal Income Taxes	153,203	(142,912)	10,291	31.50	37.00	(5.50)	(0.0151)	(155)
10	State Income Taxes	26,075	(22,515)	3,560	31.50	37.00	(5.50)	(0.0151)	(54)
11	FICA Taxes	28,684	526	29,210	31.50	14.00	17.50	0.0479	1,400
12	FUTA & SUTA Taxes	319	0	319	31.50	83.00	(51.50)	(0.1411)	(45)
13	Property Taxes	118,521	(8,368)	110,153	31.50	212.00	(180.50)	(0.4945)	(54,473)
14	Registration, Svc. Contracts, & Misc. Fees	10,342	0	10,342	31.50	(98.83)	130.33	0.3571	3,693
15	Retirement Annuities (401K)	22,863	(988)	21,875	31.50	34.72	(3.22)	(0.0088)	(193)
16	Total Operating Expenses	$1,622,558	($269,586)	$1,352,972					$28,340
17									
18	Interest Expense			159,848	31.50	91.25	(59.75)	(0.16)	(26,167)
19									
20	Total	$1,622,558	($269,586)	$1,512,820					$2,173
21									

22		COMPANY		STAFF
23		AS FILED	ADJUSTMENT	ADJUSTED
24	Working Cash Requirement	($21,040)	$23,213	$2,173
25	Materials and Supplies Inventory	14,273	0	14,273
26	Required Bank Balances	95,402	0	95,402
27	Prepayments & Special Deposits	52,684	0	52,684
28	Allowance for Working Capital	$141,319	$23,213	$164,532

REFERENCES:
Column [A]: Company Schedule B-5 and B-5 Appendix page 1
Column [B]: Testimony, BAB
Column [C]: Column [A] + Column [B]
Column [D]: Company Schedule B-5 Appendix page 1
Column [E]: Company Schedule B-5 Appendix page 1
Column [F]: Column [D] + Column [E]
Column [G]: Column [F] / 365
Column [H]: Column [C] X Column [G]

Arizona Water Company - White Tank
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Schedule BAB-7

NOT USED

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED

Arizona Water Company - White Tank
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Schedule BAB-8

NOT USED

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED

Arizona Water Company - White Tank
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Schedule BAB-9

NOT USED

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED

Arizona Water Company - White Tank
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Schedule BAB-10

OPERATING INCOME STATEMENT - ADJUSTED TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY ADJUSTED TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF RECOMMENDED CHANGES	[E] STAFF RECOMMENDED
1	*REVENUES:*					
2	Residential	$1,791,645	$10,551	$1,802,196	$264,946	$2,067,143
3	Commercial	421,627	0	421,627	61,985	483,612
4	Industrial	15,992	0	15,992	2,351	18,343
5	Private Fire Service	1,800	0	1,800	265	2,065
6	Other Water Revenues	35,306	0	35,306	5,190	40,496
7	Miscellaneous	44,621	0	44,621	0	44,621
8	**Total Operating Revenues**	$2,310,991	$10,551	$2,321,542	$334,737	$2,656,279
9						
10	*OPERATING EXPENSES:*					
11	Purchased Water	$0	$0	$0	$0	$0
12	Other source of supply expense	26,216	(9,467)	16,749	0	16,749
13	Purchased Power	286,661	0	286,661	0	286,661
14	Purchased Gas	0	0	0	0	0
15	Other pumping expense	178,709	(32,662)	146,047	0	146,047
16	Water Treatment Expenses	231,997	(31,426)	200,571	0	200,571
17	Transmission & Distribution Expenses	171,716	(11,975)	159,741	0	159,741
18	Customer Accounting Expenses	154,650	(2,088)	152,562	0	152,562
19	Customer Service & Sales Expense	2,636	0	2,636	0	2,636
20	Administrative & General Expenses	260,129	(9,017)	251,112	0	251,112
21	Depreciation & Amortization Expenses	788,523	(34,678)	753,845	0	753,845
22	Federal Income Taxes	(25,101)	35,392	10,291	116,355	126,646
23	State Income Taxes	(4,272)	7,832	3,560	18,119	21,679
24	Property Taxes	109,635	518	110,153	5,294	115,447
25	Other Taxes	16,366	526	16,892	0	16,892
26	**Total Operating Expenses**	$2,197,865	($87,045)	$2,110,820	$139,768	$2,250,589
27						
28	**Operating Income (Loss)**	$113,126	$97,596	$210,722	$194,969	$405,691
29						

References:
Column [A]: Company Schedule C-1 Page 2 of 3
Column [B]: Schedule BAB-11
Column [C]: Column [A] + Column [B]
Column [D]: Schedules BAB-1, BAB-2 and BAB-17
Column [E]: Column [C] + Column [D]

Arizona Water Company - White Tank
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Schedule BAB-11

SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Revenues ADJ No. 1	[C] Salaries & Wages ADJ No. 2	[D] Vehicles ADJ No. 3	[E] Life Insurance ADJ No. 4	[F] Rate Case ADJ No. 5	[G] Depr. Exp. ADJ No. 6	[H] Income Tax ADJ No. 7	[I] Prop. Tax ADJ No. 8	[J] STAFF ADJUSTED
			Ref: Sch BAB-12	Ref: Sch BAB-13	Ref: Sch BAB-14a	Ref: Sch BAB-14b	Ref: Sch BAB-14c	Ref: Sch BAB-15	Ref: Sch BAB-16	Ref: Sch BAB-17	
1	*REVENUES:*										
2	Residential	$1,791,645	$10,551	$0	$0	$0	$0	$0	$0	$0	$1,802,196
3	Commercial	421,627	0	0	0	0	0	0	0	0	421,627
4	Industrial	15,992	0	0	0	0	0	0	0	0	15,992
5	Private Fire Service	1,800	0	0	0	0	0	0	0	0	1,800
6	Other Water Revenues	35,306	0	0	0	0	0	0	0	0	35,306
7	Miscellaneous	44,621	0	0	0	0	0	0	0	0	44,621
8	Total Operating Revenues	$2,310,991	$10,551	$0	$0	$0	$0	$0	$0	$0	$2,321,542
9											
10	*OPERATING EXPENSES:*										
11	Purchased Water	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	Other source of supply expense	26,216	162	(9,472)	(157)	0	0	0	0	0	16,749
13	Purchased Power	286,661	0	0	0	0	0	0	0	0	286,661
14	Purchased Gas	0	0	0	0	0	0	0	0	0	0
15	Other pumping expense	178,709	3,662	(33,880)	(2,444)	0	0	0	0	0	146,047
16	Water Treatment Expenses	231,997	1,757	(32,883)	(300)	0	0	0	0	0	200,571
17	Transmission & Distribution Expenses	171,716	0	(10,194)	(1,781)	0	0	0	0	0	159,741
18	Customer Accounting Expenses	154,650	0	(889)	(1,199)	0	0	0	0	0	152,562
19	Customer Service & Sales Expense	2,636	0	0	0	0	0	0	0	0	2,636
20	Administrative & General Expenses	260,129	0	(2,490)	(18)	(1,237)	(5,272)	0	0	0	251,112
21	Depreciation & Amortization Expenses	788,523	0	0	0	0	0	(34,678)	0	0	753,845
22	Federal Income Taxes	(25,101)	0	0	0	0	0	0	35,392	0	10,291
23	State Income Taxes	(4,272)	0	0	0	0	0	0	7,832	0	3,560
24	Property Taxes	109,635	0	0	0	0	0	0	0	518	110,153
25	Other Taxes	16,366	0	526	0	0	0	0	0	0	16,892
26	**Total Operating Expenses**	$2,197,865	$5,581	($89,282)	($5,899)	($1,237)	($5,272)	($34,678)	$43,224	$518	$2,110,820
27											
28	**Operating Income (Loss)**	$113,126	$4,970	$89,282	$5,899	$1,237	$5,272	$34,678	($43,224)	($518)	$210,722

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Schedule BAB-12

OPERATING INCOME ADJUSTMENT NO. 1 - WEATHER NORMALIZATION AND DECLINING USAGE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Residential	$1,791,645	$10,551	$1,802,196
2	Other source of supply expense	178,709	162	178,871
3	Other pumping expense	178,709	3,662	182,371
4	Water Treatment Expenses	231,997	1,757	233,754

		[a]	[b]	[c]	[d]	[e]	[f]	[g]
	Class of Service	Actual Gallons Sold Per Customer	Normalized Gallons Sold Per Customer	Increase / (Decrease) [b - a]	Year-End Number of Customers	Additional Gallons To Be Sold [c x d]	Commodity Rate Revenue Per Gallon	Increase / (Decrease) in Revenue [e x f]
12	Residential 5/8 x 3/4 -inch	137,695	134,330	(3,365)	1,818	(6,116,983)	$0.0032	($19,359.93)
13	Residential 1-inch	100,505	98,049	(2,456)	476	(1,169,016)	0.0032	(3,748)
14	Residential 1.5-inch	0	0	0	0	0	0.0000	0
15	Residential 2-inch	6,200,000	6,048,498	(151,502)	1	(151,502)	0.0048	(732)
16	Residential 3-inch	0	0	0	0	0	0.0000	0
17	Residential 4-inch	0	0	0	0	0	0.0000	0
18	Residential 6-inch	0	0	0	0	0	0.0000	0
19	Residential 8-inch	0	0	0	0	0	0.0000	0
20	Residential 10-inch	0	0	0	0	0	0.0000	0
22	Total Residential	6,438,200	6,280,877	(157,323)	2,295	(7,437,501)		

	Staff's adjustment	($23,840)
	Company's adjustment	(34,391)
	Difference	$10,551

	Class of Expense	Average Cost Per Gallon Sold	Additional Gallons To Be Sold	Staff Increase / (Decrease) in Expenses	Company Increase / (Decrease) in Expenses	Difference Increase / (Decrease) in Expenses
33	Source of Supply	$0.00004	(7,437,501)	($298)	($460)	$162
34	Pumping	0.00109	(7,437,501)	(8,107)	(11,769)	3,662
35	Water Treatment	0.00054	(7,437,501)	(4,016)	(5,773)	1,757
36				($12,421)	($18,002)	$5,581

References:
Column [A]: Company Schedule C-2 Appendix page 10 and Workpapers
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]
Column [a]: Company Schedule H-2, Column B times 12 months
Column [b]: Column [a] x -2.44%
Column [c]: Column [b] - Column [a]
Column [d]: Company Schedule C-2 Appendix page 7
Column [e]: Column [c] x Column [d]
Column [f]: Company Schedule H-5
Column [g]: Column [e] x Column [f]

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Schedule BAB-13

OPERATING INCOME ADJUSTMENT NO. 2 - SALARIES & WAGES

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Source of Supply	$9,641	($9,472)	$169
2	Pumping	36,761	(33,880)	2,881
3	Water Treatment	33,262	(32,883)	379
4	Transmission & Distribution	12,547	(10,194)	2,353
5	Customer Accounting	3,686	(889)	2,797
6	Administrative & General	3,286	(1,502)	1,784
7	Administrative & General - 401K	2,416	(988)	1,428
8	Taxes Other	6,896	526	7,422
9	**Total**	$108,495	($89,282)	$19,213

References:
Column [A]: Company Schedule C-2 Appendix pages 12 and 13 and Workpapers
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]

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OPERATING INCOME ADJUSTMENT NO. 3 - VEHICLES

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Source of Supply	$316	($157)	$159
2	Pumping	4,919	(2,444)	2,475
3	Water Treatment	605	(300)	305
4	Transmission & Distribution	3,584	(1,781)	1,803
5	Customer Accounting	2,413	(1,199)	1,214
6	Administrative & General	36	(18)	18
	Total	$11,873	($5,899)	$5,974

References:
Column [A]: Company Schedule C-2 Appendix page 23 and Workpapers
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]

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Schedule BAB-14b

OPERATING INCOME ADJUSTMENT NO. 4 - LIFE INSURANCE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Administrative & General - Life Insurance	$1,237	($1,237)	$0

References:
Column [A]: Company Schedule C-2 Appendix, page 16 and Workpapers
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]

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Schedule BAB-14c

OPERATING INCOME ADJUSTMENT NO. 5 - RATE CASE EXPENSE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Administrative & General - Rate Case Expense	$16,959	($5,272)	$11,687

	Company Proposed Service Area	Total	[a] Allocation Rate	[b] Allocated Expense	[c] Normalizaion Period	[d] Annual Expense
7	Pinal Valley	$486,274	87.64%	$426,148	3	$142,049
8	White Tank	486,274	10.46%	50,876	3	16,959
9	Ajo	486,274	1.90%	9,250	3	3,083

	Staff Recommended Service Area	Total	[a] Allocation Rate	[b] Allocated Expense	[c] Normalizaion Period	[d] Annual Expense
15	Pinal Valley	$335,117	87.64%	$293,681	3	$97,894
16	White Tank	335,117	10.46%	35,061	3	11,687
17	Ajo	335,117	1.90%	6,375	3	2,125

	Rate Case Expense Category	**Company Proposed Amount**	**Staff Recommended Amount**	**Difference**
22	Cost of Capital	$63,617	$63,617	$0
23	Legal	375,000	200,000	(175,000)
24	Public notice	8,225	8,000	(225)
25	Transcripts	6,109	4,500	(1,609)
26	Supplies	5,305	12,000	6,695
27	ACC site visits	816	1,000	184
28	Courier Service	1,954	500	(1,454)
29	Over time and temporary services	24,560	45,000	20,440
30	Hearings	689	500	(189)
31	Total	$486,274	$335,117	($151,157)

References:
Column [A]: Company Schedule C-2 Appendix page 21 and Workpapers
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]
Column [a]: Testimony BAB
Column [b]: Column [a] x Column [b]
Column [c]: Testimony BAB
Column [d]: Column [b] / Column [c]

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Schedule BAB-15

OPERATING INCOME ADJUSTMENT NO. 6 - DEPRECIATION EXPENSE

Line No.	ACCT NO.	DESCRIPTION	[A] GROSS UTILITY PLANT IN SERVICE	[B] FULLY/NON DEPRECIABLE	[C] DEPRECIABLE PLANT	[D] DEPREC. RATE	[E] EXPENSE
		Plant In Service					
1	301	Organization Costs	$26		$26	0.00%	$0
2	302	Franchise Costs	0		0	0.00%	0
3	303	Other Intangibles	14,418		14,418	0.00%	0
4	310.1	Water Rights	27,316		27,316	0.00%	0
5	310.3	Other Source of Supply Land	71,613		71,613	0.00%	0
6	310.4	Wells - Other	0		0	0.00%	0
7	314	Wells	1,833,513		1,833,513	3.13%	57,389
8	320	Pumping Plant Land	0		0	0.00%	0
9	321	Pumping Plant Structures & Improvements	285,891		285,891	2.86%	8,176
10	325	Electric Pumping Equipment	2,986,256		2,986,256	5.88%	175,592
11	328	Gas Engine Equipment	0		0	4.00%	0
12	330	Water Treatment Plant - Land	0		0	0.00%	0
13	331	Water Treatment Structures and Improvements	56,895		56,895	2.50%	1,422
14	332	Water Treatment Equipment	8,755,504		8,755,504	2.86%	250,407
15	340	Transmission and Distribution - Land	93,833		93,833	0.00%	0
16	341	Transmission and Distribution - Structures	0		0	3.33%	0
17	342	Storage Tanks	1,183,714		1,183,714	2.00%	23,674
18	343	Transmission and Distribution Mains	12,324,216		12,324,216	1.79%	220,603
19	344	Fire Sprinkler Taps	76,923		76,923	2.00%	1,538
20	345	Services	2,051,707		2,051,707	2.38%	48,831
21	346	Meters	267,979		267,979	4.55%	12,193
22	348	Hydrants	634,059		634,059	1.82%	11,540
23	389	General Plant Land	0		0	0.00%	0
24	390	General Plan Structures	38,022		38,022	2.50%	951
25	390.1	Leasehold Improvements	62,071		62,071	0.00%	0
26	391	Office Furniture & Equipment	254,974		254,974	6.67%	17,007
27	393	Warehouse Equipment	1,759		1,759	5.00%	88
28	394	Tools, Shops, and Garage Equipment	48,772		48,772	4.00%	1,951
29	395	Laboratory Equipment	8,393		8,393	5.00%	420
30	396	Power Operated Equipment	2,270		2,270	6.67%	151
31	397	Communications Equipment	464,291		464,291	6.67%	30,968
32	398	Miscellaneous Equipment	16,319		16,319	3.33%	543
33							
34		Subtotal General	$31,560,733		$31,560,733		$863,446
35							
36		Contribution(s) in Aid of Construction (Gross)	$4,006,138				
37		Less: Non Amortizable Contribution(s)	0				
38		Fully Amortized Contribution(s)	0				
39		Amortizable Contribution(s)	$4,006,138				
40		Times: Staff Proposed Amortization Rate	2.74%				
41		**Amortization of CIAC**	$109,601				$109,601
42		Less: Amortization of Contributions					
43							
44		Staff Recommended Depreciation Expense					$753,845
45		Company Proposed Depreciation Expense					788,523
46		Increase/(Decrease) to Depreciation Expense					($34,678)

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Schedule BAB-16

OPERATING INCOME ADJUSTMENT NO. 7 - INCOME TAX EXPENSE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Federal Income Taxes	($25,101)	$35,392	$10,291
2	State Income Taxes	(4,272)	7,832	3,560
3				
4	Total	($29,373)	$43,224	$13,851

References:
Column [A]: Company Schedule C-2 Appendix page 37
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]

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Schedule BAB-17

OPERATING INCOME ADJUSTMENT NO. 8 - PROPERTY TAXES

LINE NO.	DESCRIPTION	[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues	$2,321,542	$2,321,542
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	$4,643,085	$4,643,085
4	Staff Recommended Revenue	2,321,542	2,656,279
5	Subtotal (Line 4 + Line 5)	$6,964,627	$7,299,364
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	$2,321,542	$2,433,121
8	Department of Revenue Multiplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	$4,643,085	$4,866,243
10	Plus: 10% of CWIP	0	0
11	Less: Net Book Value of Licensed Vehicles	0	0
12	Full Cash Value (Line 9 + Line 10 - Line 11)	$4,643,085	$4,866,243
13	Assessment Ratio	18.00%	18.00%
14	Assessment Value (Line 12 * Line 13)	$835,755	$875,924
15	Composite Property Tax Rate - Obtained from ADOR	13.18000%	13.18000%
16	Staff Test Year Adjusted Property Tax Expense (Line 14 * Line 15)	$110,153	
17	Company Proposed Property Tax	109,635	
18	Staff Test Year Adjustment (Line 16 - Line 17)	$518	
19	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		$115,447
20	Staff Test Year Adjusted Property Tax Expense (Line 16)		110,153
21	Increase in Property Tax Due to Increase in Revenue Requirement		$5,294
22	Increase in Property Tax Due to Increase in Revenue Requirement (Line 21)		$5,294
23	Increase in Revenue Requirement		$334,737
24	Increase in Property Tax Per Dollar Increase in Revenue (Line 22 / Line 23)		**1.581600%**

REFERENCES:
Line 15: Composite Tax Rate obtained from Arizona Department of Revenue
Line 17: Company Schedule C-1 Page 2
Line 21: Line 19 - Line 20

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DIRECT TESTIMONY OF BRITON BAXTER

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Schedule BAB-1

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	[A] COMPANY ORIGINAL COST	[B] STAFF ORIGINAL COST
1	Adjusted Rate Base	$965,736	$948,972
2	Adjusted Operating Income (Loss)	$28,644	$32,684
3	Current Rate of Return (L2 / L1)	2.97%	3.44%
4	Required Rate of Return	8.93%	8.02%
5	Required Operating Income (L4 * L1)	$86,240	$76,108
6	Operating Income Deficiency (L5 - L2)	$57,596	$43,424
7	Gross Revenue Conversion Factor	1.6369	1.2783
8	Required Revenue Increase (L7 * L6)	$94,279	$55,510
9	Adjusted Test Year Revenue	$437,888	$440,253
10	Proposed Annual Revenue (L8 + L9)	$532,167	$495,763
11	Required Increase in Revenue (%)	21.53%	12.61%

References:
Column [A]: Company Schedule B-1
Column [B]: Staff Schedules BAB-2, BAB-4, BAB-10, BAB-11 and David Parcell Testimony

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Schedule BAB-2

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	[A]	[B]	[C]
	Calculation of Gross Revenue Conversion Factor:			
1	Revenue	100.0000%		
2	Uncollectible Factor (Line 11)	0.0000%		
3	Revenues (L1 - L2)	100.0000%		
4	Combined Federal and State Tax Rate (L17) + Property Tax Factor (L22)	21.7725%		
5	Subtotal (L3 - L4)	78.2275%		
6	**Revenue Conversion Factor (L1 / L5)**	1.2783		
	Calculation of Uncollectible Factor:			
7	Unity	100.0000%		
8	Combined Federal and State Tax Rate (L17)	20.5580%		
9	One Minus Combined Income Tax Rate (L7 - L8)	79.4420%		
10	Uncollectible Rate	0.0000%		
11	Uncollectible Factor (L9 * L10)	0		
	Calculation of Effective Tax Rate:			
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%		
13	Arizona State Income Tax Rate	5.5000%		
14	Federal Taxable Income (L12 - L13)	94.5000%		
15	Applicable Federal Income Tax Rate (L44)	15.9344%		
16	Effective Federal Income Tax Rate (L14 * L15)	15.0580%		
17	Combined Federal and State Income Tax Rate (L13 + L16)	20.5580%		
	Calculation of Effective Property Tax Factor			
18	Unity	100.0000%		
19	Combined Federal and State Tax Rate (L17)	20.5580%		
20	One Minus Combined Income Tax Rate (L18 - L19)	79.4420%		
21	Property Tax Factor (BAB-17, L24)	1.5288%		
22	Effective Property Tax Factor (L21 * L22)	1.2145%		
23	Combined Federal and State Tax and Property Tax Rate (L17 + L22)		21.7725%	
24	Required Operating Income (Schedule BAB-1, L5)	$76,108		
25	Adjusted Test Year Operating Income (Loss) (Schedule BAB-10, L28)	32,684		
26	Required Increase in Operating Income (L24 - L25)		$43,424	
27	Income Taxes on Recommended Revenue (Col. [D], L52)	$11,898		
28	Income Taxes on Test Year Revenue (Col. [B], L52)	660		
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		$11,237	
30	Recommended Revenue Requirement (Schedule BAB-1, L10)	$495,763		
31	Uncollectible Rate (L10)	0.0000%		
32	Uncollectible Expense on Recommended Revenue (L24 * L25)	$0		
33	Adjusted Test Year Uncollectible Expense	0		
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32 - L33)		$0	
35	Property Tax with Recommended Revenue (BAB-17, L19)	$21,040		
36	Property Tax on Test Year Revenue (BAB-17, L20)	20,192		
37	Increase in Property Tax Due to Increase in Revenue (BAB-17, L21)		$849	
38	Total Required Increase in Revenue (L26 + L30 + L34 + L37)		$55,510	

	Calculation of Income Tax:	Test Year	STAFF Recommended
39	Revenue (Schedule BAB-10, Col.[C], L8 & Sch. BAB-1, Col. [B], L10)	$440,253	$495,763
40	Operating Expenses Excluding Income Taxes	406,909	407,758
41	Synchronized Interest (L47)	29,988	29,988
42	Arizona Taxable Income (L36 - L37 - L38)	$3,357	$58,018
43	Arizona State Income Tax Rate	5.5000%	5.5000%
44	Arizona Income Tax (L39 * L40)	$185	$3,191
45	Federal Taxable Income (L33 - L35)	3,172	54,827
46	Federal Tax on First Income Bracket ($1 - $50,000) @ 15%	476	7,500
47	Federal Tax on Second Income Bracket ($50,001 - $75,000) @ 25%	0	1,207
48	Federal Tax on Third Income Bracket ($75,001 - $100,000) @ 34%	0	0
49	Federal Tax on Fourth Income Bracket ($100,001 - $335,000) @ 39%	0	0
50	Federal Tax on Fifth Income Bracket ($335,001 -$10,000,000) @ 34%	0	0
51	Total Federal Income Tax	476	8,707
52	Combined Federal and State Income Tax (L35 + L42)	$660	$11,898
53	Applicable Federal Income Tax Rate (Col. [D], L42 - Col. [B], L42] / [Col. [C], L36 - Col. [A], L36)		0.159344198
	Calculation of Interest Synchronization:		
54	Rate Base (Schedule BAB-3, Col. [C], L28)	$948,972	
55	Weighted Average Cost of Debt	3.16%	
56	Synchronized Interest (L45 * L46)	$29,988	

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Schedule BAB-3

RATE BASE - ORIGINAL COST/FAIR VALUE

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	REF	[C] STAFF AS ADJUSTED
1	Plant in Service	$2,574,666	($12,585)	1	$2,562,081
2	Less: Accumulated Depreciation	1,186,266	0		1,186,266
3	Net Plant in Service	$1,388,400	($12,585)		$1,375,815
4					
5	*LESS:*				
6					
7	Net Contribution in Aid-of Construction (CIAC)	$139,155	$0		$139,155
8					
9	Advances in Aid of Construction (AIAC)	35,084	0		35,084
10					
11	Customer Deposits	9,501	0		9,501
12					
13	Deferred Income Tax Credits	267,931	0		267,931
14					
15	Total Deductions	$451,671	$0		$451,671
16					
17	*ADD:*				
18	Unamortized Finance Charges	$0	$0		$0
19					
20	Deferred Tax Assets	0	0		0
21					
22	Allowance for Working Capital	29,007	(4,179)	2	24,828
23					
24	Net Regulatory Asset / (Liability)	0	0		0
25					
26	Total Additions	$29,007	($4,179)		$24,828
27					
28	**Original Cost Rate Base**	**$965,736**	**($16,764)**		**$948,972**

References:
Column [A]: Company Schedule B-1
Column [B]: Schedule BAB-4
Column [C]: Column [A] + Column [B]

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Schedule BAB-4

SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Post Test Year ADJ No. 1 Ref: Sch BAB-5	[C] Allowance for Working Capital ADJ No. 2 Ref: Sch BAB-6	[D] STAFF ADJUSTED
	PLANT IN SERVICE:					
1	301	Organization Costs	$5	$0	$0	$5
2	302	Franchise Costs	0	0	0	0
3	303	Other Intangibles	4,573	0	0	4,573
4	310.1	Water Rights	10,434	0	0	10,434
5	310.3	Other Source of Supply Land	1	0	0	1
6	310.4	Wells - Other	0	0	0	0
7	314	Wells	802	0	0	802
8	320	Pumping Plant Land	3,208	0	0	3,208
9	321	Pumping Plant Structures & Improvements	10,946	0	0	10,946
10	325	Electric Pumping Equipment	89,314	0	0	89,314
11	328	Gas Engine Equipment	0	0	0	0
12	330	Water Treatment Plant - Land	0	0	0	0
13	331	Water Treatment Structures and Improvements	0	0	0	0
14	332	Water Treatment Equipment	4,305	0	0	4,305
15	340	Transmission and Distribution - Land	6,065	0	0	6,065
16	341	Transmission and Distribution - Structures	0	0	0	0
17	342	Storage Tanks	160,595	0	0	160,595
18	343	Transmission and Distribution Mains	1,390,331	(2,000)	0	1,388,331
19	344	Fire Sprinkler Taps	31,151	0	0	31,151
20	345	Services	327,085	(5,000)	0	322,085
21	346	Meters	60,860	(4,200)	0	56,660
22	348	Hydrants	81,826	0	0	81,826
23	389	General Plant Land	0	0	0	0
24	390	General Plan Structures	47,207	0	0	47,207
25	390.1	Leasehold Improvements	11,509	(223)	0	11,286
26	391	Office Furniture & Equipment	57,781	(300)	0	57,482
27	393	Warehouse Equipment	275	0	0	275
28	394	Tools, Shops, and Garage Equipment	12,537	(250)	0	12,287
29	395	Laboratory Equipment	35,643	0	0	35,643
30	396	Power Operated Equipment	3,244	0	0	3,244
31	397	Communications Equipment	224,009	(612)	0	223,397
32	398	Miscellaneous Equipment	959	0	0	959
33						
34						
35		Gross Utility Plant in Service	$2,574,666	($12,585)	$0	$2,562,081
36		Less: Accumulated Depreciation	1,186,266	0	0	1,186,266
37		Net Utility Plant in Service (L29 - L30)	$1,388,400	($12,585)	$0	$1,375,815
38						
39		*DEDUCTIONS*				
40		Contributions in Aid of Construction (CIAC)	$167,252	$0	$0	$167,252
41		Less: Accumulated Amortization	28,097	0	0	28,097
42		Net CIAC (L32 - L33)	$139,155	$0	$0	$139,155
43		Advances in Aid of Construction (AIAC)	35,084	0	0	35,084
44		Customer Meter Deposits	9,501	0	0	9,501
45		Deferred Income Tax Credits	267,931	0	0	267,931
46		Total Deductions	$451,671	$0	$0	$451,671
47						
48		*ADDITIONS:*				
49		Unamortized Finance Charges	$0	$0	$0	$0
50		Deferred Tax Assets	0	0	0	0
51		Allowance for Working Capital	29,007	0	(4,179)	24,828
52		Net Regulatory Asset / (Liability)	0	0	0	0
53		Total Additions	$29,007	$0	($4,179)	$24,828
54						
55		**ORIGINAL COST RATE BASE**	$965,736	($12,585)	($4,179)	$948,972

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Schedule BAB-5

RATE BASE ADJUSTMENT NO. 1 - POST TEST YEAR ADDITIONS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED
1	343	Transmission and Distribution Mains	$1,390,331	($2,000)	$1,388,331
2	345	Services	327,085	(5,000)	322,085
3	346	Meters	60,860	(4,200)	56,660
4	390.1	Leasehold Improvements	11,509	(223)	11,286
5	391	Office Furniture & Equipment	57,781	(300)	57,482
6	394	Tools, Shops, and Garage Equipment	12,537	(250)	12,287
7	397	Communications Equipment	224,009	(612)	223,397
8			$2,084,112	($12,585)	$2,071,527
9					
10					

Adjustments based on costs as of 11/30/15

Acct. No.	Project Title	Project No.	Estimated Cost	Updated Cost	3-Factor	Adjustment
391	Server Replacement	5326	$14,000	$20,180	0.0072	$44
				Total adjustment to plant based on costs		$44

Not Used and Useful - Ajo

Acct. No.	Project Title	Project No.	Estimated Cost	Final Cost	Adjustment
343	Blanket Projects	Blankets	$2,000	$0	($2,000)
345	Blanket Projects	Blankets	5,000	0	(5,000)
346	Blanket Projects	Blankets	4,200	0	(4,200)
391	Blanket Projects	Blankets	200	0	(200)
394	Blanket Projects	Blankets	250	0	(250)
				Total adjustment	($11,650)

Not Used and Useful - Phoenix Office

Acct. No.	Project Title	Project No.	Estimated Cost	3-Factor Allocation	Adjustment
390.1	Office Signs	5325	$31,000	0.0072	($223)
391	Company Website	5327	20,000	0.0072	(144)
397	Phone System	5324	85,000	0.0072	(612)
				Total adjustment	($979)
			Total adjustment for not used and useful plant		($12,629)

REFERENCES:
Column [A]: Company Schedule B-2, page 4 and B-2 Appendix pages 6-7 and 11
Column [B]: Testimony, BAB
Column [C]: Column [A] + Column [B]

Arizona Water Company - Ajo
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Schedule BAB-6

RATE BASE ADJUSTMENT NO. 2 - ALLOWANCE FOR WORKING CAPITAL

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED	[D] REVENUE LAG DAYS	[E] EXPENSE LAG DAYS	[F] NET LAG DAYS	[G'] LEAD/LAG FACTOR	[H] WORKING CASH REQUIREMENT
1	Purchased Power	$4,903	$0	$4,903	28.91	30.87	(1.96)	(0.0054)	($26)
2	Payroll	118,010	(1,696)	116,314	28.91	14.00	14.91	0.0408	4,751
3	Purchased Water	117,312	0	117,312	28.91	35.95	(7.04)	(0.0193)	(2,263)
4	Chemicals	502	0	502	28.91	(18.11)	47.02	0.1288	65
5	Property & Liability Insurance	4,679	0	4,679	28.91	(45.27)	74.18	0.2032	951
6	Worker's Compensation Insurance	1,568	0	1,568	28.91	(46.50)	75.41	0.2066	324
7	Medical, Vision, Dental, LTD & Life Insurance	24,173	(447)	23,726	28.91	(8.92)	37.83	0.1036	2,459
8	Other O & M (Excluding Rate Case Expense)	36,170	(958)	35,212	28.91	(9.27)	38.18	0.1046	3,683
9	Federal Income Taxes	28,967	(20,260)	8,707	28.91	37.00	(8.09)	(0.0222)	(193)
10	State Income Taxes	4,930	(1,739)	3,191	28.91	37.00	(8.09)	(0.0222)	(71)
11	FICA Taxes	8,841	(125)	8,716	28.91	14.00	14.91	0.0408	356
12	FUTA & SUTA Taxes	99	0	99	28.91	83.10	(54.19)	(0.1485)	(15)
13	Property Taxes	21,529	(1,337)	20,192	28.91	212.00	(183.09)	(0.5016)	(10,129)
14	Registration, Svc. Contracts, & Misc. Fees	1,893	0	1,893	28.91	(98.83)	127.74	0.3500	662
15	Retirement Annuities (401K)	8,270	(358)	7,912	28.91	34.72	(5.81)	(0.0159)	(126)
16	Total Operating Expenses	$381,846	($26,921)	$354,925					$430
17									
18	Interest Expense			29,988	28.91	91.25	(62.34)	(0.17)	(5,122)
19									
20	Total	$381,846	($26,921)	$384,912					($4,692)
21									

22		COMPANY AS FILED	ADJUSTMENT	STAFF ADJUSTED
23				
24	Working Cash Requirement	($513)	($4,179)	($4,692)
25	Materials and Supplies Inventory	2,595	0	2,595
26	Required Bank Balances	17,346	0	17,346
27	Prepayments & Special Deposits	9,579	0	9,579
28	Allowance for Working Capital	$29,007	($4,179)	$24,828

REFERENCES:
Column [A]: Company Schedule B-5 and B-5 Appendix page 2
Column [B]: Testimony, BAB
Column [C]: Column [A] + Column [B]
Column [D]: Company Schedule B-5 Appendix page 2
Column [E]: Company Schedule B-5 Appendix page 2
Column [F]: Column [D] + Column [E]
Column [G]: Column [F] / 365
Column [H]: Column [C] X Column [G]

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Schedule BAB-7

NOT USED

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED

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Schedule BAB-8

NOT USED

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED

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Schedule BAB-9

NOT USED

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED

Arizona Water Company - Ajo
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Schedule BAB-10

OPERATING INCOME STATEMENT - ADJUSTED TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY ADJUSTED TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF RECOMMENDED CHANGES	[E] STAFF RECOMMENDED
1	*REVENUES:*					
2	Residential	$306,895	$2,365	$309,260	$39,360	$348,620
3	Commercial	125,128	0	125,128	15,925	141,053
4	Industrial	0	0	0	0	0
5	Private Fire Service	1,200	0	1,200	153	1,353
6	Other Water Revenues	564	0	564	72	636
7	Miscellaneous	4,101	0	4,101	0	4,101
8	**Total Operating Revenues**	$437,888	$2,365	$440,253	$55,510	$495,763
9						
10	*OPERATING EXPENSES:*					
11	Purchased Water	$117,312	$0	$117,312	$0	$117,312
12	Other source of supply expense	(3,893)	1,411	(2,482)	0	(2,482)
13	Purchased Power	4,903	0	4,903	0	4,903
14	Purchased Gas	0	0	0	0	0
15	Other pumping expense	18,038	100	18,138	0	18,138
16	Water Treatment Expenses	23,870	27	23,897	0	23,897
17	Transmission & Distribution Expenses	58,757	(422)	58,335	0	58,335
18	Customer Accounting Expenses	38,982	(321)	38,661	0	38,661
19	Customer Service & Sales Expense	46	0	46	0	46
20	Administrative & General Expenses	59,465	(2,305)	57,160	0	57,160
21	Depreciation & Amortization Expenses	66,337	(1,947)	64,390	0	64,390
22	Federal Income Taxes	(975)	1,451	476	8,231	8,707
23	State Income Taxes	(166)	351	185	3,006	3,191
24	Property Taxes	20,086	106	20,192	849	21,040
25	Other Taxes	6,482	(125)	6,357	0	6,357
26	**Total Operating Expenses**	$409,244	($1,674)	$407,570	$12,086	$419,656
27						
28	**Operating Income (Loss)**	$28,644	$4,040	$32,684	$43,424	$76,108

References:
Column [A]: Company Schedule C-1 Page 3 of 3
Column [B]: Schedule BAB-11
Column [C]: Column [A] + Column [B]
Column [D]: Schedules BAB-1, BAB-2 and BAB-17
Column [E]: Column [C] + Column [D]

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Schedule BAB-11

SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Revenues ADJ No. 1	[C] Salaries & Wages ADJ No. 2	[D] NOT USED ADJ No. 3	[E] Life Insurance ADJ No. 4	[F] Rate Case ADJ No. 5	[G] Depr. Exp. ADJ No. 6	[H] Income Tax ADJ No. 7	[I] Prop. Tax ADJ No. 8	[J] STAFF ADJUSTED
			Ref: Sch BAB-12	Ref: Sch BAB-13	Ref: Sch BAB-14a	Ref: Sch BAB-14b	Ref: Sch BAB-14c	Ref: Sch BAB-15	Ref: Sch BAB-16	Ref: Sch BAB-17	
1	*REVENUES:*										
2	Residential	$306,895	$2,365	$0	$0	$0	$0	$0	$0	$0	$309,260
3	Commercial	125,128	0	0	0	0	0	0	0	0	125,128
4	Industrial	0	0	0	0	0	0	0	0	0	0
5	Private Fire Service	1,200	0	0	0	0	0	0	0	0	1,200
6	Other Water Revenues	564	0	0	0	0	0	0	0	0	564
7	Miscellaneous	4,101	0	0	0	0	0	0	0	0	4,101
8	Total Operating Revenues	$437,888	$2,365	$0	$0	$0	$0	$0	$0	$0	$440,253
9											
10	*OPERATING EXPENSES:*										
11	Purchased Water	$117,312	$0	$0	$0	$0	$0	$0	$0	$0	$117,312
12	Other source of supply expense	(3,893)	1,416	(5)	0	0	0	0	0	0	(2,482)
13	Purchased Power	4,903	0	0	0	0	0	0	0	0	4,903
14	Purchased Gas	0	0	0	0	0	0	0	0	0	0
15	Other pumping expense	18,038	250	(150)	0	0	0	0	0	0	18,138
16	Water Treatment Expenses	23,870	283	(256)	0	0	0	0	0	0	23,897
17	Transmission & Distribution Expenses	58,757	0	(422)	0	0	0	0	0	0	58,335
18	Customer Accounting Expenses	38,982	0	(321)	0	0	0	0	0	0	38,661
19	Customer Service & Sales Expense	46	0	0	0	0	0	0	0	0	46
20	Administrative & General Expenses	59,465	0	(900)	0	(447)	(958)	0	0	0	57,160
21	Depreciation & Amortization Expenses	66,337	0	0	0	0	0	(1,947)	0	0	64,390
22	Federal Income Taxes	(975)	0	0	0	0	0	0	1,451	0	476
23	State Income Taxes	(166)	0	0	0	0	0	0	351	0	185
24	Property Taxes	20,086	0	0	0	0	0	0	0	106	20,192
25	Other Taxes	6,482	0	(125)	0	0	0	0	0	0	6,357
26	**Total Operating Expenses**	$409,244	$1,950	($2,179)	$0	($447)	($958)	($1,947)	$1,801	$106	$407,570
27											
28	**Operating Income (Loss)**	$28,644	$416	$2,179	$0	$447	$958	$1,947	($1,801)	($106)	$32,684

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Schedule BAB-12

OPERATING INCOME ADJUSTMENT NO. 1 - WEATHER NORMALIZATION AND DECLINING USAGE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Residential	$306,895	$2,365	$309,260
2	Other source of supply expense	(3,893)	1,416	(2,477)
3	Other pumping expense	18,038	250	18,288
4	Water Treatment Expenses	23,870	283	24,153

	[a]	[b]	[c]	[d]	[e]	[f]	[g]
Class of Service	Actual Gallons Sold Per Customer	Normalized Gallons Sold Per Customer	Increase / (Decrease) [b - a]	Year-End Number of Customers	Additional Gallons To Be Sold [c x d]	Commodity Rate Revenue Per Gallon	Increase / (Decrease) in Revenue [e x f]
Residential 5/8 x 3/4 -inch	47,558	45,768	(1,789)	563	(1,007,395)	$0.0050	($5,077)
Residential 1-inch	52,951	50,959	(1,992)	9	(17,930)	0.0062	(110)
Residential 1.5-inch	0	0	0	0	0	0.0000	0
Residential 2-inch	0	0	0	0	0	0.0000	0
Residential 3-inch	0	0	0	0	0	0.0000	0
Residential 4-inch	0	0	0	0	0	0.0000	0
Residential 6-inch	0	0	0	0	0	0.0000	0
Residential 8-inch	0	0	0	0	0	0.0000	0
Residential 10-inch	0	0	0	0	0	0.0000	0
Total Residential	100,509	96,727	(3,782)	572	(1,025,325)		

Staff's adjustment	($5,187)
Company's adjustment	(7,552)
Difference	$2,365

Class of Expense	Average Cost Per Gallon Sold	Additional Gallons To Be Sold	Staff Increase / (Decrease) in Expenses	Company Increase / (Decrease) in Expenses	Difference Increase / (Decrease) in Expenses
Source of Supply	$0.00303	(1,025,325)	($3,107)	($4,523)	$1,416
Pumping	0.00055	(1,025,325)	(564)	(814)	250
Water Treatment	0.00062	(1,025,325)	(636)	(919)	283
			($4,306)	($6,256)	$1,950

References:
Column [A]: Company Schedule C-2 Appendix page 11 and Workpapers
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]
Column [a]: Company Schedule H-2, Column B times 12 months
Column [b]: Column [a] x -2.44%
Column [c]: Column [b] - Column [a]
Column [d]: Company Schedule C-2 Appendix page 7
Column [e]: Column [c] x Column [d]
Column [f]: Company Schedule H-5
Column [g]: Column [e] x Column [f]

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Schedule BAB-13

OPERATING INCOME ADJUSTMENT NO. 2 - SALARIES & WAGES

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Source of Supply	$16	($5)	$11
2	Pumping	470	(150)	320
3	Water Treatment	800	(256)	544
4	Transmission & Distribution	1,315	(422)	893
5	Customer Accounting	1,072	(321)	751
6	Administrative & General	1,190	(542)	648
7	Administrative & General - 401K	874	(358)	516
8	Taxes Other	2,178	(125)	2,053
9	**Total**	$7,915	($2,179)	$5,736

References:
Column [A]: Company Schedule C-2 Appendix pages 12 and 13 and Workpapers
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]

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Schedule BAB-14a

OPERATING INCOME ADJUSTMENT NO. 3 - NOT USED

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED

References:
Column [A]: Company Schedule C-2 Appendix page 23 and Workpapers
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]

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Schedule BAB-14b

OPERATING INCOME ADJUSTMENT NO. 4 - LIFE INSURANCE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Administrative & General - Life Insurance	$447	($447)	$0

References:
Column [A]: Company Schedule C-2 Appendix, page 16 and Workpapers
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]

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Schedule BAB-14c

OPERATING INCOME ADJUSTMENT NO. 5 - RATE CASE EXPENSE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Administrative & General - Rate Case Expense	$3,083	($958)	$2,125

	Company Proposed Service Area	Total	[a] Allocation Rate	[b] Allocated Expense	[c] Normalizaion Period	[d] Annual Expense
7	Pinal Valley	$486,274	87.64%	$426,148	3	$142,049
8	White Tank	486,274	10.46%	50,876	3	16,959
9	Ajo	486,274	1.90%	9,250	3	3,083

	Staff Recommended Service Area	Total	[a] Allocation Rate	[b] Allocated Expense	[c] Normalizaion Period	[d] Annual Expense
15	Pinal Valley	$335,117	87.64%	$293,681	3	$97,894
16	White Tank	335,117	10.46%	35,061	3	11,687
17	Ajo	335,117	1.90%	6,375	3	2,125

	Rate Case Expense Category	**Company Proposed Amount**	**Staff Recommended Amount**	**Difference**
22	Cost of Capital	$63,617	$63,617	$0
23	Legal	375,000	200,000	(175,000)
24	Public notice	8,225	8,000	(225)
25	Transcripts	6,109	4,500	(1,609)
26	Supplies	5,305	12,000	6,695
27	ACC site visits	816	1,000	184
28	Courier Service	1,954	500	(1,454)
29	Over time and temporary services	24,560	45,000	20,440
30	Hearings	689	500	(189)
31	Total	$486,274	$335,117	($151,157)

References:
Column [A]: Company Schedule C-2 Appendix page 21 and Workpapers
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]
Column [a]: Testimony BAB
Column [b]: Column [a] x Column [b]
Column [c]: Testimony BAB
Column [d]: Column [b] / Column [c]

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Schedule BAB-15

OPERATING INCOME ADJUSTMENT NO. 6 - DEPRECIATION EXPENSE

Line No.	ACCT NO.	DESCRIPTION	[A] GROSS UTILITY PLANT IN SERVICE	[B] FULLY/NON DEPRECIABLE	[C] DEPRECIABLE PLANT	[D] DEPREC. RATE	[E] EXPENSE
		Plant In Service					
1	301	Organization Costs	$5		$5	0.00%	$0
2	302	Franchise Costs	0		0	0.00%	0
3	303	Other Intangibles	4,573		4,573	6.67%	305
4	310.1	Water Rights	10,434		10,434	0.00%	0
5	310.3	Other Source of Supply Land	1		1	0.00%	0
6	310.4	Wells - Other	0		0	0.00%	0
7	314	Wells	802		802	3.13%	25
8	320	Pumping Plant Land	3,208		3,208	0.00%	0
9	321	Pumping Plant Structures & Improvements	10,946		10,946	2.86%	313
10	325	Electric Pumping Equipment	89,314		89,314	5.88%	5,252
11	328	Gas Engine Equipment	0		0	4.00%	0
12	330	Water Treatment Plant - Land	0		0	0.00%	0
13	331	Water Treatment Structures and Improvements	0		0	2.50%	0
14	332	Water Treatment Equipment	4,305		4,305	2.86%	123
15	340	Transmission and Distribution - Land	6,065		6,065	0.00%	0
16	341	Transmission and Distribution - Structures	0		0	3.33%	0
17	342	Storage Tanks	160,595		160,595	2.00%	3,212
18	343	Transmission and Distribution Mains	1,388,331		1,388,331	1.79%	24,851
19	344	Fire Sprinkler Taps	31,151		31,151	2.00%	623
20	345	Services	322,085		322,085	2.38%	7,666
21	346	Meters	56,660		56,660	4.55%	2,578
22	348	Hydrants	81,826		81,826	1.82%	1,489
23	389	General Plant Land	0		0	0.00%	0
24	390	General Plan Structures	47,207		47,207	2.50%	1,180
25	390.1	Leasehold Improvements	11,286		11,286	0.00%	0
26	391	Office Furniture & Equipment	57,482		57,482	6.67%	3,834
27	393	Warehouse Equipment	275		275	5.00%	14
28	394	Tools, Shops, and Garage Equipment	12,287		12,287	4.00%	491
29	395	Laboratory Equipment	35,643		35,643	5.00%	1,782
30	396	Power Operated Equipment	3,244		3,244	6.67%	216
31	397	Communications Equipment	223,397		223,397	6.67%	14,901
32	398	Miscellaneous Equipment	959		959	3.33%	32
33							
34		Subtotal General	$2,562,081		$2,562,081		$68,887
35							
36		Contribution(s) in Aid of Construction (Gross)	$167,252				
37		Less: Non Amortizable Contribution(s)	0				
38		Fully Amortized Contribution(s)	0				
39		Amortizable Contribution(s)	$167,252				
40		Times: Staff Proposed Amortization Rate	2.69%				
41		**Amortization of CIAC**	$4,497				$4,497
42		Less: Amortization of Contributions					
43							
44		Staff Recommended Depreciation Expense					$64,390
45		Company Proposed Depreciation Expense					66,337
46		Increase/(Decrease) to Depreciation Expense					($1,947)

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Schedule BAB-16

OPERATING INCOME ADJUSTMENT NO. 7 - INCOME TAX EXPENSE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Federal Income Taxes	($975)	$1,451	$476
2	State Income Taxes	(166)	351	185
3				
4	Total	($1,141)	$1,801	$660

References:
Column [A]: Company Schedule C-2 Appendix page 37
Column [B]: Testimony BAB
Column [C]: Column [A] + Column [B]

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Schedule BAB-17

OPERATING INCOME ADJUSTMENT NO. 8 - PROPERTY TAXES

LINE NO.	DESCRIPTION	[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues	$440,253	$440,253
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	$880,507	$880,507
4	Staff Recommended Revenue	440,253	495,763
5	Subtotal (Line 4 + Line 5)	$1,320,760	$1,376,270
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	$440,253	$458,757
8	Department of Revenue Multiplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	$880,507	$917,513
10	Plus: 10% of CWIP	0	0
11	Less: Net Book Value of Licensed Vehicles	0	0
12	Full Cash Value (Line 9 + Line 10 - Line 11)	$880,507	$917,513
13	Assessment Ratio	18.00%	18.00%
14	Assessment Value (Line 12 * Line 13)	$158,491	$165,152
15	Composite Property Tax Rate - Obtained from ADOR	12.74000%	12.74000%
16	Staff Test Year Adjusted Property Tax Expense (Line 14 * Line 15)	$20,192	
17	Company Proposed Property Tax	20,086	
18	Staff Test Year Adjustment (Line 16 - Line 17)	$106	
19	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		$21,040
20	Staff Test Year Adjusted Property Tax Expense (Line 16)		20,192
21	Increase in Property Tax Due to Increase in Revenue Requirement		$849
22	Increase in Property Tax Due to Increase in Revenue Requirement (Line 21)		$849
23	Increase in Revenue Requirement		$55,510
24	Increase in Property Tax Per Dollar Increase in Revenue (Line 22 / Line 23)		**1.528800%**

REFERENCES:
Line 15: Composite Tax Rate obtained from Arizona Department of Revenue
Line 17: Company Schedule C-1 Page 2
Line 21: Line 19 - Line 20

ARIZONA WATER COMPANY'S RESPONSES TO
ARIZONA CORPORATION COMMISSION
STAFF'S FOURTH SET OF DATA REQUESTS TO
ARIZONA WATER COMPANY
DOCKET NO. W-01445A-15-0277
December 31, 2015

Arizona Water Company Response Number: BAB 4.1

Q. **Post-test year plant -- Please provide the updated, actual year-to-date costs for the following projects: 5032, 5076, 5164, 5165, 5167, 5168, 5169, 5170, 5171, 5173, 5251, 5296, 5299, 5301, 5303, 5304, 5324, 5332, 5358, 5359, and 5362. In addition, please identify which projects have outstanding invoices that have yet to be booked and which have been fully booked.**

A. Please see the electronic attachment \BAB 4.1 Post-Test Year Plant.xlsx\ provided on the enclosed CD.

Response provided by:	Jamie R. Moe
Title:	Manager – Rates & Regulatory Accounting
Address:	3805 North Black Canyon Highway
	Phoenix, AZ 85015

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SYSTEM	WA	DESCRIPTION	BEGINNING BALANCE	YTD 11/30/2015	BALANCE AT 11/30/2015	
41	5164	Replace Electrical Panels w/VFD Controls at Vacuum Tank Site (Ph 2 of 2)	76,055.79	6,474	82,530	Invoices Outstanding
41	5165	Construct Block Wall around Wells #21, 30 and 31	395,357.46	22,088	417,446	Invoices Outstanding
41	5167	Arsenic Removal Faciltiy at Valley Farms	272,719.36	1,037,044	1,309,763	Fully Booked
41	5168	Replace broken 16" butterfly valves w/16" gate valves on Highway 84	-	115,529	115,529	Fully Booked
41	5169	Replace 4,000' of 6" PVC with 12" DIP along Overfield	197,248.31	210,643	407,891	Fully Booked
41	5170	Rehabilitate Cottonwood Storage Tank and replace BPS	86,746.44	1,180,427	1,267,173	Fully Booked
41	5171	Replace 2,640' of failing 12" along Cottonwood from Arizola to Peart	297,889.98	253,512	551,402	Fully Booked
41	5173	Electrical Panel Safety Improvements - PV	7,761.89	95,836	103,598	Fully Booked
41	5296	Replace pump at CG Well 19	-	149,382	149,382	Invoices Outstanding
41	5299	Construct access road to Wells 9, 10 and CL Nitrate Plant	-	16,928	16,928	Invoices Outstanding
41	5301	Construct 12" DIP flush line for Well 33	-	194,840	194,840	Fully Booked
41	5303	Install nitrate analyzers at Wells 21 & 33	-	173,112	173,112	Fully Booked
41	5304	Modify pumping and add additional booster pump at Well 27 for red & rel	-	6,244	6,244	Invoices Outstanding
41	5332	Replace 60' of 36" CLC (w/DIP) on Casa Grande Mountain Peart Rd & I-8	-	191,545	191,545	Invoices Outstanding
41	5358	Replace pump and pipe at Well 26 in CG	-	115,775	115,775	Fully Booked
41	5359	Replace pump and pipe at Well 27 in CG	-	6,554	6,554	Invoices Outstanding
41	5362	Replace pump at Well #31 in Casa Grande	-	3,272	3,272	Invoices Outstanding
44	5032	Install SCADA at BAE Tank, Wells #7 & #8 and Monte Vista ARF	64,374.26	285,160	349,534	Fully Booked
300	5324	Replace obsolete Phone System	-	-	-	Invoices Outstanding
41	5076	Lower & replace 460' of 6" DIP along UPRR Spur to serve Arizona Grain in CG	125100.34	70,474	195,574	Fully Booked
41	5251	Replace pump at PV Well #33	199455.96	46,512	245,968	Fully Booked

ARIZONA WATER COMPANY'S RESPONSES TO
ARIZONA CORPORATION COMMISSION STAFF'S
FIFTH SET OF DATA REQUESTS
WESTERN GROUP RATE APPLICATION
DOCKET NO. W-01445A-15-0277
January 22, 2016

Arizona Water Company Response Number: BAB 5.1

Q. **Post-test year plant -- Please provide the updated, actual year-to-date costs for the following projects: 5260, 5263, 5306, 5307, 5309, 5325, 5326, 5327, 5329, 5339, 5341, 5344, 5345, 5348, 5360, and 5361. In addition, please identify which projects have outstanding invoices that have yet to be booked and which have been fully booked. Also provide the actual in service date for all post-test year projects.**

A. Please see the electronic attachment \BAB 5.1 Post-Test Year Plant.xlsx\ provided on the enclosed CD.

Response provided by:	Fredrick K. Schneider, P. E.
Title:	Vice President – Engineering
Address:	3805 North Black Canyon Highway Phoenix, AZ 85015

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SYSTEM	WA	DESCRIPTION	BEGINNING BALANCE	YTD 11/30/2015	BALANCE AT 11/30/2015	STATUS
041	5260	Replace sodium hypochlorite tank PV Well 29 ARF	$ 297	$ 18,979	$ 19,275	Outstanding
044	5263	Install 230' of 6" DIP along Citrus Rd, S of I-10	$ -	$ 53,708	$ 53,708	Fully Booked
041	5306	30 HP Booster Pump at ST BPS	$ -	$ 42,857	$ 42,857	Fully Booked
041	5307	Auto Strainer Wells #9 & 10 CL	$ -	$ 41,625	$ 41,625	Fully Booked
044	5309	Replace pipe at Blue Horizon ARF	$ -	$ 53,658	$ 53,658	Fully Booked
300	5325	Replace office building signs	$ -	$ -	$ -	Outstanding
300	5326	Replace patch & anti-virus servers	$ -	$ 20,180	$ 20,180	Outstanding
300	5327	Design & implement AWC website	$ -	$ 37	$ 37	Outstanding
041	5329	Replace 85' CI w/DIP on 4th St - CG	$ -	$ 19,402	$ 19,402	Fully Booked
041	5339	Replace leaking service AZ Blvd s of Verde Ln CL	$ -	$ 57,535	$ 57,535	Fully Booked
041	5341	Replace service Pinal Ave & Cholla St in CG	$ -	$ 35,165	$ 35,165	Fully Booked
041	5344	Install 25' of 8" DIP 2nd St & Morrison CL	$ -	$ 23,685	$ 23,685	Fully Booked
041	5345	Replace 13' leaking 8" CA with 8" DIP 1955 N CG Av	$ -	$ 62,000	$ 62,000	Outstanding
041	5348	Install radio system at Burgess Peak SCADA	$ -	$ 20,000	$ 20,000	Outstanding
044	5360	Replace ladder & add 12" overflow BAE water tank	$ -	$ 16,810	$ 16,810	Fully Booked
041	5361	Improvements to Coolidge Warehouse tank	$ -	$ 74,340	$ 74,340	Fully Booked

2014 Western Group Rate Case
Post-Test Year Utility Plant Projects

		Date Placed in Service
1-4806	Coolidge Well No. 13 ARF	2016
1-5076	Arizona Grain Depot	December 23, 2014
1-5164	Coolidge 9 & 10 Motors	December 8, 2015
1-5165	Block Walls Well Nos. 21, 30 & 31	January 12, 2015
1-5167	Valley Farms ARF Well No. 2	July 8, 2015
1-5168	Hwy 84 Gate & Butterfly Valves	July 20, 2015
1-5169	Overfield Road 12" Replacement	May 21, 2015
1-5170	Cottonwood Lane Storage Tank	July 23, 2015
1-5171	Cottonwood Lane 12" Replacement	April 15, 2015
1-5173	Pinal Valley Electrical Panel Safety	December 31, 2014
1-5251	PV Well No. 33 Pump & Column	January 22, 2015
1-5260	PV Well No. 29 Sodium Hypochlorite	September 28, 2015
1-5296	PV Well No. 19 Pump	September 14, 2015
1-5299	Coolidge 9 & 10 Access Road	December 14, 2015
1-5301	PV Well No. 33 12" to Hacienda Road	June 6, 2015
1-5303	PV Well Nos. 32 & 33 Nitrate Analyzers	June 5, 2015
1-5304	PV Well No. 27 Booster Pump Station	December 31, 2015
1-5307	Coolidge Well Nos. 9 & 10 Strainer	July 1, 2015
1-5329	Cameron and Morrison Replacements	February 12, 2015
1-5332	Casa Grande Mountain 36" Trans Main	May 5, 2015
1-5339	Arizola Blvd Service Line Replacement	May 21, 2015
1-5341	Pinal Avenue Service Line Replacement	June 20, 2015
1-5344	Second St Gate Valve Replacement	June 18, 2015
1-5345	1955 North Casa Grande Ave Replacement	August 4, 2015
1-5348	Burgess Peak Radio System	July 23, 2015
1-5358	PV Well No. 26 Pump	August 10, 2015
1-5359	PV Well No. 27 Pump	December 16, 2015
1-5361	Elevated Tank in Coolidge Cathodic Protection	July 8, 2015
1-5362	PV Well No. 31 Pump	November 26, 2015
1-5166	Coolidge Airport POU	February 29, 2016
1-5173	Coolidge Airport Electrical Panel Safety	December 31, 2014
1-5173	Tierra Grande Electrical Panel Safety	December 31, 2014
1-5173	Stanfield Electrical Panel Safety	December 31, 2014
1-5306	Stanfield BPS Upgrade Transformers	June 30, 2015
1-5032	White Tank SCADA System	June 1, 2015
1-5263	Citrus Road Air Relief Valve	February 3, 2015
1-5309	Blue Horizon ARF Butterfly Valves	April 21, 2015
1-5360	Beautiful Az Estates Tank	April 13, 2015
1-5324	Phone System	2016
1-5325	Office Building Signs	2016
1-5326	Anti Virus Patch	November 20, 2015
1-5327	Company Website	2016

ARIZONA WATER COMPANY'S RESPONSES TO
ARIZONA CORPORATION COMMISSION STAFF'S
SEVENTH SET OF DATA REQUESTS
WESTERN GROUP RATE APPLICATION
DOCKET NO. W-01445A-15-0277
February 16, 2016

Arizona Water Company Response Number: BAB 8.1

Q. **Post-test year plant – Please provide the following information for the "Blankets" projects for all Western Group service areas, the Phoenix office and Meter Shop and for project 0076:**

a. Updated, actual year-to-date costs including plant account information.
b. Confirm that the updated costs have been booked.
c. Work authorization information.
d. The actual in service date for all projects and a detailed description of where the item was installed.

A. a. Please see the electronic attachments in folder \BAB 8.1 Post-Test Year Plant\ on the enclosed CD.

b. Please see the electronic attachments in folder \BAB 8.1 Post-Test Year Plant\ on the enclosed CD.

c. Please see the electronic attachments in folder \BAB 8.1 Post-Test Year Plant\ on the enclosed CD.

d. Please see the electronic attachments in folder \BAB 8.1 Post-Test Year Plant\ on the enclosed CD. Because providing a detailed description of where the items were installed is unduly burdensome, such a list is not included. Blanket accounts involve numerous locations and are placed in service in the month in which the charge is recorded. The attached invoicing may provide evidence in regards to location. Invoices for all amounts over $1,000 are included with the attachments. Arizona Water Company has also used this opportunity to provide Staff with additional general ledger and invoice support for its post-test year projects.

Response provided by:	Jamie R. Moe
Title:	Manager – Rates and Regulatory Accounting
Address:	3805 North Black Canyon Highway Phoenix, AZ 85015

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ARIZONA WATER COMPANY'S RESPONSES TO ARIZONA CORPORATION COMMISSION STAFF'S SECOND SET OF DATA REQUESTS TO ARIZONA WATER COMPANY DOCKET NO. W-01445A-15-0277 October 23, 2015

Arizona Water Company Response Number: BAB 2.12

Q. Weatherization revenue adjustment – As a follow up to DR BAB 1.21 please answer/provide the following:

a. Explain the reason(s) why the Company used a five year period to establish a "normal" weather pattern.

b. A list of the other weather indices that the Company considered using in its analysis and the reason why the Palmer Drought Severity Index was chosen over any others.

c. Any Company data and/or analysis that supports that this trend is continuing post test year.

d. Can the Company state with 100 percent certainty that the proposed test year reduction in usage tied to weather will continue past the test year? If less than 100 percent, what percentage of certainty can the Company provide?

e. A list of cases with Docket numbers where the Commission has approved adjustments based on events that predated the test year, if any. Also describe those adjustments and the Company's understanding regarding the reasons that the adjustment(s) were accepted.

A. a. The decision to normalize revenues based on five years of monthly data was made prior to filing the Arizona Water Company's 2011 Test Year Northern Group general rate case. In prior rate case proceedings where Arizona Water Company utilized ten years of data, parties suggested that the continued pervasive decline in per customer sales was a result of economic conditions, with the implication being that per customer sales would eventually increase. That never happened. Despite the fact that evidence shows that past declines in per customer sales were *not* an artifact of any economic recession (*see* "Insights into Declining Single-Family Residential Water Demands." Journal – AWWA, June 2012), Arizona Water Company has continued to rely on five years of monthly data in subsequent general rate cases, with statistically significant results.

Response provided by:	Joel M. Reiker
Title:	Vice President – Rates & Revenues
Address:	3805 North Black Canyon Highway Phoenix, AZ 85015

b. In past studies, Arizona Water Company has used the independent variables of total monthly precipitation and average monthly temperature, but has found the statistical relationship between these variables and per customer sales to be inconsistent. Other published studies have found no statistically significant relationship between monthly precipitation and water sales, but have found a significant relationship between drought effects and monthly water sales. (*See* "North America Residential Water Usage Trends Since 1992." Water Research Foundation. 2010.) For these reasons Arizona Water Company has continued to use the Palmer Drought Severity Index.

c. See the pre-filed direct testimony of Joel M. Reiker, Section VIII, and Arizona Water Company's response to BAB 2.13.

d. Arizona Water Company is unable to predict future weather conditions. It is for this reason that Arizona Water Company proposes an adjustment to reflect normalized weather and usage based on five years of historical data. In terms of weather, Arizona Water Company believes a five year average is far superior to simply assuming that future weather conditions will mimic those of 2014, which the evidence shows does not represent average weather conditions.

e. Arizona Water Company has not conducted such a study or survey. However, it is routine practice for regulators, including the Commission, to weather normalize sales for ratemaking purposes and to adopt reasonable pro forma adjustments to actual test year results to the extent they represent future conditions. These adjustments commonly reflect events that predate the test year, with examples being the normalization of expenses based on historical averages, or the updating of rate base to reflect various changes that have occurred during intervening years.

Response provided by: Joel M. Reiker
Title: Vice President – Rates & Revenues
Address: 3805 North Black Canyon Highway
Phoenix, AZ 85015

ARIZONA WATER COMPANY'S RESPONSES TO
ARIZONA CORPORATION COMMISSION
STAFF'S SECOND SET OF DATA REQUESTS TO
ARIZONA WATER COMPANY
DOCKET NO. W-01445A-15-0277
October 23, 2015

Arizona Water Company Response Number: BAB 2.13

Q. <u>Declining usage revenue adjustment</u> – Please provide the available year to date (2015) customer counts and total sales by month.

A. Please see the Excel file \BAB 2.13 - Declining Usage Revenue Adjustment.xlsx\ provided on the enclosed CD.

Response provided by:	Jamie R. Moe
Title:	Manager – Rates & Regulation
Address:	3805 North Black Canyon Highway Phoenix, AZ 85015

ARIZONA WATER COMPANY
Test Year Ended December 31, 2014
Staff Data Request BAB 2.13 - Declining Usage Revenue Adjustment

	2015								
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Pinal Valley									
Customer Count									
Residential	26,370	26,359	26,412	26,448	26,484	26,519	26,619	26,597	26,596
Commercial	2,035	2,020	2,019	2,023	2,055	2,048	2,065	2,046	2,035
Industrial	24	24	24	24	24	24	24	24	23
Other	454	453	452	452	455	453	457	460	467
Total	28,883	28,856	28,907	28,947	29,018	29,044	29,165	29,127	29,121
Total Sales (M Gallons)									
Residential	189,280	178,762	176,639	218,079	243,447	240,199	298,004	277,969	260,023
Commercial	74,331	64,844	67,995	91,604	138,435	126,548	167,394	166,576	153,577
Industrial	40,758	42,337	41,451	42,399	46,484	27,531	36,843	33,587	28,900
Other	9,757	3,293	3,799	4,926	10,564	5,598	5,816	5,771	5,434
Total	314,127	289,235	289,884	357,008	438,930	399,876	508,055	483,903	447,933
White Tank									
Customer Count									
Residential	2,291	2,303	2,314	2,337	2,347	2,373	2,395	2,396	2,403
Commercial	58	56	58	58	58	59	58	58	58
Industrial	1	1	1	1	1	1	1	1	1
Other	11	11	12	13	15	17	15	15	19
Total	2,361	2,371	2,385	2,409	2,421	2,450	2,469	2,470	2,481
Total Sales (M Gallons)									
Residential	19,374	19,684	19,706	24,142	26,865	30,979	33,986	34,231	33,738
Commercial	3,828	5,061	3,770	4,865	6,135	6,358	7,495	8,561	10,063
Industrial	24	25	35	41	72	130	106	141	119
Other	42	75	26	523	153	95	32	383	247
Total	23,268	24,845	23,538	29,571	33,225	37,563	41,618	43,316	44,167
Ajo									
Customer Count									
Residential	577	584	583	592	584	587	585	581	579
Commercial	70	73	72	72	72	71	71	71	71
Industrial	-	-	-	-	-	-	-	-	-
Other	5	5	5	5	5	5	5	5	5
Total	652	662	660	669	661	663	661	657	655
Total Sales (M Gallons)									
Residential	2,383	2,125	1,899	2,512	2,127	2,726	2,624	2,844	2,164
Commercial	764	1,052	924	1,033	865	1,017	980	1,096	851
Industrial	-	-	-	-	-	-	-	-	-
Other	3	3	10	2	10	2	7	2	3
Total	3,150	3,181	2,832	3,546	3,002	3,745	3,611	3,942	3,018

ARIZONA WATER COMPANY'S RESPONSES TO ARIZONA CORPORATION COMMISSION STAFF'S FOURTH SET OF DATA REQUESTS TO ARIZONA WATER COMPANY DOCKET NO. W-01445A-15-0277 December 31, 2015

Arizona Water Company Response Number: BAB 4.5

Q. **Employee Salary and Wages – Please describe/provide the following:**

a. The process for how labor costs/overhead is calculated and included as part of any capital project.

b. A list of the employees that have been hired post-test year to fill any test-year vacancies, the positions they were hired to fill, and the date they were hired.

c. The actual annual percentage changes in pay from year to year, from the 2010 test year in the last Western Group rate case (Docket No. W-01445A-10-0517) to the current 2014 test year.

d. All test year time sheets for employee numbers 1561, 2550, 3171, 3342, and 5318 that breaks out the hours worked, the rate of pay, the account code used and for which district and/or group the work was performed.

e. If the pay is not based on time sheets, please explain how you determined the level of salary for each employee, and how their pay was allocated among the different account codes and districts/affiliates.

A. a. Employees that work on capital projects charge hours to those projects on their time sheet by writing the capital project number under the account code column and then writing the number of hours worked under the column that indicates the day that they worked on this capital project. At the end of each pay period computer operators enter each time sheet into the payroll system. The payroll system then calculates the total wages charged to a particular account code including capital projects by multiplying the employee's wage rate times the number of hours for each account code. The system also calculates any overtime or other pay adjustment. The payroll system then totals all wages by account code, including capital projects, to create a posting file. Accounting then posts this file at month-end. Payroll taxes, insurance and benefits costs are allocated to each account code charged based on the total wages charged to that account code.

b. Please see the electronic attachment \BAB 4.5 Employee Salary and Wages.xlsx\ provided on the enclosed CD.

c. Please see the electronic attachment \BAB 4.5 Employee Salary and Wages.xlsx\ provided on the enclosed CD.

d. Please see the electronic attachment \BAB 4.5 Employee Salary and Wages.xlsx\ provided on the enclosed CD. The file contains all of the information requested. Original employee time sheets are available for review at Arizona Water Company's Phoenix Office.

e. All employee pay is based on time sheets as described in the response to 4.5(a).

Response provided by: Jamie R. Moe
Title: Manager – Rates & Regulatory Accounting
Address: 3805 North Black Canyon Highway
Phoenix, AZ 85015

Data Request BAB 4.5

b. new hires

Post-test year hires

CG	MARQUEZ	MICHAEL	METER READER	06/15/15
CL	CLEMANS	TRE J	METER READER	07/27/15

Not hired to fill **test-year** vacancies

PX	MOE	JAMIE R	MANAGER - RATES & REGULATORY ACC	08/31/15	additional position
PX	STONE	VICTORIA T	SECRETARY - OPERATIONS	07/02/15	position vacant March 2015 (Sheehan term)
PX	SESMAS	GLORIA	SECRETARY - ENGINEERING	06/29/15	position vacant March 2015 (Heil promotion)
PX	ANTHONY	GARRETT R	DRAFTSMAN/MESSENGER PART-TIME	05/06/15	additional position
PX	WALSH	JAMES P	RATE ANALYST	01/05/15	additional position

c. percentage pay changes

	Non-union	Union
2014	1.3	1.2
2013	2.5	1.7
2012	2.0	1.3
2011	1.5	0.9
2010	0.0	0.0

ARIZONA WATER COMPANY'S RESPONSES TO
ARIZONA CORPORATION COMMISSION
STAFF'S FIRST SET OF DATA REQUESTS TO
ARIZONA WATER COMPANY
DOCKET NO. W-01445A-15-0277
September 25, 2015

Company Response Number: BAB 1.17

Q. NARUC Uniform System of Accounts – Please explain the reasoning behind why the Company is still using the 1976 NARUC Uniform System of Accounts rather than the more current 1996 version. In this explanation include any cost estimates, anticipated difficulties, and if the Company has a plan to transition to the more current version of the Uniform System of Accounts.

A. For over 35 years the Company has consistently maintained its accounting books and records in conformity with the 1976 NARUC USOA for Class A and B Water Utilities. Using the 1976 USOA has not created a problem for either the ACC Staff or RUCO, as evidenced by the Company's numerous rate case filings over the years.

The Arizona Corporation Commission's (ACC) rule on accounts and records states in part: "Each utility shall maintain its books and records in conformity with the NARUC Uniform System of Accounts (USOA) for Class A, B, C and D Water Utilities." *See* A.A.C. R14-2-411 D. 2. NARUC has modified and reissued its USOA for water utilities three times over the last 40 year period: 1976, 1984 and 1996. Each of these modifications in NARUC's USOA was issued with the following language:

> ***"Pursuant to action by the National Association of Regulatory Utility Commissioners, this system of Accounts is recommended to the commissions represented in the membership of this Association for consideration and for adoption in their respective jurisdictions with such modifications only as they may deem necessary in the public interest." (Emphasis added.)***

The ACC has not established any forum to consider the recommended 1984 or 1996 NARUC USOA. The ACC has never taken any action, whether by decision or rulemaking, to specifically adopt either the 1984 or 1996 NARUC USOA. Therefore, the Company has continued to use the 1976 NARUC USOA.

The Company has not evaluated the costs and difficulties of a transition to a more current version of the USOA because there are no plans to convert.

Response provided by:	Joel M. Reiker
Title:	Vice President – Rates & Revenues
Address:	3805 North Black Canyon Highway Phoenix, AZ 85015

ARIZONA WATER COMPANY'S RESPONSES TO ARIZONA CORPORATION COMMISSION STAFF'S SECOND SET OF DATA REQUESTS TO ARIZONA WATER COMPANY DOCKET NO. W-01445A-15-0277 October 23, 2015

Arizona Water Company Response Number: BAB 2.2

Q. Accumulated depreciation – Please provide a sub ledger or schedule of the accumulated depreciation by line item (e.g., 314 Wells) that was approved in the Company's prior rate case (test year ending December 31, 2010).

A. Please see the attachment \ BAB 1.8 Plant Additions & Retirements.xlsx\ provided in Arizona Water Company's Response to Staff's First Set of Data Requests. Arizona Water Company does not maintain accumulated depreciation balances by plant account.

Response provided by: Jamie R. Moe
Title: Manager – Rates & Regulation
Address: 3805 North Black Canyon Highway
Phoenix, AZ 85015

ARIZONA WATER COMPANY'S RESPONSES TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS WESTERN GROUP RATE APPLICATION DOCKET NO. W-01445A-15-0277 January 19, 2016

Company Response Number: RUCO 4.01

Q. Accumulated Depreciation – In RUCO Data Request 1.13(b) the Company was asked to provide a schedule showing the Accumulated Depreciation balances by account, as authorized in the most recent rate case. In response, the Company stated that Arizona Water "does not maintain accumulated depreciation balances by plant account." Subsequently, in RUCO Data Request 3.06 the Company was asked to provide accumulated depreciation balances by function. In response, the Company stated that Arizona Water "does not maintain accumulated depreciation balances by function" (emphasis added).

In light of the above, please indicate if the Company agrees, or disagrees, with the following statements; to the extent the Company disagrees with a particular statement, provide a detailed explanation as to the reasons for the Company's disagreement:

1. Title 14, Chapter 2, Section 102, Parts A-D of the Arizona Administrative Code is controlling as regards the treatment of depreciation by public service corporations subject to regulation by the Arizona Corporation Commission (ACC);
2. Pursuant to R14-2-102(B) of the Arizona Administrative Code, all public service corporations are required to maintain adequate accounts and records related to depreciation practices;
3. Pursuant to R14-2-102(B.2) of the Arizona Administrative Code, public service corporations are required to maintain a separate depreciation reserve (i.e., accumulated depreciation) account for depreciable plant assets, either on an individual account or functional account basis;
4. Pursuant to R14-2-102(B.4) of the Arizona Administrative Code, only those public service corporations having less than $250,000 in annual revenue are not required to maintain depreciation records by separate accounts;
5. Pursuant to R14-2-102(D) of the Arizona Administrative Code, upon a showing of good cause the ACC can grant a waiver to a public service corporation from one or more of the requirements of Section 102 (i.e., R14-2-102).

Response provided by: Jamie R. Moe
Title: Manager – Rates and Regulatory Accounting
Address: 3805 N. Black Canyon Highway
Phoenix, AZ 85015

ARIZONA WATER COMPANY'S RESPONSES TO
RESIDENTIAL UTILITY CONSUMER OFFICE'S
FOURTH SET OF DATA REQUESTS
WESTERN GROUP RATE APPLICATION
DOCKET NO. W-01445A-15-0277
January 19, 2016

Company Response Number: RUCO 4.01

A. 1. Arizona Water Company acknowledges that R14-2-102 of the Arizona Administrative Code is controlling in regards to the treatment of depreciation.

2. Arizona Water Company acknowledges that R14-2-102(B) of the Arizona Administrative Code states, "All public service corporations shall maintain adequate accounts and records related to depreciation practices."

3. Arizona Water Company acknowledges that R-14-2-102(B.2) of the Arizona Administrative Code states, "A separate reserve for each account or functional account shall be maintained."

4. Arizona Water Company acknowledges that R-14-2-102(B.4) of the Arizona Administrative Code states, "Public service corporations having less than $250,000 in annual revenue shall not be required to maintain depreciation records by separate accounts but shall make annual composite accruals to accumulated depreciation for total depreciable plant."

5. Arizona Water Company acknowledges that R-14-2-102(D) of the Arizona Administrative Code states, "Upon the motion of any party or upon its own motion, the Commission may determine that good cause exists for granting a waiver from one or more of the requirements of this Section."

Response provided by: Jamie R. Moe
Title: Manager – Rates and Regulatory Accounting
Address: 3805 N. Black Canyon Highway
Phoenix, AZ 85015

ARIZONA WATER COMPANY'S RESPONSES TO
ARIZONA CORPORATION COMMISSION
STAFF'S SECOND SET OF DATA REQUESTS TO
ARIZONA WATER COMPANY
DOCKET NO. W-01445A-15-0277
October 23, 2015

Arizona Water Company Response Number: BAB 2.3

Q. <u>Fully depreciated plant</u> – Please provide a sub ledger or schedule of the plant accounts with fully depreciated assets by line item (e.g., 314 Wells) or indicate if there is no fully depreciated plant still in service.

A. No such schedule or sub ledger exists. Arizona Water Company uses a group depreciation accounting methodology under which a property group is depreciated at a Commission-approved rate, based on the average service life of all property units/investments in the group. Under this method, the recovery of capital occurs over the life of the asset group (as opposed to each individual asset), and a unit of property is assumed to be fully depreciated only at the time it is retired and removed from service. As a result, there are no fully depreciated assets that remain in service.

Response provided by:	Joel M. Reiker
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BEFORE THE ARIZONA CORPORATION COMMISSION

DOUG LITTLE
Chairman
BOB STUMP
Commissioner
BOB BURNS
Commissioner
TOM FORESE
Commissioner
ANDY TOBIN
Commissioner

IN THE MATTER OF THE APPLICATION OF ARIZONA WATER COMPANY, INC. AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY, AND FOR ADJUSTMENTS TO ITS RATES AND CHARGES FOR UTILITY SERVICE FURNISHED BY ITS WESTERN GROUP AND FOR CERTAIN RELATED APPROVALS	DOCKET NO. W-01445A-15-0277

DIRECT

TESTIMONY

OF

DAVID C. PARCELL

ON BEHALF OF

UTILITIES DIVISION STAFF

ARIZONA CORPORATION COMMISSION

MARCH 11, 2016

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EXECUTIVE SUMMARY
ARIZONA WATER COMPANY
DOCKET NO. W-01445A-15-0277

Mr. Parcell's Direct Testimony provides an estimate of the cost of capital for Arizona Water Company's Western Group. His cost of capital recommendation is as follows:

	Percent	Cost	Return
Long-Term Debt	46.31%	6.82%	3.16%
Common Equity	53.69%	8.6-9.5%	4.62-5.10%
Total	100.00%		7.78-8.26% (8.02% Midpoint)

The only difference between Mr. Parcell's cost of capital recommendations and the recommendations of Arizona Water Company's cost of capital witness (Pauline Ahern) is the cost of common equity. Mr. Parcell recommends a cost of equity of 8.6 percent to 9.5 percent whereas Ms. Ahern recommends a 10.75 percent cost of equity.

Mr. Parcell's cost of equity recommendation is based upon his application of the following three cost of equity models:

	Range	Midpoint
Discounted Cash Flow ("DCF")	8.1-8.6%	8.35%
Capital Asset Pricing Model ("CAPM")	6.6%	6.6%
Comparable Earnings ("CE")	9.0-10.0%	9.50%

Mr. Parcell's 8.6 percent to 9.5 percent cost of equity recommendation reflects the midpoint results of his DCF and CE analyses. His recommendation does not directly incorporate the CAPM results, which are lower; however, the CAPM results are an appropriate indicator of the continuing decline in the costs of capital, including the cost of equity.

Mr. Parcell's testimony also demonstrates that Ms. Ahern's cost of equity analyses significantly over-state the cost of equity for water utilities, including Arizona Water Co. Most of her analyses are shown to systematically upward bias the cost of equity at the current time. In addition, Mr. Parcell shows that Ms. Ahern's proposed "credit" risk and business risk adjustments are not proper and should not be applied to or incorporated in the cost of equity for Arizona Water Co.

INTRODUCTION

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

A. My name is David C. Parcell. I am President and Senior Economist of Technical Associates, Inc. My business address is 1503 Santa Rosa Rd., Suite 130, Richmond, Virginia 23229.

Q. Please describe your educational background and professional experience.

A. I hold B.A. (1969) and M.A. (1970) degrees in economics from Virginia Polytechnic Institute and State University (Virginia Tech) and a M.B.A. (1985) from Virginia Commonwealth University. I have been a consulting economist with Technical Associates since 1970. I have provided cost of capital testimony in public utility ratemaking proceedings, dating back to 1972. In connection with this, I have previously filed testimony and/or testified in over 525 utility proceedings before more than 50 regulatory agencies in the United States and Canada. Attachment 1 provides a more complete description of my education and relevant work experience.

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

A. I have been retained by the Arizona Corporation Commission ("Commission") Utilities Division ("Staff") to evaluate the cost of capital aspects of the current filing of Arizona Water Company ("AWC" or "Company"). I have performed independent studies and am making recommendations of the current cost of capital for AWC. In addition, since AWC is a subsidiary of Utility Investment Company ("UIC"), I have also evaluated this entity in my analyses.

Q. Have you prepared an exhibit in support of your testimony?

A. Yes, I have prepared one exhibit, made up of fourteen schedules, identified as Schedule 1 through Schedule 14. These schedules were prepared either by me or under my direction.

SUMMARY OF TESTIMONY AND RECOMMENDATIONS

Q. What are your recommendations in this proceeding?

A. My overall cost of capital recommendation for AWC is shown on Schedule 1 and is summarized as follows:

Item	%	Cost	Weighted Cost
Long-Term Debt	46.31%	6.82%	3.16%
Common Equity	53.69%	8.6-9.5%	4.62-5.10%
Total	100.00%		7.78-8.26%
			(8.02% Midpoint)

Q. Please summarize your analyses and conclusions.

A. This proceeding is concerned with AWC's regulated water utility operations in its Western Group Service areas. My analyses concern the Company's total cost of capital ("COC"). The first step in performing these analyses is to develop the appropriate capital structure. AWC proposes use of its actual December 31, 2014 test year capital structure, which contains 53.69 percent common equity. I also use this capital structure.

The second step in a cost of capital calculation is to determine the embedded cost rate of debt. I use AWC's proposed 6.82 percent cost rate for long-term debt (i.e., test year).

The third step in the COC calculation is to estimate the return on common equity ("ROE"). I employ three recognized methodologies to estimate AWC's ROE, each of which I apply to a proxy group of water utilities. These three methodologies and my findings are:

Methodology	Range
Discounted Cash Flow ("DCF")	8.1%-8.6% (8.35% mid-point)
Capital Asset Pricing Model ("CAPM")	6.6%
Comparable Earnings ("CE")	9.0%-10.0% (9.50% mid-point)

Based upon these finding, I conclude that AWC's ROE is within a range of 8.6 percent to 9.5 percent (9.05 percent mid-point), which is based upon the range of the results for the DCF and CE models.[1] I recommend the mid-point of this range, of 9.05 percent, as the AWC's ROE.

Combining these three steps into the weighted COC results in an overall rate of return range of 7.78 percent to 8.26 percent (8.02 percent mid-point which incorporates a 9.05 percent ROE).

ECONOMIC/LEGAL PRINCIPLES AND METHODOLOGIES

Q. What are the primary economic and legal principles that establish the standards for determining a fair rate of return for a regulated utility?

A. Public utility rates are normally established in a manner designed to allow the recovery of their costs, including capital costs. This is frequently referred to as "cost of service" ratemaking. Rates for regulated public utilities traditionally have been primarily established using the "rate base – rate of return" concept. Under this method, utilities are allowed to recover a level of operating expenses, taxes, and depreciation deemed reasonable for rate-setting purposes, and are granted an opportunity to earn a fair rate of return on the assets utilized (i.e. rate base) in providing service to their customers.

The rate base is derived from the asset side of the utility's balance sheet as a dollar amount and the rate of return is developed form the liabilities/owners' equity side of the balance sheet as a percentage. Thus, the revenue impact of the cost of capital is derived by multiplying the rate base by the rate of return, including income taxes.

[1] As I indicate in a later section, my ROE recommendation does not directly incorporate the CAPM results, which I believe to be somewhat low at this time, relative to the DCF and CE results.

The rate of return is developed from the cost of capital, which is estimated by weighting the capital structure components (i.e. debt, preferred stock, and common equity) by their percentages in the capital structure and multiplying these values by their cost rates. This is also known as the weighted cost of capital.

Technically, "fair rate of return" is a legal and accounting concept that refers to an ex post (after the fact) earned return on an asset base, while the cost of capital is an economic and financial concept which refers to an ex ante (before the fact) expected, or required, return on a capital base. In regulatory proceedings, however, the two terms are often used interchangeably, and I have equated the two concepts in my testimony.

From an economic standpoint, a fair rate of return is normally interpreted to mean that an efficient and economically managed utility will be able to maintain its financial integrity, attract capital, and establish comparable returns for similar risk investments. These concepts are derived from economic and financial theory and are generally implemented using financial models and economic concepts.

Although I am not a lawyer and I do not offer a legal opinion, my testimony is based on my understanding that two United States Supreme Court decisions provide the controlling standards for a fair rate of return. The first decision is Bluefield Water Works and Improvement Co. v. Public Serv. Comm'n of West Virginia, 262 U.S. 679 (1923). In this decision, the Court stated:

> The annual rate that will constitute just compensation depends upon many circumstances and must be determined by the exercise of fair and enlightened judgment, having regard to all relevant facts. A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on

> investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility, and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time, and become too high or too low by changes affecting opportunities for investment, the money market, and business conditions generally.

It is generally understood that the Bluefield decision established the following standards for a fair rate of return: comparable earnings, financial integrity, and capital attraction. It also noted that required returns change over time, and there is an underlying assumption that the utility be operated efficiently.

The second decision is Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1942). In that decision, the Court stated:

> The rate-making process under the [Natural Gas] Act, i.e., the fixing of 'just and reasonable' rates, involves a balancing of the investor and consumer interests . . . From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. By this standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

The three economic and financial parameters in the Bluefield and Hope decisions – comparable earnings, financial integrity, and capital attraction – reflect the economic criteria encompassed in the "opportunity cost" principle of economics. The opportunity cost principle provides that a utility and its investors should be afforded an opportunity (not a guarantee) to earn a return commensurate with returns they could expect to achieve on

investments of similar risk. The opportunity cost principle is consistent with the fundamental premise on which regulation rests, namely, that it is intended to act as a surrogate for competition.

I understand that because Arizona is a "Fair Value" state, Hope and Bluefield do not set forth the legal requirements applicable to determining fair rate of return in Arizona. In Simms v. Round Valley Light & Power Company, 294 P.2d 378 (1956), the Arizona Supreme Court took exception to application of the following principle in Arizona since the Constitution mandates consideration of fair value:

> "In the Hope case the court, in testing the reasonableness of rates fixed by the Federal Power Commission under the Natural Gas Act, 15 U.S.C.A. Section 717 et seq., after holding that Congress had provided no formula by which just and reasonable rates were to be determined, ruled that it was the final result reached and not the method used in reaching the result that was controlling and that it was unimportant to 'determine the various permissible ways in which any rate base on which the return is computed might be arrived at'."

My testimony does not advocate that the Commission ignore the Simms holding in this regard, or the fair value of AWC property, which it is required to consider under Article 15, Section of the Arizona Constitution. Rather, I find the Hope and Bluefield decisions can be helpful in their discussion of comparable earnings, financial integrity and capital attraction. I note that AWC Witness Ahern also cites the Hope and Bluefield cases as guidelines for evaluating the cost of capital for the Company.

Q. Is AWC requesting a "fair value" increment to this proceeding?

A. No, it is not. It is my understanding that AWC maintains that its original cost rate base and its fair value rate base are the same for the purposes of establishing rates.

Q. How can the Bluefield and Hope parameters be employed to estimate the cost of capital for a utility?

A. Neither the courts nor economic/financial theory has developed exact and mechanical procedures for precisely determining the cost of capital. This is the case because the cost of capital is an opportunity cost and is prospective-looking, which dictates that it must be estimated. However, there are several useful models that can be employed to assist in estimating the ROE, which is the capital structure item that is the most difficult to determine. These include the DCF, CAPM, CE and risk premium ("RP") methods. I have not directly employed a RP model in my analyses although, as discussed later, my CAPM analysis is a form of the RP methodology. Each of these methodologies will be described in more detail later in my testimony.

GENERAL ECONOMIC CONDITIONS

Q. Are economic and financial conditions important in determining the costs of capital for a public utility?

A. Yes. The costs of capital, for both fixed-cost (debt and preferred stock) components and common equity, are determined in part by current and prospective economic and financial conditions. At any given time, each of the following factors has an influence on the costs of capital:

- The level of economic activity (i.e., growth rate of the economy);
- The stage of the business cycle (i.e., recession, expansion, or transition);
- The level of inflation;
- The level and trend of interest rates; and,
- Current and expected economic conditions.

My understanding is that this position is consistent with the Bluefield decision that noted "[a] rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market, and business conditions generally." Bluefield, 262 U.S. at 693.

Q. What indicators of economic and financial activity did you evaluate in your analyses?

A. I examined several sets of economic statistics from 1975 to the present. I chose this time period because it permits the evaluation of economic conditions over four full business cycles, allowing for an assessment of changes in long-term trends. Consideration of economic/financial conditions over a relatively long period of time allows me to assess how such conditions have had impacts on the level and trends of the costs of capital. This period also approximates the beginning and continuation of active rate case activities by public utilities, which generally began in the mid-1970s.

A business cycle is commonly defined as a complete period of expansion (recovery and growth) and contraction (recession). A full business cycle is a useful and convenient period over which to measure levels and trends in long-term capital costs because it incorporates the cyclical (i.e., stage of business cycle) influences and, thus, permits a comparison of structural (or long-term) trends.

Q. Please describe the timeframes of the four prior business cycles and the current cycle.

A. The four prior complete cycles and current cycle cover the following periods:

Business Cycle	Expansion Cycle	Contraction Period
1975-1982	Mar. 1975-July 1981	Aug. 1981-Oct. 1982
1982-1991	Nov. 1982-July 1990	Aug. 1990-Mar. 1991
1991-2001	Mar. 1991-Mar. 2001	Apr. 2001-Nov. 2001
2001-2009	Nov. 2001-Nov. 2007	Dec. 2007-June 2009
Current	July 2009-	

Source: National Bureau of Economic Research, "Business Cycle Expansions and Contractions.[2]

Q. Do you have any general observations concerning the recent trends in economic conditions and their impact on capital costs over this broad period?

A. Yes, I do. From the early 1980s until the end of 2007, the United States economy had enjoyed general prosperity and stability. This period had been characterized by longer economic expansions, relatively tame contractions, low and declining inflation, and declining interest rates and other capital costs.

However, in 2008 and 2009, the economy declined significantly, initially as a result of the 2007 collapse of the "sub-prime" mortgage market and the related liquidity crisis in the financial sector of the economy. Subsequently, this financial crisis intensified with a more broad-based decline which resulted in a dramatic decline in the U.S. financial sector, as well as many other components of the economy.

This decline has been described as the worst financial crisis since the Great Depression and has been referred to as the "Great Recession." Beginning in 2008, the U.S. and other governments implemented unprecedented actions to attempt to correct or minimize the scope and effects of this recession.

The recession reached its low point in mid-2009, when the economy began to expand again, although at a slow and uneven rate. However, the length and severity of the recession, as well

[2] http://www.nber.org/cycles/cyclesmain.html.

as a relatively slow and uneven recovery, indicate that the impacts of the recession have been and will be felt for an extended period of time.

Q. Please describe recent and current economic and financial conditions and their impact on the cost of capital.

A. One impact of the Great Recession has been a reduction in actual and expected investment returns and a corresponding reduction in the costs of capital. This decline is evidenced by a decline in both short-term and long-term interest rates and the expectations of investors and is reflected in ROE model results (such as DCF, CAPM and CE). Regulatory agencies throughout the U.S. have recognized the decline in capital costs by authorizing lower ROEs for regulated utilities.

Schedule 2 shows several sets of relevant economic and financial statistics for the cited time periods. Pages 1 and 2 contain general macroeconomic statistics; pages 3 and 4 show interest rates; and pages 5 and 6 contain equity market statistics.

Pages 1 and 2 show that in 2007 the economy entered a significant decline, as indicated by the growth in real (i.e., adjusted for inflation) Gross Domestic Product ("GDP"), industrial production, and an increase in the unemployment rate. This recession lasted until mid-2009, making it a longer-than-normal recession, as well as a much deeper recession. Since then, economic growth has been somewhat erratic and the economy has grown slower than the prior expansions.

Pages 1 and 2 also show the rate of inflation. As reflected in the Consumer Price Index ("CPI"), for example, inflation rose significantly during the 1975-1982 business cycle and reached double-digit levels in 1979-1980. The rate of inflation has declined substantially since

1981. Since 2008, the CPI has been 3 percent or lower, with 2013 being only 1.5 percent and 2014-2015 being below 1 percent. It is thus apparent that the rate of inflation has generally been declining over the past several business cycles. Recent and current levels of inflation are at the lowest levels of the past 35 years, which is reflective of lower capital costs.[3]

Q. What have been the trends in interest rates over the four prior business cycles and at the current time?

A. Pages 3 and 4 of Schedule 2 show several series of interest rates. Both short-term and long-term rates rose sharply to record levels in 1975-1981 when the inflation rate was high. Interest rates have declined substantially in conjunction with inflation since the early 1980's.

From 2008 to late 2015, the Federal Reserve System ("Federal Reserve") maintained the Federal Funds rate (i.e., short-term interest rate) at 0.25 percent, an all-time low. The Federal Reserve recently raised it slightly to 0.50 percent. The Federal Reserve also purchased U.S. Treasury securities to stimulate the economy.[4] As seen on page 4 of Schedule 2, both U.S. and corporate bond yields have declined to their lowest levels in the past four business cycles and in more than 35 years. Even with the 2013-2014 "tapering" and eventual ending of the Federal Reserve's Quantitative Easing program, interest rates have remained low. Currently, both government and corporate lending rates remain at historically low levels, again reflective of lower capital costs.

[3] The rate of inflation is one component of interest rate expectations of investors, who generally expect to receive a return in excess of the rate of inflation. Thus, a lower rate of inflation has a downward impact on interest rates and other capital costs.

[4] This is referred to as Quantitative Easing, in which the Federal Reserve initially purchased some $85 billion of U.S. Treasury Securities per month in order to stimulate the economy. The Federal Reserve eventually "tapered" its purchase of U.S. Treasury securities through October 2014, at which time Quantitative Easing ended.

Q. What does this schedule show for trends of common share prices?

A. Pages 5 and 6 of Schedule 2 show several series of common stock prices and ratios. These indicate that stock prices were essentially stagnant during the high inflation/high interest rate environment of the late 1970s and early 1980s. The 1983-1991 business cycle and the more recent cycles witnessed a significant upward trend in stock prices. The beginning of the recent financial crisis saw stock prices decline precipitously, as stock prices in 2008 and early 2009 were down significantly from peak 2007 levels, reflecting the financial/economic crisis. Beginning in the second quarter of 2009, prices recovered substantially and ultimately reached and exceeded the levels achieved prior to the "crash". On the other hand, recent equity markets have been somewhat volatile.

Q. What conclusions do you draw from your discussion of economic and financial conditions?

A. Recent economic and financial circumstances have differed from any that have prevailed since at least the 1930s. The late 2008-early 2009 deterioration in stock prices, the decline in U.S. Treasury bond yields, and an increase in corporate bond yields were evidenced in the then-evident "flight to safety." Concurrently, there was a decline in capital costs and returns, which significantly reduced the value of most retirement accounts, investment portfolios and other assets. One significant aspect of this has been a decline in investor expectations of returns,[5] even with the return of stock prices to levels achieved prior to the "crash". This evident in several ways: 1) lower interest rates on bank deposits; 2) lower interest rates on U.S. Treasury and corporate bonds; 3), lower increases in social security cost of living benefits;[6] and 4), lower authorized ROEs by regulatory commissions. Finally, as noted above,

[5] *See*, for example, Kiplinger's Personal Finance, "Investors Brace for Smaller Gains, Focus on Long-Term," August 30, 2015.

[6] The 2015 increase in Social Security benefits was 1.70 percent – near an all-time. There is no increase in 2016 Social Security benefits.

utility bond interest rates are currently at levels below those prevailing prior to the financial crisis of late 2008 to early 2009 and are near the lowest levels in the past 35 years.

Q. How do these economic/financial conditions impact the determination of a return on equity for regulated utilities?

A. The costs of capital for regulated utilities have declined in recent years. For example, the current interest costs that utilities pay on new debt remain near the low point of the last several decades. In addition, the results of the traditional ROE models (i.e., DCF, CAPM and CE) are lower than was the case prior to the Great Recession. In light of this, it is not surprising that the average ROE authorized by state regulatory agencies have declined and continue to decline through 2015, as follows:

Year	Electric[7]	Natural Gas
2012	10.01%	9.94%
2013	9.94%	9.68%
2014	9.76%	9.78%
2015	9.58%	9.60%

AWC'S OPERATIONS AND RISKS

Q. Please describe AWC.

A. AWC, the applicant in this proceeding, serves approximately 87,000 customers in 19 water systems in Arizona. AWC operates its Arizona water systems through three "groups" – Western (service areas covered in this proceeding) Eastern and Northern. The Western Group provides services to some 32,000 customers.

AWC, along with San Gabriel Valley Water Company (a California utility), is a subsidiary of UIC, which in turn is a subsidiary of United Resources, Inc.[8] ("URI").

[7] Average ROE values for electric utilities exclude Virginia surcharge/rider generation cases that incorporate plan-specific ROE premiums. *See* Regulatory Research Associates, Regulatory Focus, January 16, 2016, page 1.

Q. Please describe UIC and URI.

A. WIC owns AWC and San Gabriel Valley Water Co. WIC is, in turn, a subsidiary of URI.

Q. How is AWC financed?

A. All of AWC's debt capital is issued by the Company. Apparently, neither UIC nor URI have issued any debt.[9] I also note that, even though AWC operates three groups, it is financed on a total company basis.

Q. Is it feasible to directly assess the perceived risk of AWC relative to other water utilities?

A. No. AWC does not have rated debt, so it is not possible to compare its debt ratings with other water utilities. In addition, neither AWC's nor its parent companies' stock is followed by Value Line, so it is not possible to compare AWC's beta, safety, or financial strength with other water utilities.

Q. Is AWC requesting any new regulatory mechanisms in this proceeding that may impact its risk?

A. Yes. AWC is requesting a new regulatory mechanism – a System Improvements Benefits ("SIB") mechanism – in this proceeding. According to AWC's application, the Company currently has a SIB in its Eastern and Northern Group service areas. However, it is my understanding that the Commission has stayed all of these mechanisms pending the outcome of an appeal by the Residential Utility Consumer Office that is currently at the Arizona Supreme Court.

[8] Source: Response to Request DCP 3.1.
[9] Source: Response to Request DCP 3.3.

Q. Are you proposing a lower ROE for AWC in this proceeding as a result of the Company's proposed implementation of SIB?

A. No, I am not. Staff is recommending against approval of this mechanism at this time due to the uncertainty of the legality of the mechanism while an the appeal is pending in the Arizona Supreme Court. Regardless, I recommend that AWC be awarded a ROE no greater than the mid-point ROE derived from the proxy group results.

CAPITAL STRUCTURE AND COST OF DEBT

Q. What is the importance of determining a proper capital structure in a regulatory framework?

A. A utility's capital structure is important because the concept of rate base – rate of return regulation requires the capital structure to be utilized in estimating the total cost of capital. Within this framework, it is proper to ascertain whether the utility's capital structure is appropriate relative to its level of business risk and relative to other utilities.

As discussed in Section III of my testimony, the purpose of determining the proper capital structure for a utility is to ascertain its capital costs. The rate base – rate of return concept recognizes the assets employed in providing utility services and provides for a return on these assets by identifying the liabilities and common equity (and their cost rates) used to finance the assets. In this process, the rate base is derived from the asset side of the balance sheet and the cost of capital is derived from the liabilities/owners' equity side of the balance sheet. The inherent assumption in this procedure is that the dollar values of the capital structure and the rate base are approximately equal and the former is utilized to finance the latter.

The common equity ratio (i.e. the percentage of common equity in the capital structure) is the capital structure item which normally receives the most attention. This is the case because common equity: (1) usually commands the highest cost rate; (2) generates associated income

tax liabilities; and (3) causes the most controversy since its cost cannot be precisely determined.

Q. What are the historic capital structure ratios of AWC?

A. I have examined the historic (2010-2014) capital structure ratios of AWC. See Schedule 3. AWC's common equity ratios[10] have been:

	Including S-T Debt	Excluding S-T Debt
2010	51.0%	51.0%
2011	51.1%	51.1%
2012	50.8%	50.8%
2013	52.6%	52.6%
2014	53.7%	53.7%

This indicates that AWC's equity ratios have risen slightly over this period.

Q. How do these capital structures compare to those of investor-owned water utilities?

A. Schedule 4 shows the common equity ratios (including short-term debt in capitalization) for the group of proxy water utilities identified in a following section of my testimony. These are:

	Value Line Water Group
2011	47.3%
2012	48.9%
2013	51.9%
2014	52.6%
2015	52.3%

These common equity ratio ranges are similar to AWC's ratios.

[10] On a consolidated basis.

Q. Have you also conducted analyses of the historic and projected common equity ratios of your water proxy group?

A. Yes, I have. Schedule 5 shows the five-year historic (2011-2015) and estimated 2018-20 common equity ratios (excluding short-term debt) for my water utility proxy group. The summary results are as follows:

	Five-Year Historic		2018-20 Estimated	
Group	Average	Median	Average	Median
Proxy Group	52.7%	52.6%	52.8%	52.5%

These results indicate a common equity ratio of between 52 percent and 53 percent.

Q. What capital structure ratio has AWC requested in this proceeding?

A. AWC requests use of its consolidated test year capital structure as of December 31, 2014:

Capital Item	Percent
Long-Term Debt	46.31%
Common Equity	53.69%

Q. What capital structure do you propose to use in this proceeding?

A. I have also used AWC's proposed capital structure. This capital structure contains a common equity ratio that has risen over a period in which debt costs were at historic lows, indicating that this entity has engaged in the most expensive type of financing during a period in which the less expensive capital was readily available. On the other hand, AWC's parent companies do not issue any debt, such that its capital structure likely reflects its own operations. As a result, I also use the test year capital structure in my analyses.

Q. Does your proposed capital structure include short-term debt?

A. No, it does not. I normally prefer to include short-term debt in capitalization for cost of capital estimation. However, as Schedule 3 indicates, AWC has not employed short-term debt in recent years.

Q. What is the cost rate of debt in the Company's application?

A. AWC's filing requests a cost of long term debt of 6.82 percent, which is the Company's actual cost rate at December 31, 2014. I also use this rate in my cost of capital analyses.

Q. Can the ROE be determined with the same degree of precision as the cost of debt?

A. No. The cost rates of debt are largely determined by interest payments, issue prices, and related expenses. The ROE, on the other hand, cannot be precisely quantified, primarily because this cost is an opportunity cost. As mentioned previously, there are several models that can be employed to estimate the ROE. Three of the primary methods – DCF, CAPM, and CE – are developed in the following sections of my testimony.

SELECTION OF PROXY GROUP

Q. How have you estimated the ROE for AWC?

A. AWC is not a publicly-traded company. Its parent companies (UIC and URI) also are not publicly-traded. Consequently, it is not possible to directly apply ROE models to either AWC, UIC, or URI. However, in COC analyses, it is customary to analyze groups of comparison, or "proxy," companies as a substitute for AWC to determine its ROE.

I have accordingly selected such a group for comparison to AWC. This proxy group is selected from the group of nine water utilities included in Value Line Investment Survey and using the criteria listed on Schedule 6. This is a similar proxy group to the proxy group

employed by AWC witness Ahern in her ROE analyses. The only difference between our respective proxy groups is my inclusion of Artesian Resources, which she does not include in her proxy group.

DISCOUNTED CASH FLOW ANALYSIS

Q. What is the theory and methodological basis of the DCF model?

A. The DCF model is one of the oldest and most commonly-used models for estimating the ROE for public utilities. The DCF model is based on the "dividend discount model" of financial theory, which maintains that the value (price) of any security or commodity is the discounted present value of all future cash flows.

The most common variant of the DCF model assumes that dividends are expected to grow at a constant rate (the "constant growth" or "Gordon DCF model"). In this framework, the ROE is derived from the following formula:

$$K = \frac{D}{P} + g$$

where: P = current price

D = current dividend rate

K = discount rate (cost of capital)

G = constant rate of expected growth

This formula essentially recognizes that the return expected or required by investors is comprised of two factors: the dividend yield (current income) and expected growth in dividends (future income).

Q. Please explain how you employ the DCF model.

A. I use the constant growth DCF model. In doing so, I combine the current dividend yield for each of the proxy water utility stocks described in the previous section with several indicators of expected dividend growth.

Q. How did you derive the dividend yield component of the DCF equation?

A. Several methods can be used to calculate the dividend yield component. These methods generally differ in the manner in which the dividend rate is employed (i.e., current versus future dividends or annual versus quarterly compounding variant, which is expressed as follows:

$$Yield = \frac{D_0(1 + 0.5g)}{P_0}$$

This dividend yield component recognizes the timing of dividend payments and dividend increases.

The P_0 in my yield calculation is the average of the high and low stock price for each proxy company for the most recent three month period (November 2015 – January 2016). The D_0 is the current annualized dividend rate for each proxy company.

Q. How do you estimate the dividend growth component of the DCF equation?

A. The DCF model's dividend growth rate component is usually the most crucial and controversial element involved in using this methodology. The objective of estimating the dividend growth component is to reflect the growth expected by investors that is embodied in the price (and yield) of a company's stock. As such, it is important to recognize that individual investors have different expectations and consider alternative indicators in deriving

their expectations. This is evidenced by the fact that every investment decision resulting in the purchase of a particular stock is matched by another investment decision to sell that stock.

A wide array of indicators exists for estimating investors' growth expectations. As a result, it is evident that investors do not always use one single indicator of growth. It therefore is necessary to consider alternative dividend growth indicators in deriving the growth component of the DCF model. I have considered five indicators of growth in my DCF analyses. These are:

1. Years 2011-2015 (5-year average) earnings retention, or fundamental growth;
2. Five-year average of historic growth in earnings per share ("EPS"), dividends per share ("DPS"), and book value per share ("BVPS");
3. Years 2016 and 2018-2020 projections of earnings retention growth (per Value Line);
4. Years 2012-2014 to 2018-2020 projections of EPS, DPS, and BVPS (per Value Line); and,
5. Five-year projections of EPS growth (per First Call).

I believe this combination of growth indicators is a representative and appropriate set with which to begin the process of estimating investor expectations of dividend growth for the group of proxy companies. I also believe that these growth indicators reflect the types of information that investors consider in making their investment decisions. As I indicated previously, investors have an array of information available to them, all of which would be expected to have some impact on their decision-making process.

Q. Please describe your DCF calculations.

A. Schedule 7 presents my DCF analysis. Page 1 shows the calculation of the "raw" (i.e. prior to adjustment for growth) dividend yield for each proxy company. Pages 2 and 3 show the growth rates for the group of proxy companies. Page 4 shows the DCF calculations, which are presented on several bases: mean, median, and high values. These results can be summarized as follows:

	Mean	Median	Mean High[11]	Median High[11]
Value Line Water Group	7.7%	7.7%	8.6%	8.1%

I note that the individual DCF calculations shown on Schedule 7 should not be interpreted to reflect the expected cost of capital for individual companies in the proxy group; rather, the individual values shown should be interpreted as alternative information considered by investors.

Q. What do you conclude from your DCF analyses?

A. The DCF rates resulting from the analysis of the proxy group falls into a range between 7.7 percent and 8.6 percent. The highest DCF rates are 8.1 percent to 8.6 percent (8.35 percent mid-point). I believe an 8.6 percent represents the current DCF-derived ROE for the proxy group. I recommend a cost of equity of 8.6 percent for AWC, which focuses on the upper portion of the DCF range. I focus on the higher DCF results since recent financial conditions have had the effect of driving many of the DCF results to low levels relative to those of recent years. As such, my recommendation can be viewed as conservative.

[11] Using only the highest growth rate.

CAPITAL ASSET PRICING MODEL ANALYSIS

Q. Please describe the theory and methodological basis of the CAPM.

A. CAPM was developed in the 1960s and 1970s as an extension of modern portfolio theory ("MPT"), which studies the relationships among risk, diversification, and expected returns. The CAPM describes and measures the relationship between a security's investment risk and its market rate of return.

Q. How is the CAPM derived?

A. The general form of the CAPM is:

$$K = R_f + \beta(R_m - R_f)$$

where: K = cost of equity

R_f = risk free rate

Rm = return on market

β = beta

R_m-R_f = market risk premium

The CAPM is a variant of the RP method. I believe the CAPM is generally superior to the simple RP method because the CAPM specifically recognizes the risk of a particular company or industry (i.e., beta), whereas the simple RP method assumes the same ROE for all companies exhibiting similar bond ratings or other characteristics.

Q. What value do you use for the risk-free rate?

A. The first input of the CAPM is the risk-free rate (R_f). The risk-free rate reflects the level of return that can be achieved without accepting any risk.

In CAPM applications, the risk-free rate is generally recognized by use of U.S. Treasury securities. Two general types of U.S. Treasury securities are often utilized as the Rf component: short-term U.S. Treasury bills and long-term U.S. Treasury bonds.

I have performed CAPM calculations using the three-month average yield (November 2015-January 2016) for 20-year U.S. Treasury bonds. I use the yields on long-term Treasury bonds since this matches the long-term perspective of ROE analyses. Over this three month period, these bonds had an average yield of 2.60 percent.

Q. What is beta and what betas do you employ in your CAPM?

A. Beta is a measure of the relative volatility (and thus risk) of a particular stock in relation to the overall market. Betas less than 1.0 are considered less risky than the market, whereas betas greater than 1.0 are more risky. Utility stocks traditionally have had betas below 1.0. I utilize the most recent Value Line betas for each company in my proxy group.

Q. How do you estimate the market risk premium component?

A. The market risk premium component (R_m-R_f) represents the investor-expected premium of common stocks over the risk-free rate, or long-term government bonds. For the purpose of estimating the market risk premium, I considered alternative measures of returns of the S&P 500 (a broad-based group of large U.S. companies) and 20-year U.S. Treasury bonds (i.e., same timeframe as sources used to develop risk premiums).

First, I compared the actual annual returns on equity of the S&P 500 with the actual annual yields of U.S. Treasury bonds. Schedule 8 shows the ROE for the S&P 500 group for the period 1978-2014 (all available years reported by S&P). This schedule also indicates the annual yields on 20-year U.S. Treasury bonds and the annual differentials (i.e. risk premiums)

between the S&P 500 and U.S. Treasury 20-year bonds. Based upon these returns, I conclude that the risk premium from this analysis is 6.85 percent.

I next considered the total returns (i.e. dividends/interest plus capital gains/losses) for the S&P 500 group as well as for long-term (i.e., 20-year) government bonds, as tabulated by Morningstar (formerly Ibbotson Associates), using both arithmetic and geometric means. I considered the total returns for the entire 1926-2014 period, which are as follows:

	S&P 500	L-T Gov't Bonds	Risk Premium
Arithmetic	12.1%	6.1%	6.0%
Geometric	10.1%	5.7%	4.4%

I conclude from this analysis that the expected risk premium is about 5.75 percent (i.e. average of all three risk premiums (6.85 percent from Schedule 8; 6.0 percent arithmetic and 4.4 percent geometric from Morningstar). I believe that a combination of arithmetic and geometric means is appropriate since investors have access to both types of means[12] and presumably, both types are reflected in investment decisions and thus, stock prices and the ROE.

Q. What are your CAPM results?

A. Schedule 9 shows my CAPM calculations. The results are:

	Mean	Median
Value Line Water Group	6.6%	6.6%

[12] For example, Value Line uses compound (i.e., geometric) growth rates in its projection. In addition, mutual funds report growth rates on a compound basis.

Q. What is your conclusion concerning the CAPM ROE?

A. The CAPM results collectively indicate a ROE of 6.6 percent for the group of proxy utilities. I conclude that an appropriate CAPM ROE estimation for AWC is 6.6 percent.

COMPARABLE EARNINGS ANALYSIS

Q. Please describe the basis of the CE methodology.

A. The CE method is derived from the "corresponding risk" concept discussed in the Bluefield and Hope cases. This method is thus based upon the economic concept of opportunity cost. As previously noted, the ROE is an opportunity cost: the prospective return available to investors from alternative investments of similar risk.

The CE method is designed to measure the returns expected to be earned on the original cost book value of similar risk enterprises. Thus, it provides a direct measure of the fair return, since it translates into practice the competitive principle upon which regulation rests.

The CE method normally examines the experienced and/or projected return on book common equity. The logic for examining returns on book equity follows from the use of original cost rate base regulation for public utilities, which uses a utility's book common equity to determine the cost of capital. This cost of capital is, in turn, used as the fair rate of return which is then applied (multiplied) to the book value of rate base to establish the dollar level of capital costs to be recovered by the utility. This technique is thus consistent with the rate base-rate of return methodology used to set utility rates.

Q. How do you apply the CE methodology in your analysis of AWC's ROE?

A. I apply the CE methodology by examining realized returns on equity for the group of proxy water companies, as well as unregulated companies, and evaluating investor acceptance of

these returns by reference to the resulting market-to-book ratios ("M/B"). In this manner it is possible to assess the degree to which a given level of return equates to the COC. It is generally recognized for utilities that M/B of greater than one (i.e. 100 percent) reflects a situation where a company is able to attract new equity capital without dilution (i.e. above book value). As a result, one objective of a fair cost of equity is the maintenance of stock prices at or above book value. There is no regulatory obligation to set rates designed to maintain a M/B significantly above one.

I further note that my CE analysis based upon market data (through the use of M/B) and is thus essentially a market test. As a result, my CE analysis is not subject to the criticisms occasionally made by some who maintain that past earned returns do not represent the cost of capital. In addition, my CE analysis also uses prospective returns and thus is not backward looking.

Q. What time periods do you examine in your CE analysis?

A. My CE analysis first considers the experienced ROEs of the proxy group of utilities for the period 2002-2015 (i.e. the last fourteen years). The CE analysis requires that I examine a relatively long period of time in order to determine trends in earnings over at least a full business cycle. Further, in estimating a fair level of return for a future period, it is important to examine earnings over a diverse period of time in order to avoid any undue influence from unusual or abnormal conditions that may occur in a single year or shorter period. Therefore, in forming my judgment of the current ROE, I focused on two periods: 2009-2015 (the current business cycle) and 2002-2008 (the most recent business cycle). I have also considered projected ROEs for 2016 and 2018-2020.

Q. Please describe your CE analysis.

A. Schedules 10 and 11 contain summaries of experienced ROEs for two groups of companies, while Schedule 12 presents a risk comparison of utilities versus unregulated firms.

Schedule 10 shows the ROEs and M/B for the group of proxy utilities. These can be summarized as follows:

	Value Line Water Group
Historic ROE	
Mean	9.8-9.9%
Median	9.3-9.7%
Historic M/B	
Mean	198-232%
Median	182-219%
Prospective ROE	
Mean	10.5-10.7%
Median	9.5-10.0%

These results indicate that historic ROEs of 9.3 percent to 9.9 percent have been adequate to produce M/Bs of 182 percent to 232 percent for the group of utilities. Furthermore, projected returns on equity for 2016 and 2018-2020 are within a range of 9.5 percent to 10.7 percent for the utility group. These relate to 2015 M/Bs of 200 percent or greater.

Q. Do you also review the ROEs of unregulated firms?

A. Yes. As an alternative, I also examine the S&P's 500 Composite group. This is a well recognized group of firms that is widely utilized in the investment community and is indicative of the competitive sector of the economy. Schedule 11 presents the earned ROEs and M/Bs for the S&P 500 group over the past thirteen years (i.e., 2002-2014). As this schedule indicates, over the two business cycle periods, this group's average ROEs ranged

from 12.4 percent to 13.6 percent, with average M/B ranging between 220 percent and 275 percent.

Q. How can the above information be used to estimate AWC's ROE?

A. The recent ROE of the proxy utilities and S&P 500 groups can be viewed as an indication of the level of return realized and expected in the regulated and competitive sectors of the economy. In order to apply these returns to the ROE for the proxy utilities, however, it is necessary to compare the risk levels of the water utilities and the competitive companies. I do this in Schedule 12, which compares several risk indicators for the S&P 500 group and the water utility group. The information in Schedule 12 indicates that the S&P 500 group is more risky than the water utility proxy group.

Q. What ROE is indicated by your CE analysis?

A. Based on recent ROEs and M/Bs, my CE analysis indicates that the ROE for the proxy utilities is no more than 9.0 percent to 10.0 percent (9.5 percent mid-point). Recent ROEs of 9.3 percent to 9.9 percent have resulted in M/Bs more than 180 percent. Prospective ROEs of 9.5 percent to 10.7 percent have been accompanied by M/B over 200 percent. As a result, it is apparent that authorized ROEs below this level would continue to result in M/B of well above 100 percent. An ROE return of 9.5 percent should thus result in an M/Bs well above 100 percent. As I indicated earlier, the fact that M/Bs substantially exceeds 100 percent indicates that historic and prospective ROE of 9.5 percent reflect earning levels that are well above the actual cost of equity for those regulated companies. I also note that a company whose stock sells above book value can attract capital in a way that enhances the book value of existing stockholders, thus creating a favorable environment for financial integrity. Finally, I note that my 9.0 percent to 10.0 percent CE ROE recommendation generally reflects the

actual and prospective ROEs for the water proxy group. I have made no adjustments to these return levels to reflect the high level of M/Bs.

RETURN ON EQUITY RECOMMENDATION

Q. Please summarize the results of your three ROE analyses.

A. My three ROE analyses produced the following:

DCF 8.60%

CAPM 6.60%

CE 9.50%

These results indicate an overall broad range of 6.60 percent to 9.50 percent, which focuses on the respective individual model results. I recommend a ROE range of 8.6 percent to 9.50 percent for AWC. This range includes my DCF result (8.6 percent), and my CE result (9.50 percent). For the purposes of this proceeding, I recommend the average of these values, which is 9.05 percent.

Q. It appears that your CAPM results are less than your DCF and CE results. Does this imply that the CAPM results should not be considered in determining the ROE for AWC?

A. No. It is apparent that the CAPM results are less than the DCF and CE results. There are two reasons for the lower CAPM results. First, risk premiums are lower currently than was the case in prior years. This is the result of lower equity returns that have been experienced over the past several years. This is also reflective of a decline in investor expectations of equity returns and risk premiums. Second, the level of interest rates on U.S. Treasury bonds (i.e., the risk free rate) has been lower in recent years. This is partially the result of the actions

of the Federal Reserve System to stimulate the economy. This also impacts investor expectations of returns in a negative fashion. I note that, initially, investors may have believed that the decline in Treasury yields was a temporary factor that would soon be replaced by a rise in interest rates. However, this has not been the case as interest rates have remained low and continued to decline for the past five-plus years. As a result, it cannot be maintained that low interest rates (and low CAPM results) are temporary and do not reflect investor expectations. Consequently, the CAPM results should be considered as one factor in determining the cost of equity for AWC.

TOTAL COST OF CAPITAL

Q. What is the total cost of capital for AWC?

A. Schedule 1 reflects the COC for AWC using the test year capital structure and embedded cost of debt, as well as my ROE recommendations. The resulting total COC is a range of 7.78 percent to 8.22 percent with an 8.02 percent midpoint. I recommend an 8.02 percent total COC for AWC.

COMMENTS ON COMPANY TESTIMONY

Q. What cost of capital has AWC requested in its application?

A. The Company's filing requests a COC of 8.93 percent, which incorporates a ROE of 10.75 percent. The 10.75 percent requested ROE is developed in the testimony of AWC witness Pauline M. Ahern.

	Ahern Group of Eight AUS Water Utility Companies
DCF Model	8.64%
Risk Premium Model	10.76%
CAPM	9.58%
Indicated Median Cost of Equity	9.60%
Credit Risk Adjustment	0.63%
Business Risk Adjustment	0.50%
Indicated ROE	10.73%
Recommended ROE	10.75%

Q. Do you have any disagreements with any or all of Ms. Ahern's methodologies and recommendations?

A. Yes. I have disagreements with several of her cost of equity methodologies and conclusions, as well as her proposed 0.63 percent "credit risk adjustment" and 0.50 percent "business risk adjustment" for AWC.

Q. Please begin with her DCF model and conclusions.

A. Ms. Ahern's 8.64 percent DCF conclusion is shown on Exhibit PMA-5. This is similar to my DCF results.

Q. Please describe Ms. Ahern's risk premium approach and conclusions.

A. Ms. Ahern performs two types of risk premium analyses. First, she employs a Predictive Risk Premium Model™ ("PRPM™") which produces an 11.59 percent ROE. Second, she develops her Adjusted Total Market Approach risk premium methodology to arrive at a risk premium ROE of 9.93 percent. Her risk premium method conclusion and recommendation is 10.76 percent (Exhibit PMA-7), which gives equal weighting to the PRPM™ approach and the Adjusted Total Market Approach.

Q. What is Ms. Ahern's first risk premium methodology?

A. Ms. Ahern first performs a relatively new type of risk premium approach, which is her PRPM™ approach. This approach is new and untried. Significantly, the result of this methodology is an 11.59 percent ROE conclusion, which greatly exceeds (i.e., over 165 basis points) the results of her Adjusted Total Market Approach risk premium approach. I again note that, not only does her PRPM™ approach produce a much higher cost of equity result; the approach is also a component in her Adjusted Total Market Approach methodologies and has the effect of raising the results of this methodology as well.

Q. Do you agree with her adjusted total market approach methodology and conclusions?

A. No, I do not. Ms. Ahern's Adjusted Total Market Return approach incorporates a risk premium of 4.87 percent, derived as follows:

Calculated equity risk premium based	
On total market using beta approach:	
Ibbotson Equity Risk Premium	5.89%
Ibbotson Equity Risk Premium based on PRPM	6.34%
Equity Risk Premium Based on Value Line	5.05%
Equity Risk Premium Based on S&P 500 Cos	8.47%
Average	6.44%
Adjusted Beta	0.77
Forecasted Risk Premium	**4.96%**
Arithmetic mean Holding Period Returns on S&P 500	10.69%
Arithmetic mean Yield on A rated utility bonds	-6.48%
Historic Equity Risk Premium	4.21%
Forecasted Equity risk Premium based on PRPM	4.47%
Forecasted Equity Risk Premium based on projected Total return on S&P Utilities Index	5.62%
Average of Historical and PRPM Equity Risk Premia	**4.77%**
Average Equity Risk Premium	**4.87%**

Of the seven risk premia shown above, two are based on the PRPM Approach, which I have shown above to be improper. In addition, the 8.47 percent risk premium based on the S&P

500 companies is clearly an outlier, and is based upon an assumed total return of 13.22 percent for this index (well above its historical returns of 12 percent or less). The remaining four risk premium measures form a range of 4.21 percent to 5.62 percent (5.19 percent average) which is similar to my risk premium indicators in my CAPM analyses.

Furthermore, there are several problems with her methodologies. Her use of total stock returns over the 1926-2014 period, in connection with bond yields over the same long period, seems to imply that investors in 2016 expect such relationships to be the same. There is no demonstration that current investors expect such relationships to exist at the current time. Her methodology is also a mismatch since it compares holding period returns (i.e., capital gains/losses plus income) with yields on bonds (i.e., only income return). In addition, the 1926-2014 period was heavily influenced by the Great Depression, World War II, the high inflation/interest rate environment of the 1970s/1980s, etc. Such factors are not prevalent currently and have the effect of inflating risk premiums over those expected by investors. I believe Ms. Ahern's analyses over-state the required risk premiums at the present time. In addition, I find it inconsistent on her part to defend use of historic data going back to 1926 in her risk premium and CAPM analyses, and to then ignore historic data in her DCF analyses. I do not see how an investor would place equal weight between returns in 1926 and 2015 in one type of analysis (i.e., risk premium and CAPM) and then give no weight whatsoever to recent (i.e., 5 years) experience in DCF analysis. I also disagree with Ms. Ahern's use of projected equity returns, which are largely dependent on assumed stock market values. This is speculative.

Q. You indicate that Ms. Ahern's risk premium and CAPM analyses use forecasted yields on U.S. treasury and utility bonds. Why do you disagree with this?

A. It is proper to use the current yield, rather than a projected yield, as the risk-free rate in a risk premium and CAPM context. This is the case since the current yield is known and measurable and reflects investors' collective assessment of all relevant capital market conditions. Prospective interest rates, in contrast, are not measurable and not achievable. For example, if the current yield on 20-year U.S. Treasury Bonds is 2.5 percent, this reflects the rate that investors can actually receive on their investment. Investors cannot receive a prospective yield on their investments since such a yield is not actual but rather speculative.

Use of the current yield in a DCF context is similar to using the current risk-free rate in a CAPM context. Analysts do not use prospective stock prices as the basis for the dividend yield in a DCF analysis, as use of prospective stock prices is speculative. Use of current stock prices is appropriate as this is consistent with the efficient market hypothesis that Ms. Ahern cites in her testimony. Likewise, current levels of interest rates reflect all current information (i.e., the efficient market hypothesis) and should be used as the risk-free rate in the CAPM.

Q. Please describe Ms. Ahern's CAPM analyses.

A. Ms. Ahern performs two sets of CAPM analyses. Her first CAPM is a "traditional" CAPM, where she concludes that 9.31-9.40 percent is the CAPM cost. This uses a risk free rate of 3.69 percent (projected yield on 30-year U.S. Treasury bonds), Value Line betas and a risk premium of 7.41 percent. I note that current 30-year Treasury bonds currently yield well below 3.69 percent, which indicates that her prospective yield is excessive.

I also disagree with the 7.41 percent market risk premium Ms. Ahern employs in her CAPM analyses. This market risk premium is developed in a similar fashion to those in her risk

premium analyses. For the same reasons cited above, Ms. Ahern's risk premium values are over-stated.

Ms. Ahern also performs an "empirical" CAPM analysis, wherein she assigns 75 percent weight to actual betas for the proxy groups of water utilities and a 25 percent weight to an assumed beta of 1.0 (i.e., the market beta). I disagree with this empirical CAPM, since it arbitrarily ignores the actual betas of the proxy utilities and, instead, assigns hypothetical betas to them.

Q. Ms. Ahern concludes that the "indicated cost of equity" for her proxy group is 9.60 percent, which she increases by some 0.63 percent to reflect her perception of a required "financial risk adjustment" for AWC. What is your response to this proposed adjustment?

A. I disagree with Ms. Ahern's proposed financial risk adjustment for AWC. She makes this financial risk, or credit risk, adjustment due to her perception that AWC, if it had a rated debt, it would have a triple-B credit rating, which is slightly lower than the average credit rating of the proxy water utilities. Her proposed 0.63 percent financial risk adjustment reflects her estimate of the differential yield between a Baa2 and A2/A3 rated utilities. This adjustment is not warranted. AWC's cost of debt is fully recoverable through its COC and there is no justification for inflating its ROE.

Q. Do you agree with the proposition that AWC should be entitled to a size or credit risk adjustment?

A. No, I do not. AWC's ratepayers should not be charged water rates which reflect in incremental return to reflect the size of the Company. Such an increment is not justified and not appropriate.

Q. Is it proper to compare the size of AWC to the water proxy companies and make risk comparisons based upon the size differentials between them?

A. No, it is not proper. Most of the proxy water utilities have multiple subsidiaries that operate in different jurisdictions. Following Ms. Ahern's reasoning, each of the subsidiaries of the proxy water utilities should be considered as more risky than the proxy group since, by definition, they would have to be smaller. This reasoning is flawed, since these individual water company subsidiaries do not raise their equity capital directly from investors, but rather do so as a consolidated entity.

Q. Are there other reasons why a size adjustment is improper?

A. Yes. There are other compelling reasons why a small size adjustment is not proper for regulated utilities. Ms. Ahern's proposed size adjustment is based upon her reference to the Morningstar/Ibbotson studies. However, the small size adjustment in the Morningstar/Ibbotson studies is based on the analysis of all stocks, the majority of which are unregulated and include industries that are much more risky than utilities. While it may or may not be true that on an overall market basis, smaller publicly-traded firms exhibit more risk than larger firms, these smaller companies stocks tend to be engaged in riskier businesses as a whole than do larger businesses. Such is not the case for regulated utilities.

Indeed, an academic study conducted by Professor Annie Wong found that:

> "**utility and industrial stocks do not share the same characteristics**. First, given firm size, utility stocks are consistently less risky than industrial stocks. Second, industrial bets tend to decrease with firm size but utility betas do not. These findings may be attributed to the fact that all public utilities operate in an environment with regional monopolistic power than regulated financial structure. As a result, the business and financial risks are very similar among the utilities regardless of their sizes. Therefore, utility betas would not necessarily be expected to be related to firm size.

> . . .
> This implies that although the price phenomenon has been strongly documented for the industrials, the **findings suggest that there is no need to adjust for the firm size in utility rate regulation.**"[13] **[Emphasis Added.]**

Q. Can you provide any evidence that "size" or "business risk" adjustments are not generally recognized as risk factors in regulatory proceedings such as this one?

A. Yes, I can. The following table reflects the average size (as measured by net plant) and currently authorized returns on equity or various types of regulated utilities:

Industry	Average Net Plant (000)	Average Authorized ROE[14]
Electric	$18,285	10.42%
Combination Electric-Gas	$17,856	10.30%
Natural Gas	$3,519	10.28%
Water	$2,604	9.65%

Source: AUS Utility Reports, January 2016.

As shown here the smallest utilities (i.e., water utilities) have the lowest authorized ROEs.

Q. Is there any evidence that small water companies are not perceived as more risky than larger water utilities?

A. Yes, there is. Schedule 13 indicates that this is the case. As this schedule indicates, there are no apparent risk-indicator differentials as one looks at the water proxy group members sorted according to size.

[13] Wong, Annie, "Utility Stocks and the Size Effect: An Empirical Analysis," Journal of the Midwest Finance Association, 1993, pp. 95-101.

[14] Note that "Authorized" ROEs do not necessarily indicate "recently authorized" ROEs, since some ROEs were established in prior periods. Moreover, AUS reports each utility's most recent explicitly-authorized ROE even where that result is aged and has been superseded by a more recent "black box" rate settlement.

Q. Can you provide any direct comparisons of electric utilities that demonstrates that smaller utilities are not more risky than larger ones?

A. Yes. Implicit in Ms. Ahern's proposal is an assumption that any perceived small size risk adjustment for unregulated companies (i.e., source of information cited in Morningstar/Ibbotson source Ms. Ahern relies on for small size adjustment) applies to regulated public utilities. Schedule 14 demonstrates objectively that this is not the case. As this exhibit shows, there is no significant difference, and even more to the point that there is no discernible pattern of increase, among the risk indicators of publicly-traded electric utilities of different sizes.[15] The table below summarizes the information contained in this schedule:

Cap Size	Safety	Beta	Financial Strength	S&P Rank	S&P Rating	Moody's Rating
Under $2 B	2.0	.81	B++	B+	A-/BBB+	A3/Baa1
$2 - $5 B	2.2	.79	B++	A-/B+	BBB+	Baa1
$5-$10 B	1.9	.76	A/B++	B+	BBB+	A3/Baa1
$10-$20 B	1.8	.69	A/B++	B+	A-/BBB+	A3/Baa1
$20 B Plus	2.1	.68	A/B++	B+	A-/BBB+	A3/Baa1

The safety rank, beta values, financial strength and S&P stock ranking are about the same for all sizes of electric utilities. These risk indicators do not reflect any risk differential as the size of the electric utilities decrease from large to small. To the contrary, this data indicates that regulated monopoly utility providers have approximately the same risk regardless of size. As a result, the logic Ms. Ahern uses to justify his proposed small size adjustment is not justified.

Q. Does this conclude your direct testimony?

A. Yes, it does.

[15] I also consider electric utilities in this "size risk" analysis since there is a larger population of electric utilities, relative to water utilities.

Exhibit DCP-1
Schedule 1

ARIZONA WATER COMPANY
TOTAL COST OF CAPITAL

Item	Percent 1/	Cost	Weighted Cost
Long-Term Debt	46.31%	6.82% 1/	3.16%
Equity	53.69%	8.60% 9.05% 9.50%	4.62% 4.86% 5.10%
Total	100.00%		7.78% **8.02% (Mid-point)** 8.26%

1/ As contained in Company filing.

ECONOMIC INDICATORS

Year	Real GDP* Growth	Industrial Production Growth	Unemployment Rate	Consumer Price Index
		1975 - 1982 Cycle		
1975	-1.1%	-8.9%	8.5%	7.0%
1976	5.4%	10.8%	7.7%	4.8%
1977	5.5%	5.9%	7.0%	6.8%
1978	5.0%	5.7%	6.0%	9.0%
1979	2.8%	4.4%	5.8%	13.3%
1980	-0.2%	-1.9%	7.0%	12.4%
1981	1.8%	1.9%	7.5%	8.9%
1982	-2.1%	-4.4%	9.5%	3.8%
		1983 - 1991 Cycle		
1983	4.0%	3.7%	9.5%	3.8%
1984	6.8%	9.3%	7.5%	3.9%
1985	3.7%	1.7%	7.2%	3.8%
1986	3.1%	0.9%	7.0%	1.1%
1987	2.9%	4.9%	6.2%	4.4%
1988	3.8%	4.5%	5.5%	4.4%
1989	3.5%	1.8%	5.3%	4.6%
1990	1.8%	-0.2%	5.6%	6.1%
1991	-0.5%	-2.0%	6.8%	3.1%
		1992 - 2001 Cycle		
1992	3.0%	3.1%	7.5%	2.9%
1993	2.7%	3.4%	6.9%	2.7%
1994	4.0%	5.5%	6.1%	2.7%
1995	3.7%	4.8%	5.6%	2.5%
1996	4.5%	4.3%	5.4%	3.3%
1997	4.5%	7.3%	4.9%	1.7%
1998	4.2%	5.8%	4.5%	1.6%
1999	3.7%	4.5%	4.2%	2.7%
2000	4.1%	4.0%	4.0%	3.4%
2001	1.1%	-3.4%	4.7%	1.6%
		2002 - 2009 Cycle		
2002	1.8%	0.2%	5.8%	2.4%
2003	2.8%	1.2%	6.0%	1.9%
2004	3.8%	2.3%	5.5%	3.3%
2005	3.4%	3.2%	5.1%	3.4%
2006	2.7%	2.2%	4.6%	2.5%
2007	1.8%	2.5%	4.6%	4.1%
2008	-0.3%	-3.4%	5.8%	0.1%
2009	-2.8%	-11.3%	9.3%	2.7%
		Current Cycle		
2010	2.5%	5.7%	9.6%	1.5%
2011	1.6%	3.3%	8.9%	3.0%
2012	2.3%	3.8%	8.1%	1.7%
2013	2.2%	2.9%	7.4%	1.5%
2014	2.4%	4.1%	6.2%	0.8%
2015	2.4%		5.3%	

*GDP=Gross Domestic Product

Source: Council of Economic Advisors, Economic Indicators, various issues

ECONOMIC INDICATORS

Year	Real GDP* Growth	Industrial Production Growth	Unemploy-ment Rate	Consumer Price Index
2004				
1st Qtr.	3.0%	2.8%	5.6%	5.2%
2nd Qtr.	3.5%	4.9%	5.6%	4.4%
3rd Qtr.	3.6%	4.6%	5.4%	0.8%
4th Qtr.	2.5%	4.3%	5.4%	3.6%
2005				
1st Qtr.	4.1%	3.8%	5.3%	4.4%
2nd Qtr.	1.7%	3.0%	5.1%	1.6%
3rd Qtr.	3.1%	2.7%	5.0%	8.8%
4th Qtr.	2.1%	2.9%	4.9%	-2.0%
2006				
1st Qtr.	5.4%	3.4%	4.7%	4.8%
2nd Qtr.	1.4%	4.5%	4.6%	4.8%
3rd Qtr.	0.1%	5.2%	4.7%	0.4%
4th Qtr.	3.0%	3.5%	4.5%	0.0%
2007				
1st Qtr.	0.9%	2.5%	4.5%	4.8%
2nd Qtr.	3.2%	1.6%	4.5%	5.2%
3rd Qtr.	2.3%	1.8%	4.6%	1.2%
4th Qtr.	2.9%	1.7%	4.8%	6.4%
2008				
1st Qtr.	-1.8%	1.9%	4.9%	2.8%
2nd Qtr.	1.3%	0.2%	5.3%	7.6%
3rd Qtr.	-3.7%	-3.0%	6.0%	2.8%
4th Qtr.	-8.9%	6.0%	6.9%	-13.2%
2009				
1st Qtr.	-5.3%	-11.6%	8.1%	2.4%
2nd Qtr.	-0.3%	-12.9%	9.3%	3.2%
3rd Qtr.	1.4%	-9.3%	9.6%	2.0%
4th Qtr.	4.0%	-4.5%	10.0%	2.5%
2010				
1st Qtr.	1.6%	2.7%	9.7%	0.9%
2nd Qtr.	3.9%	6.5%	9.7%	-1.2%
3rd Qtr.	2.8%	6.9%	9.6%	2.8%
4th Qtr.	2.8%	6.2%	9.6%	2.8%
2011				
1st Qtr.	-1.5%	5.4%	9.0%	4.8%
2nd Qtr.	2.9%	3.6%	9.0%	3.2%
3rd Qtr.	0.8%	3.3%	9.1%	2.4%
4th Qtr.	4.6%	4.0%	8.7%	0.4%
2012				
1st Qtr.	2.3%	4.5%	8.3%	3.2%
2nd Qtr.	1.6%	4.7%	8.2%	0.0%
3rd Qtr.	2.5%	3.4%	8.1%	4.0%
4th Qtr.	0.1%	2.8%	7.8%	0.0%
2013				
1st Qtr.	1.9%	2.5%	7.7%	2.0%
2nd Qtr.	1.1%	2.0%	7.6%	1.2%
3rd Qtr.	3.0%	2.6%	7.3%	1.6%
4th Qtr.	3.9%	3.3%	7.0%	1.2%
2014				
1st Qtr.	-0.9%	3.2%	6.6%	1.6%
2nd Qtr.	4.6%	4.2%	6.2%	3.6%
3rd Qtr.	4.3%	4.2%	6.1%	0.0%
4th Qtr.	2.1%	4.5%	5.7%	-2.8%
2015				
1st Qtr.	0.6%	3.5%	5.6%	-1.2%
2nd Qtr.	3.9%	1.5%	5.4%	3.2%
3rd Qtr.	2.0%	1.2%	5.2%	-0.1%
4th Qtr.			5.0%	

*GDP=Gross Domestic Product

Source: Council of Economic Advisors, Economic Indicators, various issues.

INTEREST RATES

Year	Prime Rate	US Treasury T Bills 3 Month	US Treasury T Bonds 10 Year	Utility Bonds Aaa	Utility Bonds Aa	Utility Bonds A	Utility Bonds Baa
			1975 - 1982 Cycle				
1975	7.86%	5.84%	7.99%	9.03%	9.44%	10.09%	10.96%
1976	6.84%	4.99%	7.61%	8.63%	8.92%	9.29%	9.82%
1977	6.83%	5.27%	7.42%	8.19%	8.43%	8.61%	9.06%
1978	9.06%	7.22%	8.41%	8.87%	9.10%	9.29%	9.62%
1979	12.67%	10.04%	9.44%	9.86%	10.22%	10.49%	10.96%
1980	15.27%	11.51%	11.46%	12.30%	13.00%	13.34%	13.95%
1981	18.89%	14.03%	13.93%	14.64%	15.30%	15.95%	16.60%
1982	14.86%	10.69%	13.00%	14.22%	14.79%	15.86%	16.45%
			1983 - 1991 Cycle				
1983	10.79%	8.63%	11.10%	12.52%	12.83%	13.66%	14.20%
1984	12.04%	9.58%	12.44%	12.72%	13.66%	14.03%	14.53%
1985	9.93%	7.48%	10.62%	11.68%	12.06%	12.47%	12.96%
1986	8.33%	5.98%	7.68%	8.92%	9.30%	9.58%	10.00%
1987	8.21%	5.82%	8.39%	9.52%	9.77%	10.10%	10.53%
1988	9.32%	6.69%	8.85%	10.05%	10.26%	10.49%	11.00%
1989	10.87%	8.12%	8.49%	9.32%	9.56%	9.77%	9.97%
1990	10.01%	7.51%	8.55%	9.45%	9.65%	9.86%	10.06%
1991	8.46%	5.42%	7.86%	8.85%	9.09%	9.36%	9.55%
			1992 - 2001 Cycle				
1992	6.25%	3.45%	7.01%	8.19%	8.55%	8.69%	8.86%
1993	6.00%	3.02%	5.87%	7.29%	7.44%	7.59%	7.91%
1994	7.15%	4.29%	7.09%	8.07%	8.21%	8.31%	8.63%
1995	8.83%	5.51%	6.57%	7.68%	7.77%	7.89%	8.29%
1996	8.27%	5.02%	6.44%	7.48%	7.57%	7.75%	8.16%
1997	8.44%	5.07%	6.35%	7.43%	7.54%	7.60%	7.95%
1998	8.35%	4.81%	5.26%	6.77%	6.91%	7.04%	7.26%
1999	8.00%	4.66%	5.65%	7.21%	7.51%	7.62%	7.88%
2000	9.23%	5.85%	6.03%	7.88%	8.06%	8.24%	8.36%
2001	6.91%	3.44%	5.02%	7.47%	7.59%	7.78%	8.02%
			2002 - 2009 Cycle				
2002	4.67%	1.62%	4.61%	[1]	7.19%	7.37%	8.02%
2003	4.12%	1.01%	4.01%		6.40%	6.58%	6.84%
2004	4.34%	1.38%	4.27%		6.04%	6.16%	6.40%
2005	6.19%	3.16%	4.29%		5.44%	5.65%	5.93%
2006	7.96%	4.73%	4.80%		5.84%	6.07%	6.32%
2007	8.05%	4.41%	4.63%		5.94%	6.07%	6.33%
2008	5.09%	1.48%	3.66%		6.18%	6.53%	7.25%
2009	3.25%	0.16%	3.26%		5.75%	6.04%	7.06%
			Current Cycle				
2010	3.25%	0.14%	3.22%		5.24%	5.46%	5.96%
2011	3.25%	0.06%	2.78%		4.78%	5.04%	5.57%
2012	3.25%	0.09%	1.80%		3.83%	4.13%	4.86%
2013	3.25%	0.06%	2.35%		4.24%	4.47%	4.98%
2014	3.25%	0.03%	2.54%		4.19%	4.28%	4.80%
2015	3.26%	0.60%	2.14%		4.00%	4.12%	5.03%

[1] Note: Moody's has not published Aaa utility bond yields since 2001.

Sources: Council of Economic Advisors, Economic Indicators; Moody's Bond Record; Federal Reserve Bulletin; various issues.

INTEREST RATES

	Prime Rate	US Treasury T Bills 3 Month	US Treasury T Bonds 10 Year	Utility Bonds Aaa [1]	Utility Bonds Aa	Utility Bonds A	Utility Bonds Baa
2010							
Jan	3.25%	0.06%	3.73%		5.55%	5.77%	6.16%
Feb	3.25%	0.10%	3.69%		5.69%	5.87%	6.25%
Mar	3.25%	0.15%	3.73%		5.64%	5.84%	6.22%
Apr	3.25%	0.15%	3.85%		5.62%	5.81%	6.19%
May	3.25%	0.16%	3.42%		5.29%	5.50%	5.97%
June	3.25%	0.12%	3.20%		5.22%	5.46%	6.18%
July	3.25%	0.16%	3.01%		4.99%	5.26%	5.98%
Aug	3.25%	0.15%	2.70%		4.75%	5.01%	5.55%
Sept	3.25%	0.15%	2.65%		4.74%	5.01%	5.53%
Oct	3.25%	0.13%	2.54%		4.89%	5.10%	5.62%
Nov	3.25%	0.13%	2.76%		5.12%	5.37%	5.85%
Dec	3.25%	0.15%	3.29%		5.32%	5.56%	6.04%
2011							
Jan	3.25%	0.15%	3.39%		5.29%	5.57%	6.06%
Feb	3.25%	0.14%	3.58%		5.42%	5.68%	6.10%
Mar	3.25%	0.11%	3.41%		5.33%	5.56%	5.97%
Apr	3.25%	0.06%	3.46%		5.32%	5.55%	5.98%
May	3.25%	0.04%	3.17%		5.08%	5.32%	5.74%
June	3.25%	0.04%	3.00%		5.04%	5.26%	5.67%
July	3.25%	0.03%	3.00%		5.05%	5.27%	5.70%
Aug	3.25%	0.05%	2.30%		4.44%	4.69%	5.22%
Sept	3.25%	0.02%	1.98%		4.24%	4.48%	5.11%
Oct	3.25%	0.02%	2.15%		4.21%	4.52%	5.24%
Nov	3.25%	0.01%	2.01%		3.92%	4.25%	4.93%
Dec	3.25%	0.02%	1.98%		4.00%	4.33%	5.07%
2012							
Jan	3.25%	0.02%	1.97%		4.03%	4.34%	5.06%
Feb	3.25%	0.08%	1.97%		4.02%	4.36%	5.02%
Mar	3.25%	0.09%	2.17%		4.16%	4.48%	5.13%
Apr	3.25%	0.08%	2.05%		4.10%	4.40%	5.11%
May	3.25%	0.09%	1.80%		3.92%	4.20%	4.97%
June	3.25%	0.09%	1.62%		3.79%	4.08%	4.91%
July	3.25%	0.10%	1.53%		3.58%	3.93%	4.85%
Aug	3.25%	0.11%	1.68%		3.65%	4.00%	4.88%
Sept	3.25%	0.10%	1.72%		3.69%	4.02%	4.81%
Oct	3.25%	0.10%	1.75%		3.68%	3.91%	4.54%
Nov	3.25%	0.11%	1.65%		3.60%	3.84%	4.42%
Dec	3.25%	0.08%	1.72%		3.75%	4.00%	4.56%
2013							
Jan	3.25%	0.07%	1.91%		3.90%	4.15%	4.66%
Feb	3.25%	0.10%	1.98%		3.95%	4.18%	4.74%
Mar	3.25%	0.09%	1.96%		3.90%	4.15%	4.66%
Apr	3.25%	0.06%	1.76%		3.74%	4.00%	4.49%
May	3.25%	0.05%	1.93%		3.91%	4.17%	4.65%
June	3.25%	0.05%	2.30%		4.27%	4.53%	5.08%
July	3.25%	0.04%	2.58%		4.44%	4.68%	5.21%
Aug	3.25%	0.04%	2.74%		4.53%	4.73%	5.28%
Sept	3.25%	0.02%	2.81%		4.58%	4.80%	5.31%
Oct	3.25%	0.06%	2.62%		4.48%	4.70%	5.17%
Nov	3.25%	0.07%	2.72%		4.56%	4.77%	5.24%
Dec	3.25%	0.07%	2.90%		4.59%	4.81%	5.25%
2014							
Jan	3.25%	0.05%	2.86%		4.44%	4.63%	5.09%
Feb	3.25%	0.06%	2.71%		4.38%	4.53%	5.01%
Mar	3.25%	0.05%	2.72%		4.40%	4.51%	5.00%
Apr	3.25%	0.04%	2.71%		4.30%	4.41%	4.85%
May	3.25%	0.03%	2.56%		4.16%	4.26%	4.69%
June	3.25%	0.03%	2.60%		4.23%	4.29%	4.73%
July	3.25%	0.03%	2.54%		4.16%	4.23%	4.66%
Aug	3.25%	0.03%	2.42%		4.07%	4.13%	4.65%
Sept	3.25%	0.02%	2.53%		4.18%	4.24%	4.79%
Oct	3.25%	0.02%	2.30%		3.95%	4.06%	4.67%
Nov	3.25%	0.02%	2.33%		4.03%	4.09%	4.75%
Dec	3.25%	0.04%	2.21%		3.90%	3.95%	4.70%
2015							
Jan	3.25%	0.03%	1.88%		3.52%	3.58%	4.39%
Feb	3.25%	0.02%	1.98%		3.62%	3.67%	4.44%
Mar	3.25%	0.02%	2.04%		3.67%	3.74%	4.51%
Apr	3.25%	0.03%	1.94%		3.63%	3.75%	4.51%
May	3.25%	0.02%	2.20%		4.05%	4.17%	4.91%
June	3.25%	0.02%	2.36%		4.29%	4.39%	5.13%
July	3.25%	0.03%	2.32%		4.27%	4.40%	5.22%
Aug	3.25%	0.09%	2.17%		4.13%	4.25%	5.23%
Sept	3.25%	0.06%	2.17%		4.25%	4.39%	5.42%
Oct	3.25%	0.01%	2.07%		4.13%	4.29%	5.47%
Nov	3.25%	0.13%	2.26%		4.22%	4.40%	5.57%
Dec	3.50%	0.20%	2.24%		4.16%	4.35%	5.55%
2016							
Jan	3.50%	0.26%	2.09%				

Sources: Council of Economic Advisors, Economic Indicators; Moody's Bond Record; Federal Reserve Bulletin; various issues.

STOCK PRICE INDICATORS

	S&P Composite [1]	NASDAQ Composite [1]	DJIA	S&P D/P	S&P E/P
		1975 - 1982 Cycle			
1975			802.49	4.31%	9.15%
1976			974.92	3.77%	8.90%
1977			894.63	4.62%	10.79%
1978			820.23	5.28%	12.03%
1979			844.40	5.47%	13.46%
1980			891.41	5.26%	12.66%
1981			932.92	5.20%	11.96%
1982			884.36	5.81%	11.60%
		1983 - 1991 Cycle			
1983			1,190.34	4.40%	8.03%
1984			1,178.48	4.64%	10.02%
1985			1,328.23	4.25%	8.12%
1986			1,792.76	3.49%	6.09%
1987			2,275.99	3.08%	5.48%
1988	[1]	[1]	2,060.82	3.64%	8.01%
1989	322.84		2,508.91	3.45%	7.41%
1990	334.59		2,678.94	3.61%	6.47%
1991	376.18	491.69	2,929.33	3.24%	4.79%
		1992 - 2001 Cycle			
1992	415.74	$599.26	3,284.29	2.99%	4.22%
1993	451.21	715.16	3,522.06	2.78%	4.46%
1994	460.42	751.65	3,793.77	2.82%	5.83%
1995	541.72	925.19	4,493.76	2.56%	6.09%
1996	670.50	1,164.96	5,742.89	2.19%	5.24%
1997	873.43	1,469.49	7,441.15	1.77%	4.57%
1998	1,085.50	1,794.91	8,625.52	1.49%	3.46%
1999	1,327.33	2,728.15	10,464.88	1.25%	3.17%
2000	1,427.22	2,783.67	10,734.90	1.15%	3.63%
2001	1,194.18	2,035.00	10,189.13	1.32%	2.95%
		2002 - 2009 Cycle			
2002	993.94	1,539.73	9,226.43	1.61%	2.92%
2003	965.23	1,647.17	8,993.59	1.77%	3.84%
2004	1,130.65	1,986.53	10,317.39	1.72%	4.89%
2005	1,207.23	2,099.32	10,547.67	1.83%	5.36%
2006	1,310.46	2,263.41	11,408.67	1.87%	5.78%
2007	1,477.19	2,578.47	13,169.98	1.86%	5.29%
2008	1,220.04	2,161.65	11,252.62	2.37%	3.54%
2009	948.05	1,845.38	8,876.15	2.40%	1.86%
		Current Cycle			
2010	1,139.97	2,349.89	10,662.80	1.98%	6.04%
2011	1,268.89	2,677.44	11,966.36	2.05%	6.77%
2012	1,379.35	2,965.56	12,967.08	2.24%	6.20%
2013	1,462.51	3,537.69	14,999.67	2.14%	5.57%
2014	1,930.67	4,374.31	16,773.99	2.04%	5.25%
2015	2,061.20	4,943.49	17,590.61	2.10%	

[1] Note: this source did not publish the S&P Composite prior to 1988 and the NASDAQ Composite prior to 1991.

Source: Council of Economic Advisors, Economic Indicators, various issues.

STOCK PRICE INDICATORS

	S&P Composite	NASDAQ Composite	DJIA	S&P D/P	S&P E/P
2004					
1st Qtr.	1,133.29	2,041.95	10,488.43	1.64%	4.62%
2nd Qtr.	1,122.87	1,984.13	10,289.04	1.71%	4.92%
3rd Qtr.	1,104.15	1,872.90	10,129.85	1.79%	5.18%
4th Qtr.	1,162.07	2,050.22	10,362.25	1.75%	4.83%
2005					
1st Qtr.	1,191.98	2,056.01	10,648.48	1.77%	5.11%
2nd Qtr.	1,181.65	2,012.24	10,382.35	1.85%	5.32%
3rd Qtr.	1,225.91	2,144.61	10,532.24	1.83%	5.42%
4th Qtr.	1,262.07	2,246.09	10,827.79	1.86%	5.60%
2006					
1st Qtr.	1,283.04	2,287.97	10,996.04	1.85%	5.61%
2nd Qtr.	1,281.77	2,240.46	11,188.84	1.90%	5.86%
3rd Qtr.	1,288.40	2,141.97	11,274.49	1.91%	5.88%
4th Qtr.	1,389.48	2,390.26	12,175.30	1.81%	5.75%
2007					
1st Qtr.	1,425.30	2,444.85	12,470.97	1.84%	5.85%
2nd Qtr.	1,496.43	2,552.37	13,214.26	1.82%	5.65%
3rd Qtr.	1,490.81	2,609.68	13,488.43	1.86%	5.15%
4th Qtr.	1,494.09	2,701.59	13,502.95	1.91%	4.51%
2008					
1st Qtr.	1,350.19	2,332.91	12,383.86	2.11%	4.55%
2nd Qtr.	1,371.65	2,426.26	12,508.59	2.10%	4.05%
3rd Qtr.	1,251.94	2,290.87	11,322.40	2.29%	3.94%
4th Qtr.	909.80	1,599.64	8,795.61	2.98%	1.65%
2009					
1st Qtr.	809.31	1,485.14	7,774.06	3.00%	0.86%
2nd Qtr.	892.23	1,731.41	8,327.83	2.45%	0.82%
3rd Qtr.	996.68	1,985.25	9,229.93	2.16%	1.19%
4th Qtr.	1,088.70	2,162.33	10,172.78	1.99%	4.57%
2010					
1st Qtr.	1,121.60	2,274.88	10,454.42	1.94%	5.21%
2nd Qtr.	1,135.25	2,343.40	10,570.54	1.97%	6.51%
3rd Qtr.	1,096.39	2,237.97	10,390.24	2.09%	6.30%
4th Qtr.	1,204.00	2,534.62	11,236.02	1.95%	6.15%
2011					
1st Qtr.	1,302.74	2,741.01	12,024.62	1.85%	6.13%
2nd Qtr.	1,319.04	2,766.64	12,370.73	1.97%	6.35%
3rd Qtr.	1,237.12	2,613.11	11,671.47	2.15%	7.69%
4th Qtr.	1,225.65	2,600.91	11,798.65	2.25%	6.91%
2012					
1st Qtr.	1,347.44	2,902.90	12,839.80	2.12%	6.29%
2nd Qtr.	1,350.39	2,928.62	12,765.58	2.30%	6.45%
3rd Qtr.	1,402.21	3,029.86	13,118.72	2.27%	6.00%
4th Qtr.	1,418.21	3,001.69	13,142.91	2.28%	6.07%
2013					
1st Qtr.	1,514.41	3,177.10	14,000.30	2.21%	5.59%
2nd Qtr.	1,609.77	3,369.49	14,961.28	2.15%	5.66%
3rd Qtr.	1,675.31	3,643.63	15,255.25	2.14%	5.61%
4th Qtr.	1,770.45	3,960.54	15,751.96	2.06%	5.42%
2014					
1st Qtr.	1,834.30	4,210.05	16,170.26	2.04%	5.38%
2nd Qtr.	1,900.37	4,195.81	16,603.50	2.06%	5.26%
3rd Qtr.	1,975.95	4,483.51	16,953.85	2.02%	5.38%
4th Qtr.	2,012.04	4,607.88	17,368.36	2.03%	4.97%
2015					
1st Qtr.	2,063.46	4,821.99	17,806.47	2.02%	4.80%
2nd Qtr.	2,094.37	5,029.47	18,007.48	2.05%	4.60%
3rd Qtr.	2,026.14	4,921.81	17,065.52	2.16%	4.72%
4th Qtr.	2,053.17	5,000.70	17,482.97	2.16%	

Source: Council of Economic Advisors, Economic Indicators, various issues.

ARIZONA WATER COMPANY
CAPITAL STRUCTURE RATIOS
2010 - 2014
($000)

YEAR	COMMON EQUITY	LONG-TERM DEBT	SHORT-TERM DEBT
2010	$77,975	$75,000	$0
	51.0%	49.0%	0.0%
	51.0%	49.0%	
2011	$78,221	$75,000	$0
	51.1%	48.9%	0.0%
	51.1%	48.9%	
2012	$77,478	$75,000	$0
	50.8%	49.2%	0.0%
	50.8%	49.2%	
2013	$83,285	$75,000	$0
	52.6%	47.4%	30.0%
	52.6%	47.4%	
2014	$86,959	$75,000	$0
	53.7%	46.3%	10.0%
	53.7%	46.3%	

Note: Percentages may not total 100.0% due to rounding.

Source: Response to DCP 3.3.

Exhibit DCP-4
Schedule 4

AUS UTILITY REPORTS
WATER UTILITY GROUP
AVERAGE COMMON EQUITY RATIOS

Year	Common Equity Ratio
2011	47.3%
2012	48.9%
2013	51.9%
2014	52.6%
2015	52.3%
Average	**50.6%**

Note: Averages include short-term debt.

Source: AUS Utility Reports.

Exhibit DCP-5
Schedule 5

PROXY COMPANIES
COMMON EQUITY RATIOS

	2011	2012	2013	2014	2015	2011-15 Average	Est'd 2018-20
Value Line Water Group							
American States Water Co.	54.6%	57.8%	60.2%	60.9%	59.5%	58.6%	58.0%
American Water Works	44.2%	46.1%	47.6%	47.4%	46.5%	46.4%	47.0%
Aqua America Inc.	47.3%	47.3%	51.1%	51.5%	50.5%	49.5%	50.0%
Artesian Resources	51.5%	52.7%	53.6%	54.5%		52.6%	
California Water Service Group	48.3%	52.2%	58.4%	59.5%	60.0%	55.7%	58.5%
Connecticut Water Service, Inc.	46.5%	50.8%	52.9%	54.1%	56.0%	52.1%	53.0%
Middlesex Water	56.6%	57.4%	58.7%	58.8%	59.5%	58.2%	56.5%
SJW Corporation	43.4%	45.0%	48.9%	48.4%	49.0%	46.9%	47.5%
York Water Company	52.9%	54.0%	54.9%	55.2%	55.0%	54.4%	52.0%
Average						52.7%	52.8%
Median						52.6%	52.5%

Note: Common equity ratios exclude short-term debt.

Source: Value Line Investment Survey.

Exhibit DCP-6
Schedule 6

PROXY COMPANIES

Company	Market Capitalization ($ thousands)	Percent Reg Water Revenues	Common Equity Ratio	Value Line Safety	S&P Stock Ranking	S&P Bond Rating
Value Line Water Group						
American States Water Co.	$1,500,000	72%	58.0%	2	A	A+
American Water Works	$10,800,000	87%	44.8%	3	NR	A+/A
Aqua America Inc.	$5,200,000	95%	49.6%	2	A+	AA-
Artesian Resources	$238,966	94%	52.2%	3	A-	NR
California Water Service Group	$1,100,000	98%	53.4%	3	A-	AA-
Connecticut Water Service, Inc.	$425,000	100%	53.9%	3	A-	A/A-
Middlesex Water	$425,000	86%	55.9%	2	A-	A
SJW Corporation	$600,000	95%	47.8%	3	B	A
York Water Company	$325,000	100%	55.1%	3	A	A-

Sources: AUS Utility Reports, Value Line.

PROXY COMPANIES
DIVIDEND YIELD

COMPANY	Qtr DPS	November 2015 - January 2016 DPS	HIGH	LOW	AVERAGE	YIELD
Value Line Water Group						
American States Water Co.	$0.224	$0.90	$45.47	$39.16	$42.32	2.1%
American Water Works	$0.340	$1.36	$65.04	$55.13	$60.09	2.3%
Aqua America Inc.	$0.178	$0.71	$31.53	$28.05	$29.79	2.4%
Artesian Resources	$0.222	$0.89	$30.34	$23.80	$27.07	3.3%
California Water Service Group	$0.168	$0.67	$25.14	$21.01	$23.08	2.9%
Connecticut Water Service, Inc.	$0.268	$1.07	$43.12	$34.15	$38.64	2.8%
Middlesex Water	$0.199	$0.80	$29.01	$24.01	$26.51	3.0%
SJW Corporation	$0.195	$0.78	$32.63	$27.60	$30.12	2.6%
York Water Company	$0.156	$0.62	$26.67	$22.18	$24.43	2.6%
Average						**2.7%**

Source: Yahoo! Finance.

PROXY COMPANIES
RETENTION GROWTH RATES

COMPANY	2011	2012	2013	2014	2015	Average	2016	2018-'20	Average
Value Line Water Group									
American States Water Co.	5.3%	6.6%	6.8%	5.7%	5.5%	6.0%	5.5%	6.5%	6.0%
American Water Works	3.5%	3.6%	4.7%	4.3%	4.5%	4.1%	4.5%	4.0%	4.3%
Aqua America Inc.	4.6%	4.3%	6.7%	6.1%	5.5%	5.4%	6.0%	5.5%	5.8%
Artesian Resources	0.5%	2.5%	0.9%	1.6%		1.4%			
California Water Service Group	2.3%	3.4%	3.4%	4.1%	2.5%	3.1%	4.0%	3.5%	3.8%
Connecticut Water Service, Inc.	1.4%	2.8%	3.8%	4.8%	5.0%	3.6%	5.0%	4.0%	4.5%
Middlesex Water	1.0%	1.4%	2.4%	3.1%	4.0%	2.4%	4.0%	3.5%	3.8%
SJW Corporation	3.1%	3.3%	2.8%	10.2%	3.0%	4.5%	4.0%	3.0%	3.5%
York Water Company	2.5%	2.4%	2.4%	3.9%	4.0%	3.0%	4.5%	3.5%	4.0%
Average						**3.7%**			**4.4%**

Source: Value Line Investment Survey.

PROXY COMPANIES
PER SHARE GROWTH RATES

COMPANY	5-Year Historic Growth Rates				Est'd '12-'14 to '18-'20 Growth Rates			
	EPS	DPS	BVPS	Average	EPS	DPS	BVPS	Average
Value Line Water Group								
American States Water Co.	14.0%	8.5%	6.5%	9.7%	6.0%	7.5%	3.0%	5.5%
American Water Works					7.0%	8.5%	5.5%	7.0%
Aqua America Inc.	13.0%	7.0%	6.5%	8.8%	7.5%	9.5%	5.5%	7.5%
Artesian Resources	3.0%	3.5%	3.0%	3.2%				
California Water Service Group	4.0%	2.0%	5.0%	3.7%	6.5%	7.0%	4.5%	6.0%
Connecticut Water Service, Inc.	9.0%	2.0%	9.5%	6.8%	4.5%	5.0%	3.5%	4.3%
Middlesex Water	4.5%	1.5%	3.0%	3.0%	5.0%	3.0%	3.0%	3.7%
SJW Corporation	10.5%	3.0%	3.5%	5.7%	1.5%	6.0%	6.0%	4.5%
York Water Company	6.0%	2.5%	4.5%	4.3%	6.5%	6.5%	3.0%	5.3%
Average				**5.6%**				**5.5%**

Source: Value Line Investment Survey.

PROXY COMPANIES
DCF COST RATES

COMPANY	ADJUSTED YIELD	HISTORIC RETENTION GROWTH	PROSPECTIVE RETENTION GROWTH	HISTORIC PER SHARE GROWTH	PROSPECTIVE PER SHARE GROWTH	FIRST CALL EPS GROWTH	AVERAGE GROWTH	DCF RATES
Value Line Water Group								
American States Water Co.	2.2%	6.0%	6.0%	9.7%	5.5%	4.1%	6.2%	8.4%
American Water Works	2.3%	4.1%	4.3%		7.0%	7.7%	5.8%	8.1%
Aqua America Inc.	2.5%	5.4%	5.8%	8.8%	7.5%	5.9%	6.7%	9.1%
Artesian Resources	3.3%	1.4%		3.2%		4.0%	2.8%	6.2%
California Water Service Group	3.0%	3.1%	3.8%	3.7%	6.0%	5.0%	4.3%	7.3%
Connecticut Water Service, Inc.	2.8%	3.6%	4.5%	6.8%	4.3%	5.0%	4.8%	7.7%
Middlesex Water	3.0%	2.4%	3.8%	3.0%	3.7%	2.7%	3.1%	6.1%
SJW Corporation	2.7%	4.5%	3.5%	5.7%	4.5%	14.0%	6.4%	9.1%
York Water Company	2.6%	3.0%	4.0%	4.3%	5.3%	4.9%	4.3%	6.9%
Mean	2.7%	3.7%	4.4%	5.6%	5.5%	5.9%	5.0%	**7.7%**
Median	2.7%	3.6%	4.1%	5.0%	5.4%	5.0%	4.8%	**7.7%**
Composite - Mean		**6.4%**	7.2%	8.4%	8.2%	**8.6%**	7.7%	
Composite - Median		**6.2%**	6.8%	7.7%	**8.1%**	7.7%	7.5%	

Note: negative values not used in calculations.

Sources: Prior pages of this schedule.

Exhibit DCP-8
Schedule 8

STANDARD & POOR'S 500 COMPOSITE
20-YEAR U.S. TREASURY BOND YIELDS
RISK PREMIUMS

Year	EPS	BVPS	ROE	20-YEAR T-BOND INCOME	RISK PREMIUM
1977		$79.07			
1978	$12.33	$85.35	15.00%	7.90%	7.10%
1979	$14.86	$94.27	16.55%	8.86%	7.69%
1980	$14.82	$102.48	15.06%	9.97%	5.09%
1981	$15.36	$109.43	14.50%	11.55%	2.95%
1982	$12.64	$112.46	11.39%	13.50%	-2.11%
1983	$14.03	$116.93	12.23%	10.38%	1.85%
1984	$16.64	$122.47	13.90%	11.74%	2.16%
1985	$14.61	$125.20	11.80%	11.25%	0.55%
1986	$14.48	$126.82	11.49%	8.98%	2.51%
1987	$17.50	$134.07	13.42%	7.92%	5.50%
1988	$23.75	$141.32	17.25%	8.97%	8.28%
1989	$22.87	$147.26	15.85%	8.81%	7.04%
1990	$21.73	$153.01	14.47%	8.19%	6.28%
1991	$16.29	$158.85	10.45%	8.22%	2.23%
1992	$18.86	$149.74	12.22%	7.29%	4.93%
1993	$21.89	$180.88	13.24%	7.17%	6.07%
1994	$30.60	$193.06	16.37%	6.59%	9.78%
1995	$33.96	$216.51	16.58%	7.60%	8.98%
1996	$38.73	$237.08	17.08%	6.18%	10.90%
1997	$39.72	$249.52	16.33%	6.64%	9.69%
1998	$37.71	$266.40	14.62%	5.83%	8.79%
1999	$48.17	$290.68	17.29%	5.57%	11.72%
2000	$50.00	$325.80	16.22%	6.50%	9.72%
2001	$24.70	$338.37	7.44%	5.53%	1.91%
2002	$27.59	$321.72	8.36%	5.59%	2.77%
2003	$48.73	$367.17	14.15%	4.80%	9.35%
2004	$58.55	$414.75	14.98%	5.02%	9.96%
2005	$69.93	$453.06	16.12%	4.69%	11.43%
2006	$81.51	$504.39	17.03%	4.68%	12.35%
2007	$66.17	$529.59	12.80%	4.86%	7.94%
2008	$14.88	$451.37	3.03%	4.45%	-1.42%
2009	$50.97	$513.58	10.56%	3.47%	7.09%
2010	$77.35	$579.14	14.16%	4.25%	9.91%
2011	$86.95	$613.14	14.59%	3.81%	10.78%
2012	$86.51	$666.97	13.52%	2.40%	11.12%
2013	$100.20	$715.84	14.49%	2.86%	11.63%
2014	$102.31	$726.96	14.18%	3.33%	10.85%
Average					**6.85%**

Source: Standard & Poor's Analysts' Handbook, Ibbotson Associates Handbook.

Exhibit DCP-9
Schedule 9

PROXY COMPANIES
CAPM COST RATES

COMPANY	RISK-FREE RATE	BETA	RISK PREMIUM	CAPM RATES
Value Line Water Group				
American States Water Co.	2.60%	0.70	5.75%	6.6%
American Water Works	2.60%	0.70	5.75%	6.6%
Aqua America Inc.	2.60%	0.75	5.75%	6.9%
Artesian Resources	2.60%	0.55	5.75%	5.8%
California Water Service Group	2.60%	0.75	5.75%	6.9%
Connecticut Water Service, Inc.	2.60%	0.65	5.75%	6.3%
Middlesex Water	2.60%	0.70	5.75%	6.6%
SJW Corporation	2.60%	0.75	5.75%	6.9%
York Water Company	2.60%	0.75	5.75%	6.9%
Mean				**6.6%**
Median				**6.6%**

Sources: Value Line Investment Survey, Standard & Poor's Analysts' Handbook, Federal Reserve.

20-year Treasury Bonds

Month	Rate
Nov. 2015	2.69%
Dec., 2015	2.61%
Jan. , 2016	2.49%
Average	2.60%

PROXY COMPANIES
RATES OF RETURN ON AVERAGE COMMON EQUITY

COMPANY	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2002-2008 Average	2009-2015 Average	2016	2018-20
Value Line Water Group																		
American States Water Co.	9.6%	5.6%	8.0%	10.4%	8.2%	9.3%	7.2%	8.8%	9.0%	11.7%	12.5%	13.2%	12.2%	12.7%	8.3%	11.4%	12.5%	14.5%
American Water Works									9.6%	15.8%	8.2%	8.1%	8.8%	9.3%		10.0%	9.0%	9.0%
Aqua America Inc.	13.9%	12.3%	11.4%	11.5%	11.0%	10.0%	9.6%	9.6%	10.9%	11.8%	14.9%	15.2%	14.6%	14.4%	11.4%	13.1%	13.5%	14.0%
Artesian Resources	9.6%	7.4%	7.6%	8.9%	10.2%	8.5%	7.4%	8.1%	8.2%	6.5%	8.5%	6.9%	7.7%	9.2%	8.5%	7.9%		
California Water Service Group	9.6%	8.7%	9.8%	9.3%	7.6%	4.9%	10.1%	7.4%	8.8%	8.5%	10.6%	8.8%	9.3%	7.6%	8.6%	8.7%	9.0%	9.5%
Connecticut Water Service, Inc.	11.6%	11.2%	11.4%	12.0%	7.5%	8.9%	9.2%	9.7%	8.8%	9.7%	9.1%	9.7%	10.4%	10.5%	10.3%	9.7%	10.0%	9.5%
Middlesex Water	9.8%	8.2%	8.3%	8.4%	8.6%	8.8%	8.8%	7.0%	9.0%	7.6%	7.9%	8.9%	9.5%	9.5%	8.7%	8.5%	10.0%	9.5%
SJW Corporation	9.4%	9.8%	11.3%	11.5%	18.2%	8.3%	11.2%	6.0%	9.6%	8.0%	8.3%	7.5%	15.2%	7.5%	11.4%	8.9%	8.0%	7.5%
York Water Company	16.7%	11.7%	12.2%	11.8%	10.5%	9.7%	9.4%	9.6%	10.0%	9.7%	9.5%	9.5%	11.0%	11.9%	11.7%	10.2%	12.0%	12.0%
Average	11.3%	9.4%	10.0%	10.5%	10.2%	8.6%	9.1%	8.3%	9.3%	9.9%	9.9%	9.8%	11.0%	10.3%	**9.9%**	**9.8%**	**10.5%**	**10.7%**
Median	9.7%	9.3%	10.6%	11.0%	9.4%	8.9%	9.3%	8.5%	9.0%	9.7%	9.1%	8.9%	10.4%	9.5%	**9.7%**	**9.3%**	**10.0%**	**9.5%**

Source: AUS Utility Report, Value Line.

PROXY COMPANIES
MARKET TO BOOK RATIOS

COMPANY	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2002-2008 Average	2009-2015 Average
Value Line Water Group																
American States Water Co.	176%	178%	181%	230%	205%	219%	210%	189%	167%	162%	234%	244%	295%	324%	200%	231%
American Water Works								90%	117%	138%	166%	172%	196%	206%		155%
Aqua America Inc.	304%	280%	321%	436%	332%	259%	238%	221%	264%	243%	332%	292%	285%	308%	310%	278%
Artesian Resources	159%	207%	214%	215%	198%	150%	117%	150%	154%	131%	148%	147%	138%	161%	180%	147%
California Water Service Group	199%	189%	218%	264%	223%	219%	222%	190%	172%	163%	174%	182%	194%	174%	219%	178%
Connecticut Water Service, Inc.	275%	266%	233%	216%	211%	199%	173%	185%	194%	204%	173%	182%	189%	189%	225%	188%
Middlesex Water	225%	265%	214%	214%	178%	184%	141%	174%	162%	160%	168%	175%	187%	203%	203%	175%
SJW Corporation	199%	189%	218%	264%	307%	236%	175%	225%	167%	166%	174%	180%	163%	164%	227%	177%
York Water Company	277%	335%	275%	367%	309%	266%	190%	203%	235%	234%	233%	260%	285%	290%	288%	249%
Average	227%	239%	234%	276%	245%	217%	183%	181%	181%	178%	200%	204%	215%	224%	**232%**	**198%**
Median	212%	236%	218%	247%	217%	219%	183%	189%	167%	163%	174%	182%	194%	203%	**219%**	**182%**

Source: AUS Utility Report, Value Line.

Exhibit DCP-11
Schedule 11

STANDARD & POOR'S 500 COMPOSITE RETURNS AND MARKET-TO-BOOK RATIOS 2002 - 2014

YEAR	RETURN ON AVERAGE EQUITY	MARKET-TO BOOK RATIO
2002	8.4%	296%
2003	14.2%	278%
2004	15.0%	291%
2005	16.1%	278%
2006	17.0%	277%
2007	12.8%	284%
2008	3.0%	224%
2009	10.6%	187%
2010	14.2%	208%
2011	14.6%	208%
2012	13.5%	214%
2013	14.5%	237%
2014	14.2%	268%
Averages:		
2002-2008	**12.4%**	**275%**
2009-2014	**13.6%**	**220%**

Source: Standard & Poor's Analyst's Handbook, 2015 edition.

RISK INDICATORS

COMPANY	VALUE LINE SAFETY	VALUE LINE BETA	VALUE LINE FINANCIAL STRENGTH		S& P STOCK RANKING	
Value Line Water Group						
American States Water Co.	2	0.70	A	4.00	A	4.00
American Water Works	3	0.70	B+	3.33	NR	
Aqua America Inc.	2	0.75	A	4.00	A+	4.33
Artesian Resources	3	0.55	B	3.00	A-	3.67
California Water Service Group	3	0.75	B++	3.67	A-	3.67
Connecticut Water Service, Inc.	3	0.65	B+	3.33	A-	3.67
Middlesex Water	2	0.70	B++	3.67	A-	3.67
SJW Corporation	3	0.75	B+	3.33	B	3.00
York Water Company	2	0.75	B+	3.33	A	4.00
	2.6	0.70	B+/B++	3.52	A-	3.75

Schedule 13

PROXY COMPANIES
SIZE AND RISK INDICATORS

Company	Market Capitalization ($ 000)	Common Equity Ratio	Value Line Safety	S&P Stock Ranking	S&P Bond Rating
Parcell Proxy Group					
Artesian Resources	$238,966	52.2%	3	A-	NR
York Water Company	$325,000	55.1%	3	A	A-
Middlesex Water	$425,000	55.9%	2	A-	A
Connecticut Water Service, Inc.	$425,000	53.9%	3	A-	A/A-
SJW Corporation	$600,000	47.8%	3	B	A
California Water Service, Inc.	$1,100,000	53.4%	3	A-	AA-
American States Water Co.	$1,500,000	58.0%	2	A	A+
Aqua America Inc.	$5,200,000	49.6%	2	A+	AA-
American Water Works	$10,800,000	44.8%	3	NR	A+/A

Sources: AUS Utility Reports, Value Line.

Exhibit DCP-14
Schedule 14

COMPARISON OF SIZE AND RISK INDICATORS FOR PUBLICLY-TRADED ELECTRIC UTILITIES

COMPANY	CAP ($000) Value Line	VALUE LINE SAFETY	VALUE LINE BETA	VALUE LINE FIN STR	S&P STOCK RANKING S&P	S&P BOND RATING AUS	MOODY'S BOND RATING AUS
Empire District Electric Company	975,000	2	0.70	B++	B+	A-	Baa1
Otter Tail Corp	975,000	3	0.90	B+	B	BBB-	Baa2
MGE Energy Inc.	1,300,000	1	0.75	A	A-	AA-	Aa2
El Paso Electric Co.	1,400,000	2	0.75	B++	B	BBB+	Baa1
Black Hills Corp.	1,800,000	2	0.95	B++	B	BBB	A3/Baa1
Average		**2.0**	**0.81**	**B++**	**B+**	**A-/BBB+**	**A3/Baa1**
Avista Corp.	2,000,000	2	0.80	A	A-	A-	Baa1
PNM Resources	2,000,000	3	0.85	B	B	BBB	Baa2
ALLETE	2,400,000	2	0.80	A	A-	A-	A3
NorthWestern	2,400,000	3	0.75	B+	A+	NR	A3
Portland General	2,700,000	2	0.80	B++	NR	A-	A3
UIL Holdings	2,700,000	2	0.75	B++	B+	BBB	Baa1/Baa2
IDACORP	2,900,000	2	0.80	B++	A	A-	A3
Hawaiian Electric Industries, Inc.	3,200,000	2	0.80	A	B+	BBB-	Baa2
Cleco Corp.	3,300,000	1	0.75	A	B	BBB/BBB-	Baa1/Baa2
Vectren	3,300,000	2	0.80	A	B+	A/A-	A2
Great Plains Energy Inc.	3,800,000	3	0.85	B+	B	BBB	Baa2
Westar Energy, Inc.	4,500,000	2	0.75	B++	A-	A-	A3/Baa1
Average		**2.2**	**0.79**	**B++**	**B+/A-**	**BBB+**	**Baa1**
ITC Holdings Corp.	5,100,000	2	0.70	B++	A+		
TECO Energy, Inc.	5,200,000	2	0.80	B++	B	BBB+/BBB	A3
Integrys Energy Group	5,500,000	2	0.80	A	B	A-	A3
OGE Energy Corp.	5,800,000	1	0.90	A+	A-	BBB+	A3
Alliant Energy	6,500,000	2	0.80	A	B+	A-	A2/A3
Pinnacle West Capital Corp.	6,600,000	1	0.70	A+	B+	BBB	A3/Baa1
Pepco Holdings, Inc.	6,800,000	3	0.65	B+	B	A-/BBB+	Baa2
SCANA Corp.	8,000,000	2	0.75	B++	A	BBB+	Baa1/Baa2
CenterPoint Energy, Inc.	8,300,000	2	0.80	B++	B	A-/BBB+	A3/Baa1
CMS Energy Corp.	8,800,000	2	0.75	B++	B	BBB+/BBB	A3/Baa1
Ameren Corp.	9,200,000	2	0.75	A	B	BBB+/BBB	Baa1
Average		**1.9**	**0.76**	**A/B++**	**B+**	**BBB+**	**A3/Baa1**
Wisconsin Energy Corp.	10,000,000	1	0.70	A+	A	A-/BBB+	A1/A2
DTE Energy Company	13,000,000	2	0.75	B++	A-	A-/BBB+	A2/A3
Entergy Corp.	13,000,000	3	0.70	B++	A-	BBB+/BBB	Baa2/Baa3
FirstEnergy Corp.	14,000,000	3	0.65	B+	B	BBB	Baa2
Eversource Energy	16,000,000	1	0.75	A	A-	A-	A3/Baa1
Xcel Energy Inc.	17,000,000	1	0.65	A	A-	A-	A3
Consolidated Edison, Inc.	19,000,000	1	0.60	A+	B+	A-/BBB+	A3
Edison International	19,000,000	2	0.75	A	B	BBB+	A2/A3
Average		**1.8**	**0.69**	**A/B++**	**A-/B+**	**A-/BBB+**	**A3/Baa1**
Public Service Enterprise Group, Inc.	21,000,000	1	0.75	A++	B+	A-/BBB+	A2
PPL Corp	22,000,000	2	0.65	B++	B+	A-	Baa1/Baa2
PG&E Corp.	24,000,000	3	0.65	B+	B	BBB/BBB-	A3/Baa1
Sempra Energy	25,000,000	2	0.80	A	B+	A/A-	A2/A3
American Electric Power Company	26,000,000	2	0.70	A	A-	BBB/BBB-	Baa1
Exelon Corp.	28,000,000	3	0.65	B++	B	BBB+/BBB	Baa1
Southern Company	42,000,000	2	0.55	A	A-	A	A3/Baa1
Dominion Resources	43,000,000	2	0.70	B++	B	A-	A3/Baa1
NextEra Energy, Inc.	47,000,000	2	0.70	A	A	A -/BBB+	A2/A3
Duke Energy Corp.	52,000,000	2	0.60	A	B	BBB+	A3
Average		**2.1**	**0.68**	**A/B++**	**B+**	**A-/BBB+**	**A3/Baa1**

Sources:

Value Line Investment Survey
East – August 21, 2015
Central – June 19, 2015
West – July 1, 2015

AUS Utility Reports, May, 2015

S&P Stock Guide, May, 2015

BACKGROUND AND EXPERIENCE PROFILE
DAVID C. PARCELL, MBA, CRRA
PRESIDENT/SENIOR ECONOMIST

EDUCATION

1985	M.B.A., Virginia Commonwealth University
1970	M.A., Economics, Virginia Polytechnic Institute and State University, (Virginia Tech)
1969	B.A., Economics, Virginia Polytechnic Institute and State University, (Virginia Tech)

POSITIONS

2007-Present	President, Technical Associates, Inc.
1995-2007	Executive Vice President and Senior Economist, Technical Associates, Inc.
1993-1995	Vice President and Senior Economist, C. W. Amos of Virginia
1972-1993	Vice President and Senior Economist, Technical Associates, Inc.
1969-1972	Research Economist, Technical Associates, Inc.
1968-1969	Research Associate, Department of Economics, Virginia Polytechnic Institute and State University

ACADEMIC HONORS

Omicron Delta Epsilon - Honor Society in Economics
Beta Gamma Sigma - National Scholastic Honor Society of Business Administration
Alpha Iota Delta - National Decision Sciences Honorary Society
Phi Kappa Phi - Scholastic Honor Society

PROFESSIONAL DESIGNATIONS

Certified Rate of Return Analyst - Founding Member

RELEVANT EXPERIENCE

Financial Economics -- Advised and assisted many Virginia banks and savings and loan associations on organizational and regulatory matters. Testified approximately 25 times before the Virginia State Corporation Commission and the Regional Administrator of National Banks on matters related to branching and organization for banks, savings and loan associations, and consumer finance companies. Advised financial institutions on interest rate structure and loan maturity. Testified before Virginia State Corporation Commission on maximum rates for consumer finance companies.

Testified before several committees and subcommittees of Virginia General Assembly on numerous banking matters.

Clients have included First National Bank of Rocky Mount, Patrick Henry National Bank, Peoples Bank of Danville, Blue Ridge Bank, Bank of Essex, and Signet Bank.

Published articles in law reviews and other periodicals on structure and regulation of banking/financial services industry.

Utility Economics -- Performed numerous financial studies of regulated public utilities. Testified in over 300 cases before some thirty state and federal regulatory agencies.

Prepared numerous rate of return studies incorporating cost of equity determination based on DCF, CAPM, comparable earnings and other models. Developed procedures for identifying differential risk characteristics by nuclear construction and other factors.

Conducted studies with respect to cost of service and indexing for determining utility rates, the development of annual review procedures for regulatory control of utilities, fuel and power plant cost recovery adjustment clauses, power supply agreements among affiliates, utility franchise fees, and use of short-term debt in capital structure.

Presented expert testimony before federal regulatory agencies Federal Energy Regulatory Commission, Federal Power Commission, and National Energy Board (Canada), state regulatory agencies in Alabama, Alaska, Arizona, Arkansas, California, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Kentucky, Maine, Maryland, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, Ohio, Oklahoma, Ontario (Canada), Pennsylvania, South Carolina, Texas, Utah, Vermont, Virginia, West Virginia, Washington, Wisconsin, and Yukon Territory (Canada).

Published articles in law reviews and other periodicals on the theory and purpose of regulation and other regulatory subjects.

Clients served include state regulatory agencies in Alaska, Arizona, Delaware, Missouri, North Carolina, Ontario (Canada), and Virginia; consumer advocates and attorneys general in Alabama, Arizona, District of Columbia, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Kentucky, Maryland, Nevada, New Mexico, Ohio, Oklahoma, Pennsylvania, South Carolina, Texas, Utah, Vermont, Virginia, and West Virginia; federal agencies including Defense Communications Agency, the Department of Energy, Department of the Navy, and General Services Administration; and various organizations such as Bath Iron Works, Illinois Citizens' Utility Board, Illinois Governor's Office of Consumer Services, Illinois Small Business Utility Advocate, Wisconsin's Environmental Decade, Wisconsin's Citizens Utility Board, and Old Dominion Electric Cooperative.

Insurance Economics -- Conducted analyses of the relationship between the investment income earned by insurance companies on their portfolios and the premiums charged for insurance. Analyzed impact of diversification on financial strength of Blue Cross/Blue Shield Plans in Virginia.

Conducted studies of profitability and cost of capital for property/casualty insurance industry. Evaluated risk of and required return on surplus for various lines of insurance business.

Presented expert testimony before Virginia State Corporation Commission concerning cost of capital and expected gains from investment portfolio. Testified before insurance bureaus of Maine, New Jersey, North Carolina, Rhode Island, South Carolina and Vermont concerning cost of equity for insurance companies.

Prepared cost of capital and investment income return analyses for numerous insurance companies concerning several lines of insurance business. Analyses used by Virginia Bureau of Insurance for purposes of setting rates.

Special Studies -- Conducted analyses which evaluated the financial and economic implications of legislative and administrative changes. Subject matter of analyses include returnable bottles, retail beer sales, wine sales regulations, taxi-cab taxation, and bank regulation. Testified before several Virginia General Assembly subcommittees.

Testified before Virginia ABC Commission concerning economic impact of mixed beverage license.
Clients include Virginia Beer Wholesalers, Wine Institute, Virginia Retail Merchants Association, and Virginia Taxicab Association.

Franchise, Merger & Anti-Trust Economics -- Conducted studies on competitive impact on market structures due to joint ventures, mergers, franchising and other business restructuring. Analyzed the costs and benefits to parties involved in mergers. Testified in federal courts and before banking and other regulatory bodies concerning the structure and performance of markets, as well as on the impact of restrictive practices.

Clients served include Dominion Bankshares, asphalt contractors, and law firms.

Transportation Economics -- Conducted cost of capital studies to assess profitability of oil pipelines, trucks, taxicabs and railroads. Analyses have been presented before the Federal Energy Regulatory Commission and Alaska Pipeline Commission in rate proceedings. Served as a consultant to the Rail Services Planning Office on the reorganization of rail services in the U.S.
Economic Loss Analyses -- Testified in federal courts, state courts, and other adjudicative forums regarding the economic loss sustained through personal and business injury whether due to bodily harm, discrimination, non-performance, or anticompetitive practices. Testified on economic loss to a commercial bank resulting from publication of adverse information

concerning solvency. Testimony has been presented on behalf of private individuals and business firms.

MEMBERSHIPS

American Economic Association
Virginia Association of Economists
Richmond Society of Financial Analysts
Financial Analysts Federation
Society of Utility and Regulatory Financial Analysts

Board of Directors	1992-2000
Secretary/Treasurer	1994-1998
President	1998-2000

RESEARCH ACTIVITY

Books and Major Research Reports

"Stock Price As An Indicator of Performance," Master of Arts Thesis, Virginia Tech, 1970

"Revision of the Property and Casualty Insurance Ratemaking Process Under Prior Approval in the Commonwealth of Virginia," prepared for the Bureau of Insurance of the Virginia State Corporation Commission, with Charles Schotta and Michael J. Ileo, 1971

"An analysis of the Virginia Consumer Finance Industry to Determine the Need for Restructuring the Rate and Size Ceilings on Small Loans in Virginia and the Process by which They are Governed," prepared for the Virginia Consumer Finance Association, with Michael J. Ileo, 1973

State Banks and the State Corporation Commission: A Historical Review, Technical Associates, Inc., 1974

"A Study of the Implications of the Sale of Wine by the Virginia Department of Alcoholic Beverage Control", prepared for the Virginia Wine Wholesalers Association, Virginia Retail Merchants Association, Virginia Food Dealers Association, Virginia Association of Chain Drugstores, Southland Corporation, and the Wine Institute, 1983.

"Performance and Diversification of the Blue Cross/Blue Shield Plans in Virginia: An Operational Review", prepared for the Bureau of Insurance of the Virginia State Corporation Commission, with Michael J. Ileo and Alexander F. Skirpan, 1988.

The Cost of Capital - A Practitioners' Guide, Society of Utility and Regulatory Financial

Analysts, 1997 (previous editions in 1991, 1992, 1993, 1994, and 1995).

Papers Presented and Articles Published

"The Differential Effect of Bank Structure on the Transmission of Open Market Operations," Western Economic Association Meeting, with Charles Schotta, 1971

"The Economic Objectives of Regulation: The Trend in Virginia," (with Michael J. Ileo), William and Mary Law Review, Vol. 14, No. 2, 1973

"Evolution of the Virginia Banking Structure, 1962-1974: The Effects of the Buck-Holland Bill", (with Michael J. Ileo), William and Mary Law Review, Vol. 16, No. 3, 1975

"Banking Structure and Statewide Branching: The Potential for Virginia", William and Mary Law Review, Vol. 18, No. 1, 1976

"Bank Expansion and Electronic Banking: Virginia Banking Structure Changes Past, Present, and Future," William and Mary Business Review," Vol. 1, No. 2, 1976

"Electronic Banking - Wave of the Future?" (with James R. Marchand), Journal of Management and Business Consulting, Vol. 1, No. 1, 1976

"The Pricing of Electricity" (with James R. Marchand), Journal of Management and Business Consulting, Vol. 1, No. 2, 1976

"The Public Interest - Bank and Savings and Loan Expansion in Virginia" (with Richard D. Rogers), University of Richmond Law Review, Vol. 11, No. 3, 1977

"When Is It In the 'Public Interest' to Authorize a New Bank?", University of Richmond Law Review, Vol. 13, No. 3, 1979

"Banking Deregulation and Its Implications on the Virginia Banking Structure," William and Mary Business Review, Vol. 5, No. 1, 1983

"The Impact of Reciprocal Interstate Banking Statutes on The Performance of Virginia Bank Stocks", with William B. Harrison, Virginia Social Science Journal, Vol. 23, 1988

"The Financial Performance of New Banks in Virginia", Virginia Social Science Journal, Vol. 24, 1989

"Identifying and Managing Community Bank Performance After Deregulation", with William B. Harrison, Journal of Managerial Issues, Vol. II, No. 2, Summer 1990

"The Flotation Cost Adjustment To Utility Cost of Common Equity - Theory, Measurement and Implementation," presented at Twenty-Fifth Financial Forum, National Society of Rate of Return Analysts, Philadelphia, Pennsylvania, April 28, 1993.

Biography of Myon Edison Bristow, Dictionary of Virginia Biography, Volume 2, 2001.

BEFORE THE ARIZONA CORPORATION COMMISSION

DOUG LITTLE
Chairman
BOB STUMP
Commissioner
BOB BURNS
Commissioner
TOM FORESE
Commissioner
ANDY TOBIN
Commissioner

IN THE MATTER OF THE APPLICATION OF ARIZONA WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY, AND FOR ADJUSTMENTS TO ITS RATES AND CHARGES FOR UTILITY SERVICE FURNISHED BY ITS WESTERN GROUP AND FOR CERTAIN RELATED APPROVALS	DOCKET NO. W-01445A-15-0277

DIRECT

TESTIMONY

OF

FRANK M. SMAILA

WATER/WASTEWATER ENGINEER

ARIZONA CORPORATION COMMISSION

UTILITIES DIVISION

MARCH 11, 2016

TABLE OF CONTENTS

EXHIBITS

INTRODUCTION

Q. Please state your name, place of employment and job title.

A. My name is Frank M. Smaila. My place of employment is the Arizona Corporation Commission ("Commission"), Utilities Division, 1200 West Washington Street, Phoenix, Arizona 85007. My job title is Water/Wastewater Engineer.

Q. How long have you been employed by the Commission?

A. I have been employed by the Commission since January 2015.

Q. Please list your duties and responsibilities.

A. As a Water/Wastewater Engineer, specializing in water and wastewater engineering, I inspect and evaluate water and wastewater systems; obtain data, prepare reports; suggest corrective action, provide technical recommendations on water and wastewater system deficiencies; and provide written and oral testimony on rate and other cases before the Commission.

Q. How many cases have you analyzed for the Utilities Division?

A. I have analyzed 9 cases to date covering various responsibilities for the Utilities Division plus over a dozen mainline extension agreements.

Q. What is your educational background?

A. I have a Bachelor of Science degree in Civil Engineering from the University of Pittsburgh at Johnstown and a Master of Science degree from Pennsylvania State University with a concentration in Mineral Processing.

Q. Briefly describe your pertinent work experience.

A. Prior to my employment with the Commission, I was an environmental engineering specialist with the Arizona Department of Environmental Quality ("ADEQ") for nine years. My responsibilities with ADEQ included review of projects for the construction of water facilities. Prior to that, I worked in the Federal Projects Section at ADEQ where I reviewed and developed engineering plans and specifications for proposed remediation of hazardous substances at Federal and State Superfund sites, and the Department of Defense sites. Prior to that, I worked as a project manager with the Arizona Department of Administration ("ADOA") providing administration management of Inmate Construction Program ("ICP"). Prior to that, I worked as a project manager at an environmental consulting firm, Brown and Caldwell, where I provided management of soil remediation and water supply rehabilitation projects. Prior to that, I worked as the chief engineer at the Pinto Valley Copper Mine, Magma Copper Company and later Broken Hills Proprietary, where I managed the Company's engineering department.

PURPOSE OF TESTIMONY

Q. Were you assigned to provide the Utilities Division Staff's ("Staff") engineering analysis and recommendations for this Arizona Water Company ("AWC" or "Company") rate case proceeding?

A. Yes. I reviewed the Company's application and responses to data requests, and I visited AWC Western Group water systems. This testimony and its attachment present Staff's engineering evaluation.

ENGINEERING REPORT

Q. Please describe the attached Engineering Report, Exhibit FMS.

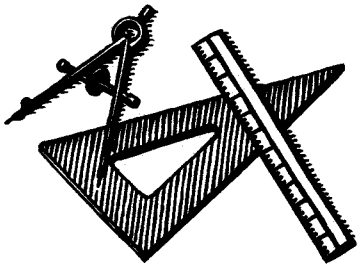
A. Exhibit FMS presents AWC water systems' details and Staff's analysis and findings, and is attached to this direct testimony. Exhibit FMS contains the following major topics: (1) a description and analysis of each water system, (2) water use, (3) growth, (4) compliance with the rules of the ADEQ and Arizona Department of Water Resources ("ADWR"), (5) depreciation rates (6) post test-year plant installations, (7) off-site facilities fees and (8) Staff's conclusions and recommendations.

Q. Please summarize Staff's engineering conclusions and recommendations.

A. Such a summary is provided at the front of Exhibit FMS.

Q. Does this conclude your direct testimony?

A. Yes, it does.



Engineering Report For
Arizona Water Company (Western Group)
Docket No. W-01445A-15-0277 (RATES)
By: Frank M. Smaila
Utilities Engineer
February 1, 2016

SUMMARY

CONCLUSIONS

1. The Arizona Department of Environmental Quality ("ADEQ") or its formally delegated agent, the Maricopa County Environmental Services Department ("MCESD"), has reported that all six Arizona Water Company ("AWC" or "Company") Western Group water systems have no deficiencies and these systems are currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, and Chapter 4.

2. Based on the Company's water use data sheets for the test year in the rate application and responses to data requests, all six AWC Western Group water systems have a water loss within acceptable limit of 10 percent.

3. Based on the Company's water use data sheets for the test year in the rate application, all AWC Western Group water systems have adequate production and storage capacities to serve their respective present customer base and a reasonable level of growth.

4. Coolidge Airport water system, Public Water System Number 11-707, is classified as a non-transient non-community water system and therefore is not regulated by Arizona Department of Water Resources ("ADWR").

5. The ADWR has determined that all five of the Company's ADWR regulated water systems are in compliance with ADWR requirements governing community water systems.

6. According to the Arizona Corporation Commission ("ACC" or "Commission") Utilities Division compliance database, the Company has no delinquent Commission compliance items.

7. The Company has nine approved Best Management Practices Tariffs.

8. Staff concludes that the Post-Test Year Installations ("PTY") capital improvement project costs, totaling $7,219,397, were in-service and used and useful to the water systems provision of service at the time of Staff's inspections.

9. The Company has approved curtailment plan and a backflow prevention tariffs.

10. Staff concludes that Nitrate Removal Facilities are necessary for four Wells in the Pinal Valley water system, Well Nos. 7, 27, 32 & 33.

11. Staff concludes that Arsenic Removal Facilities are necessary for the Pinal Valley water system Valley Farms facility, Well Nos. 34 & 13 and Point of Use devices at the Coolidge Airport.

RECOMMENDATIONS

1. Staff recommends that the Company's reported annual water testing expense of $114,082 (which excludes the ADEQ Monitoring Assistance Program ("MAP") expense of $8,144) be accepted for this proceeding, as presented in Table B.

2. Staff recommends the adoption of the previously approved depreciation rates developed by the Company, as presented in Table C.

3. Staff recommends the acceptance of the Company's requested service line and meter installation charges, as delineated in Table D.

4. Staff recommends that the Company requested System Improvement Benefits Mechanism ("SIB") not be approved at this time due to the lack of project prioritization and cost schedule, the inability of the Company to complete proposed projects within a reasonable timeframe and water loss being less than 10 percent for all water systems.

5. Staff recommends adoption of the White Tank 2015 CAP Use Plan and Off-site Facilities Fee Tariff for the Central Arizona Project ("CAP") water allocation to White Tank water system as discussed in Section VII and shown in the attached Exhibit A of this report.

   Staff further recommends that the Company file with Docket Control, as a compliance item in this docket, an off-site facilities fee status report each January 31st for the prior twelve (12) month period, beginning January 31, 2017, until the off-site facilities fee tariff is no longer in effect.

6. Staff recommends adoption of the Pinal Valley 2015 CAP Use Plan and revised Off-site Facilities Fee Tariff for the CAP water allocation to Pinal Valley water system as discussed in Section VII and shown in the attached Exhibit B of this report.

   Staff further recommends that the Company file with Docket Control, as a compliance item in this docket, an off-site facilities fee status report each January 31st for the prior twelve (12) month period, beginning January 31, 2017, until the off-site facilities fee tariff is no longer in effect.

7. Staff recommends adoption of the proposed fire sprinkler systems change to the Pinal Valley water system Off-Site Facilities Fee Schedule as discussed in Section VII and depicted in Exhibit B to this report.

TABLE OF CONTENTS

EXHIBITS

I. GENERAL INTRODUCTION AND LOCATION OF COMPANY

On August 21, 2015, Arizona Water Company ("AWC" or "Company") filed an Amended[1] Application with the Arizona Corporation Commission ("ACC" or "Commission") for a rate increase for its Western Group, using a test year ending December 31, 2014. The Commission's Utilities Division Staff ("Staff") engineering review and analysis of the amended application is presented in this report.

The Company's Western Group supplies water to approximately 31,825 customers in Pinal, Maricopa and Pima counties. The Western Group is comprised of the Ajo, Pinal Valley and White Tank service areas. The Pinal Valley service area is comprised of the Casa Grande, Coolidge Airport, Tierra Grande and Stanfield public water systems ("Pinal Valley Group"), and were consolidated for rate making purposes in Decision No. 71845. The Pinal Valley Group is located in Pinal County while the White Tank and Ajo water systems are located in Maricopa and Pima Counties respectively.

Figure 1 shows the location of the Company's Western Group water systems within Arizona and delineates the Company's approximately 240,000 acres of existing certificated area. Each system is named after the community where the system is located. Figure 2 shows the location of the Company's Pinal Valley Group within Pinal County.

Each water system was visited by Frank Smaila, Staff Utilities Engineer, accompanied by Company representatives Fred Schneider, Joseph Harris, Ray Murrieta, Jessie Madrid and the respective water system operations manager.

[1] On July 31, 2015 AWC filed a "Notice of Intent to File General Rate Case and Request for Accounting Order". On August 21, 2015 AWC filed its applications and 12 amendments.

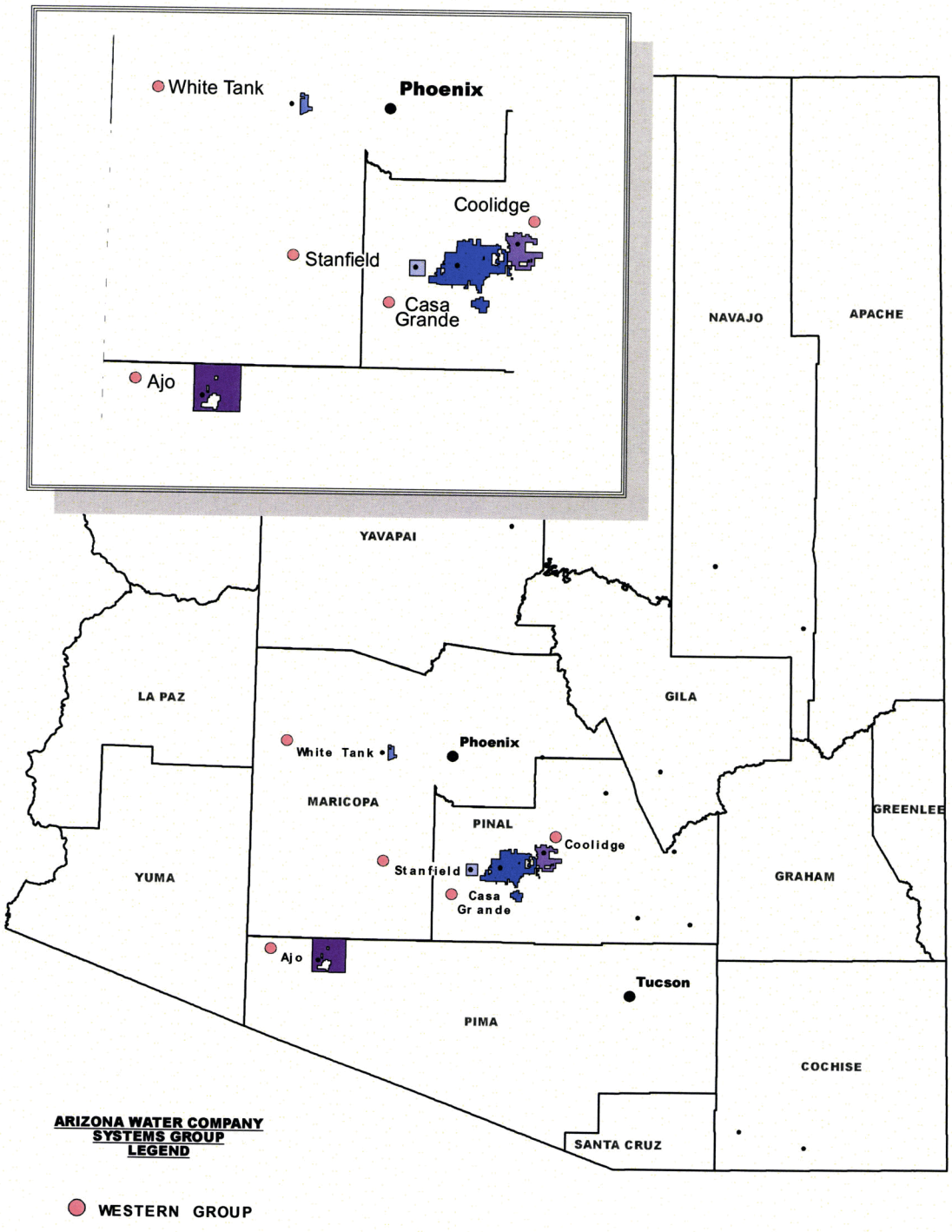


Figure 1. AWC Western Group within Arizona

Pinal County

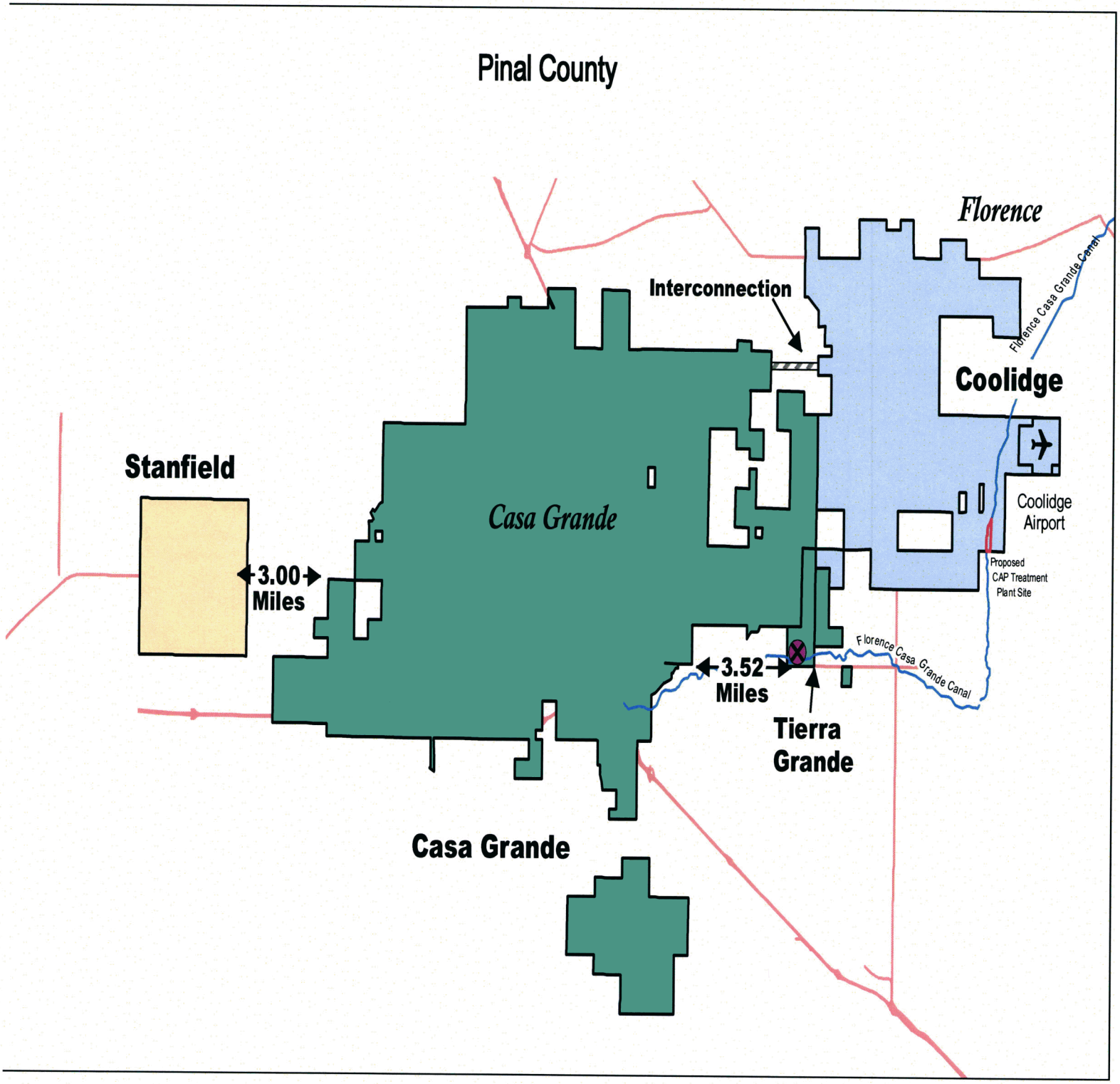


Figure 2. Pinal Valley Group within Pinal County

II. WATER SYTEMS

Summary

Statistical information for the Western Group's six systems is tabulated below:

Table A. Western Group Information

	Pinal Valley Group					
System Name	Tierra Grande	Pinal Valley	Stanfield	Coolidge Airport	White Tank	Ajo
County	Pinal	Pinal	Pinal	Pinal	Maricopa	Pima
PWS No[2]	11-076	11-009	11-012	11-707	07-128	10-003
ADEQ compliant?[3]	Yes	Yes	Yes	Yes	Yes	Yes
ADWR compliant?[4]	Yes	Yes	Yes	Yes	Yes	Yes
AMA	Yes/Pinal	Yes/Pinal	Yes/Pinal	Yes/Pinal	Yes/Phoenix	No
Number of Approximate Connections at the end of test year	360	28,250	195	9	2,360	650
Adequate Production Capacity?	Yes	Yes	Yes	Yes	Yes	Yes
Adequate Storage Capacity?	Yes	Yes	Yes	Yes	Yes	Yes
Water Loss	4.0%	9.3%	6.2%	5.1%	4.3%	6.0%
MAP Fees[5]	Yes	No	Yes	No	Yes	No
Number of Arsenic Treatment Plants	None	6	1	None	2	None
Number of Nitrate Treatment Plants	None	1		None	1	None
Purchased Potable Water	No	No	No	No	Yes	Yes
CAP M&I Fees[6]	N/A	Yes[7]	N/A	N/A	Yes[7]	N/A

[2] Public Water System Number. ("PWS No").
[3] Arizona Department of Environmental Quality ("ADEQ").
[4] Arizona Department of Water Resources ("ADWR").
[5] Monitoring Assistance Program ("MAP").
[6] The Central Arizona Project Municipal and Industrial ("CAP M&I") fee was originally named "CAP Hook-Up Fee". The name was changed to "CAP M&I" fee in Decision No. 73144. The Commission approved these fees for the purpose of recovering ongoing and deferred CAP M&I subcontract capital charges. Decision No. 73144 approved that the CAP [hook-up fees] for the Casa Grande, Coolidge and White Tank systems should be continued, without change. The Company requests that the Commission authorize the continuation of CAP M&I fees for Pinal Valley and White Tank services areas.
[7] Decision No. 68302 authorized AWC to implement CAP Hook-Up Fee ("HUF") tariffs for its Western Group. Decision No. 71845 authorized AWC to continue charging the CAP HUFs for the Casa Grande, Coolidge, and White Tank systems until its next Western Group rate case or December 31,2012, whichever came first. Separate fees were approved for the Casa Grande ($208), Coolidge ($150) and White Tank ($500) water systems.

Proposed Off-Site Facilities Fee	N/A	Yes	Yes	N/A	N/A	N/A
Date of Site Inspection	12/10/15	12/10/15 & 12/11/15	12/10/15	12/11/15	12/08/15	11/12/15
Follow-up Site Inspection[8]	N/A	2/1/2016	N/A	N/A	N/A	N/A

1. Tierra Grande PWS # 11-076

A. Location and Description of the System

The water system serves an eastern part of Casa Grande area in Pinal County. The water system consists of two wells, two storage tanks, two pressure tanks, three booster pumps, chlorination system and a distribution system serving approximately 360 connections. A detailed plant facility listing is as follows:

Table 1TG. Wells

AWC Well ID	ADWR Well ID	Pump (HP)	Pump Yield (GPM)	Casing Depth (feet)	Casing Diameter (inches)	Meter Size (inches)	Pump Motor Type	Year Drilled	Water Treatment Systems
Well # 1	55-616682	75	420	496	20	6	Turbine	1972	Chlorination System
Well # 3	55-801030	10	145	379	14	2	Submersible	N/A	
TOTALS		**85**	**565**						

Table 2TG. Storage & Pressure Tanks and Booster Pumps

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
10,000	1	2,000	1	10	2
250,000	1	5,000	1	50	1
TOTAL 260,000		**7,000**		**70**	

[8] Follow-up Site Inspection to inspect Post Test-Year Plant Installations that were not complete or in-service during initial inspection of 12/11/2015.

Table 3TG. Water Mains

Size (inches)	Material Type	Approximate Length (feet)[9]
4	Various	1,530
6	Various	22,100
8	Various	20,550
12	Various	4,920
TOTAL		**49,100**

Table 4TG. Customer Meters

Size	Quantity
5/8 x ¾ inch	347
1 inch	7
Compound 2 inch	4
Turbo 3 inch	1
TOTAL	**359**

Table 5TG. Fire Hydrants

Size	Quantity
Standard	8
Non-Standard	0
TOTAL	**8**

B. Water Use

Water Sold

The Figure below represents the water consumption data for the test year ending December 31, 2014, provided by the Company in its annual report to the ACC. Customer consumption included a high monthly water use of 398 gallons per day ("GPD") per connection in May, and the low water use was 248 GPD per connection in December. The average annual use was 339 GPD per connection.

[9] Amassed from the ACC 2014 Annual Report.

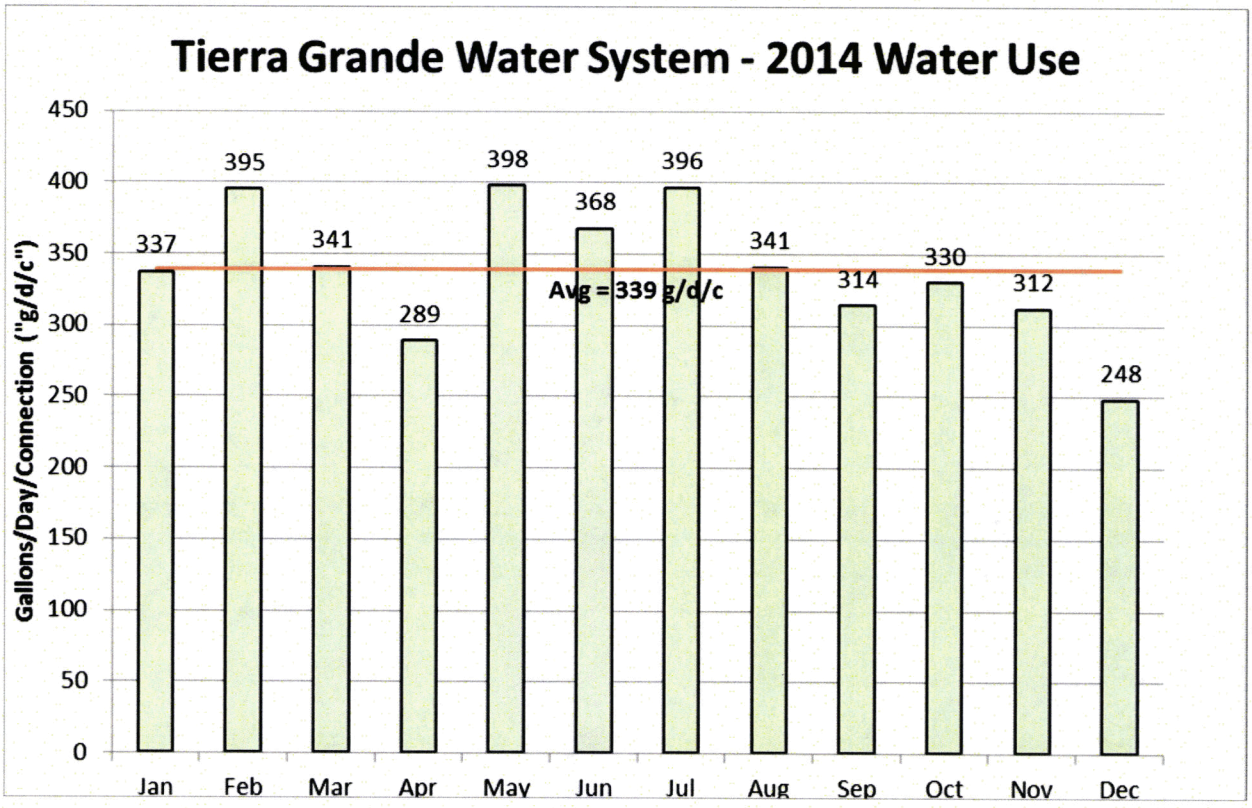


Figure 1TG. Water Use

Non-account Water

The Company reported 46,465,300 gallons pumped, 44,304,300 gallons sold and 1,759,200 gallons of authorized non-revenue uses for the test year, resulting in a water loss of 4.0 percent. This percentage is within acceptable limit of 10 percent.

C. System Analysis

Based on the data provided by the Company for the Test Year, Staff concludes that the Tierra Grande water system source production capacity of 565 GPM and storage capacity of 260,000 gallons is adequate to serve the present customer base and reasonable growth. A system schematic is shown as Figure 2TG.

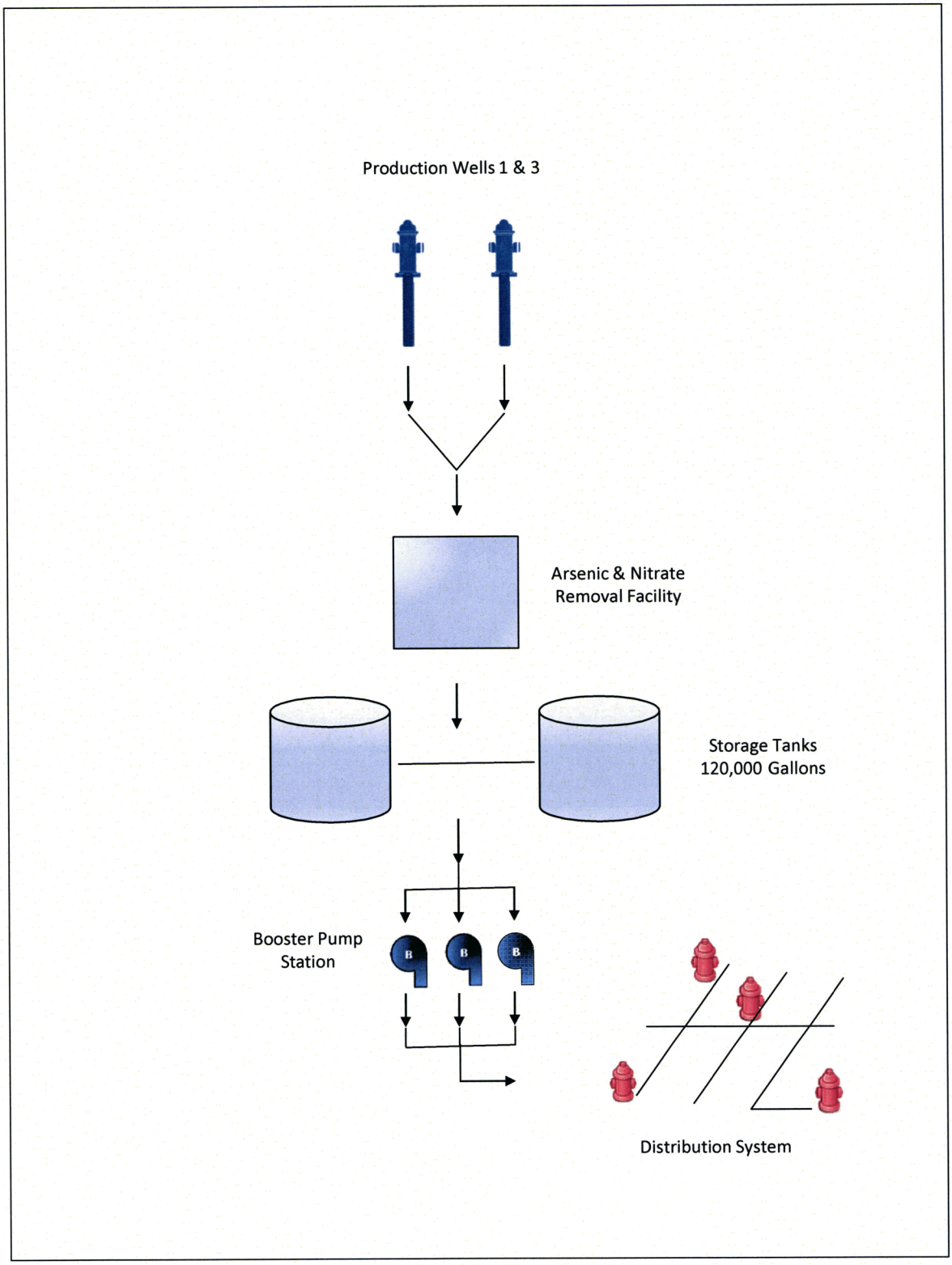


Figure 2TG. System Schematic

D. Growth

Based on customer data provided by the Company in their annual reports, from 2008 to 2012, Tierra Grande water system lost customers, but have increased the number of customers the past two years. Figure 2TG depicts actual customers from 2008 to 2014, and projects that the number of connections in the service area will decrease in the next five years using linear regression analysis. The Company stated "For Tierra Grande we expect little if any gain in connections."[10]

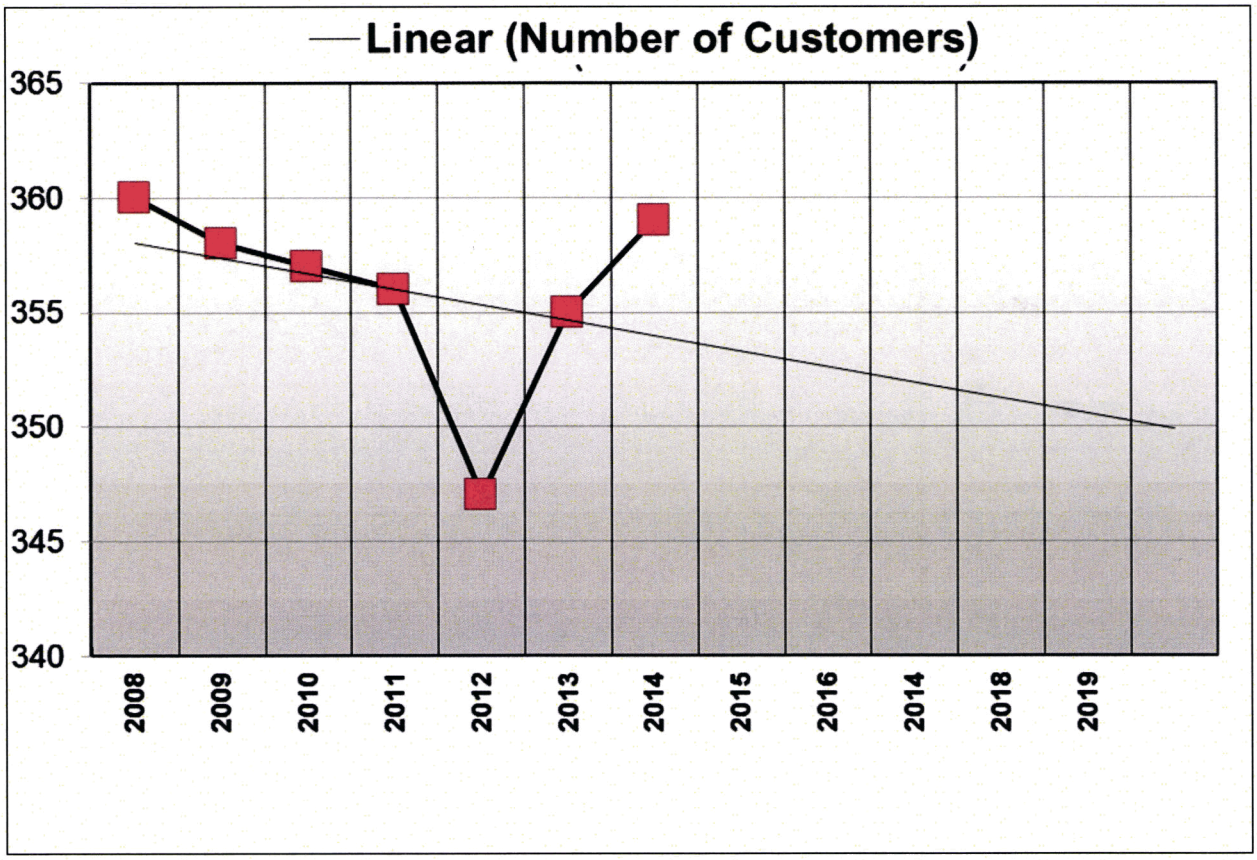


Figure 3TG. Growth Projection

2. Pinal Valley (Casa Grande & Coolidge) PWS # 11-009

A. Location and Description of the System

In 2010, the Company merged its interconnected Casa Grande and Coolidge water systems and renamed the combined system Pinal Valley water system. This system serves the Casa Grande and Coolidge areas in Pinal County. Major plant in service includes 22 active wells, six arsenic treatment plants, one nitrate treatment plant, ten chlorination systems, one Supervisory Control and

[10] Email from Fred Schneider ("Mr. Schneider"), AWC Vice President of Engineering, to Staff. December 17, 2015.

Data Acquisition ("SCADA") system[11], 15 storage tanks, 34 booster pumps, and distribution systems serving approximately 28,250 connections. A breakdown of the plant facilities is tabulated below:

Table 1PV. Wells

AWC Well ID	ADWR Well ID, 55-	Pump (HP)	Pump Yield (GPM)	Casing Depth (feet)	Casing Diameter (inches)	Meter Size (inches)	Year Drilled	Pump Motor Type	Water Treatment Systems
Well # 19	616603	300	1500	1000	20	10	1980	Turbine	Arsenic Treatment (Henness Road) Chlorination Systems
Well # 21	506809	250	680	696	20	6	1983	Turbine	
Well # 24	540306	300	920	1000	18	8	1993	Turbine	
Well # 30	208822	200	720	1000	18	8	2006	Turbine	
Well # 29	595284	250	1280	1120	18	10	2004	Turbine	Arsenic Treatment (Mission Royale) Chlorination System
Well # 27	568553	200	455	1110	18	4	1998	Turbine	Arsenic Treatment (Lake in the Desert) Chlorination System
Well # 28	571205	350	1350	1210	18	10	1999	Turbine	Arsenic Treatment (Arizona City) Chlorination System
Well # 23	522319	300	1500	1005	18	8	1989	Turbine	Arsenic Treatment (Cottonwood Lane) Chlorination Systems
Well # 25	546719	300	1230	1074	18	8	1995	Turbine	
Well # 26	560803	300	1360	1240	18	10	1997	Turbine	
Well # 10	616595	200	840	1025	20	8	1960	Turbine	
Well # 14	616598	40	160	600	20	4	1982	Submersible	
Well # 17	616601	200	700	739	16	6	1975	Turbine	
Well # 20[12]	616604	300	950	1000	20	8 & 10	1977	Turbine	
Well# 31	210294	250	1045	1500	18	10	2006	Turbine	
Well# 32	214248	300	1470	1200	18	10	2007	Turbine	Chlorination System
Well# 33	212523	300	1370	1000	18	10	2007	Turbine	Chlorination System
Well #7	616606	200	1100	1100	20	8	1956	Turbine	Chlorination System
Well #9	616608	200	1240	470	20	10	1961	Turbine	Nitrate Treatment (Coolidge) Chlorination System
Well #10	616609	200	1430	980	20	12	1978	Turbine	
Well #2	616687	50	250	542	8	4	1971	Submersible	Arsenic Treatment

[11] SCADA is a system that operates with coded signals over communication channels so as to provide control of remote equipment (using typically one communication channel per remote station).
[12] Excess water from Well #20 that is not purchased by Abbot Labs is treated at the Cottonwood ATP.

Well #1	616686	15	140	N/A	10	4	1930	Submersible	(Valley Farms) Chlorination System
Well #13[13]	212419	200	1250	2000	18	10	2007	Turbine	Presently Evaluating Treatment Technologies
TOTALS		**4,905**	**22,940**						

Table 2PV. Treatment Plants

Wells Treated	Type of Treatment	Plant Name	Maximum Capacity (GPM)	Manufacturer	Plant Placed in Operation
# 19, #21, #24 & #30	Arsenic	Henness Road	4,050	Layne	2007
#29	Arsenic	Mission Royale	1,500	Layne	2007
#27	Arsenic	Lake in the Desert	400	Layne	2008
#28	Arsenic	Arizona City	1,500	Layne	2008
#10, #14, #17, #20, #23, #25, #26 & #31	Arsenic	Cottonwood Lane	5,800	Layne	2007
#1 & #2	Arsenic	Valley Farms	250	Severn Trent	2015
#9 & #10	Nitrate	Coolidge	1,000	Layne	2008

Table 3PV. Storage & Pressure Tanks and Booster Pumps

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
16,000	1	5,000	3	7.5	1
35,000	1	6,000	2	10	3
100,000	1			15	1
110,000	1			20	1
116,000	1			25	3
250,000	1			40	7
500,000	1			60	3
650,000	1			75	4
1,000,000	2			100	1

[13] Per Direct Testimony of Fredrick K. Schneider, pages 11 & 12, Arsenic level in Well #13 has increased from 8 to 14 ppb and was removed from service in December 2010. The Company is evaluating arsenic treatment technologies to be constructed at Well #13.

1,100,000	1			125	2
2,000,000	2			150	7
5,000,000	2			300	1
TOTAL 18,877,000		**11,000**		**2,607.5**	

Table 4PV. Water Mains

Size (inches)	Material Type	Approximate Length (feet)[14]
2	Various	50,600
3	Various	25,200
4	Various	328,100
6	Various	1,583,000
8	Various	775,300
10	Various	57,000
12	Various	602,300
14	Various	1,200
16	Various	154,900
20	Various	1,200
24	Various	45,000
36	Various	1,600
TOTAL		**3,625,400**

Table 5PV. Customer Meters

Size	Quantity
5/8 x ¾ inch	26,247
1 inch	947
2 inch	12
Compound 2 inch	561
Compound 3 inch	40
Compound 4 inch	21
Compound 6 inch	3
Turbo 2 inch	17
Turbo 2 inch	2
Turbo 2 inch	16
Turbo 2 inch	27
Turbo 2 inch	2
TOTAL	**27,895**

[14] Amassed from the ACC 2014 Annual Report.

Table 6PV. Fire Hydrants

Size	Quantity
Standard	3,374
Non-Standard	0
TOTAL	**3,374**

B. Water Use

Water Sold

The Figure below represents the water consumption data for the test year ending December 31, 2014, provided by the Company in its annual report to the ACC for its combined Pinal Valley system. Customer consumption included a high monthly water use of 585 GPD per connection in August, and the low water use was 338 GPD per connection in March. The average annual use was 454 GPD per connection.

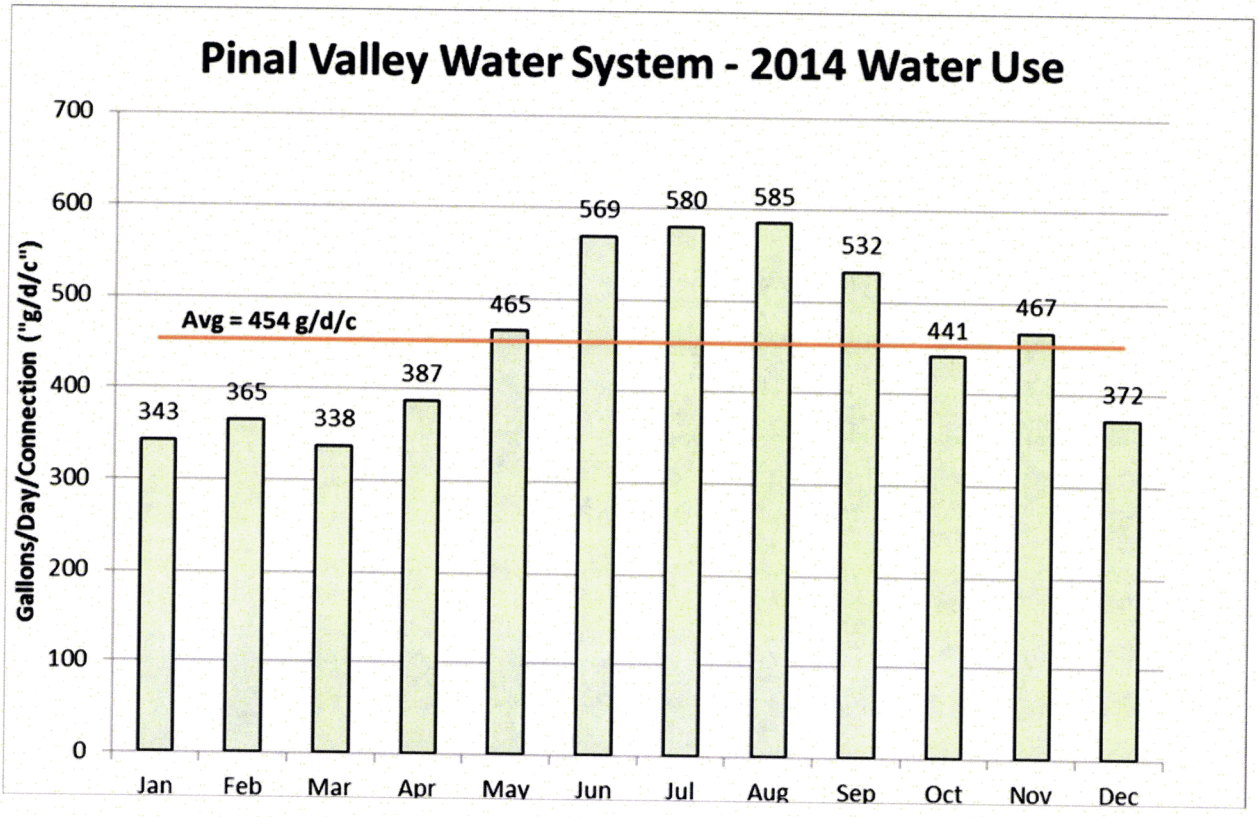


Figure 1PV. Water Use

Non-account Water

The Company reported 5,236,228,600 gallons pumped, 4,683,191,300 gallons sold and 184,361,800 gallons of authorized and non-authorized non-revenue uses for the test year for its Pinal Valley water system, resulting in a water loss of 9.3 percent. This percentage is within acceptable limit of 10 percent.

C. System Analysis

Based on the water use data sheet provided by the Company for the Test Year, Staff concludes that the Pinal Valley water system's total source capacity of 21,690[15] GPM and total storage capacity of 18,877,000 gallons is adequate to serve the present customer base and reasonable growth. A system schematic is shown as Figures 2PV-A, 2PV-B & 2PV-C.

[15] Does not include Well #13

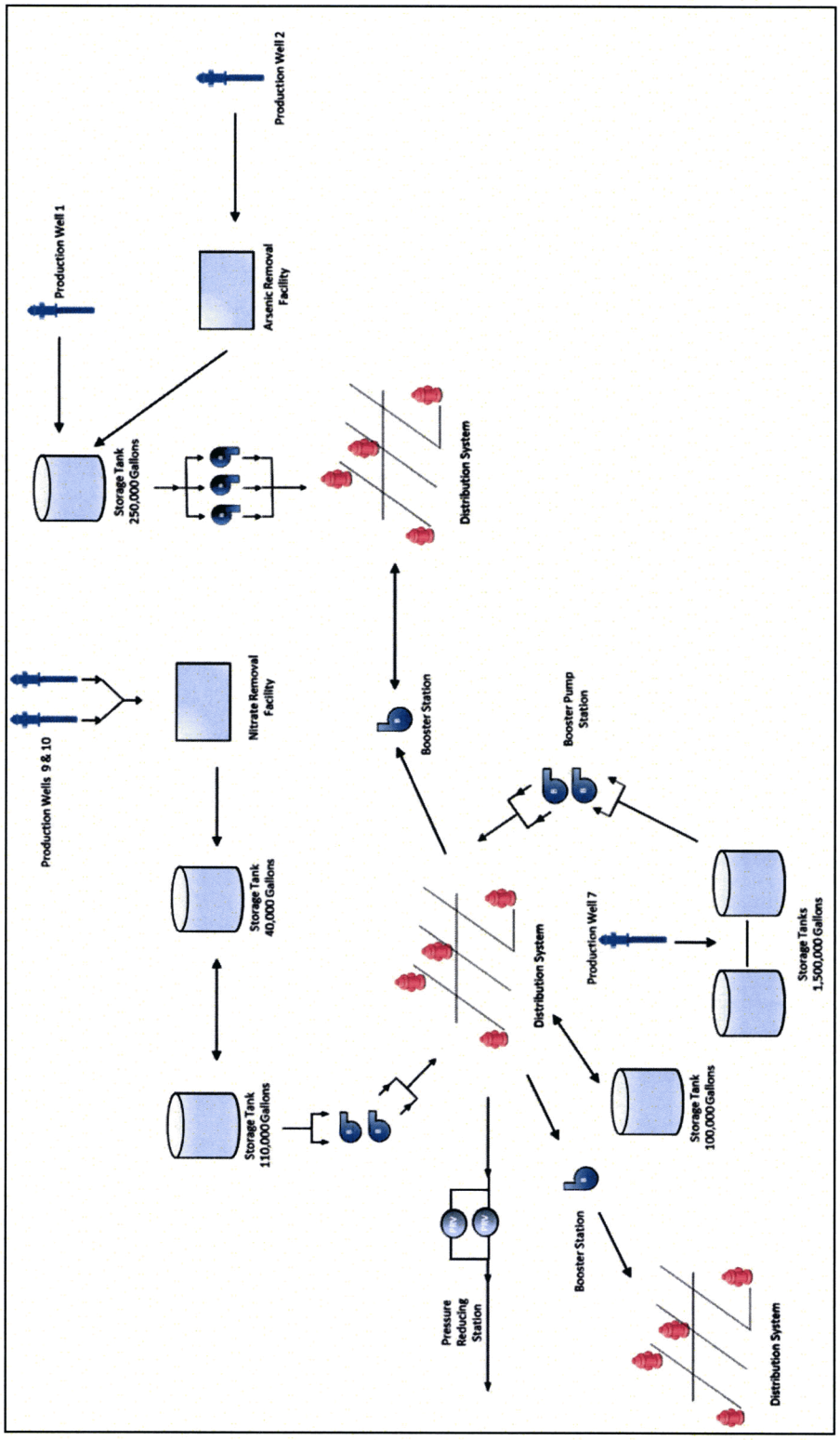


Figure 2PV-A. System Schematic

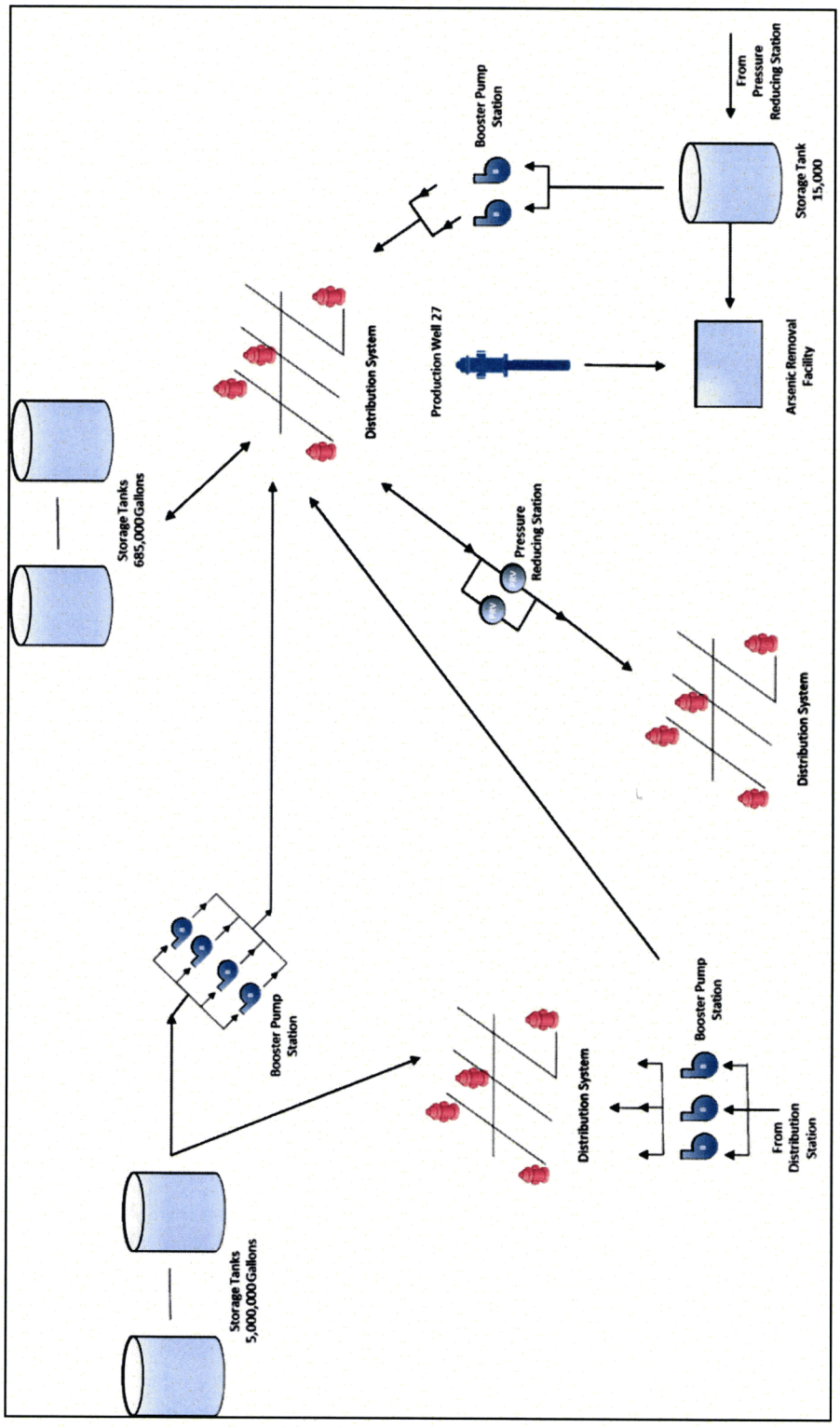


Figure 2PV-B. System Schematic

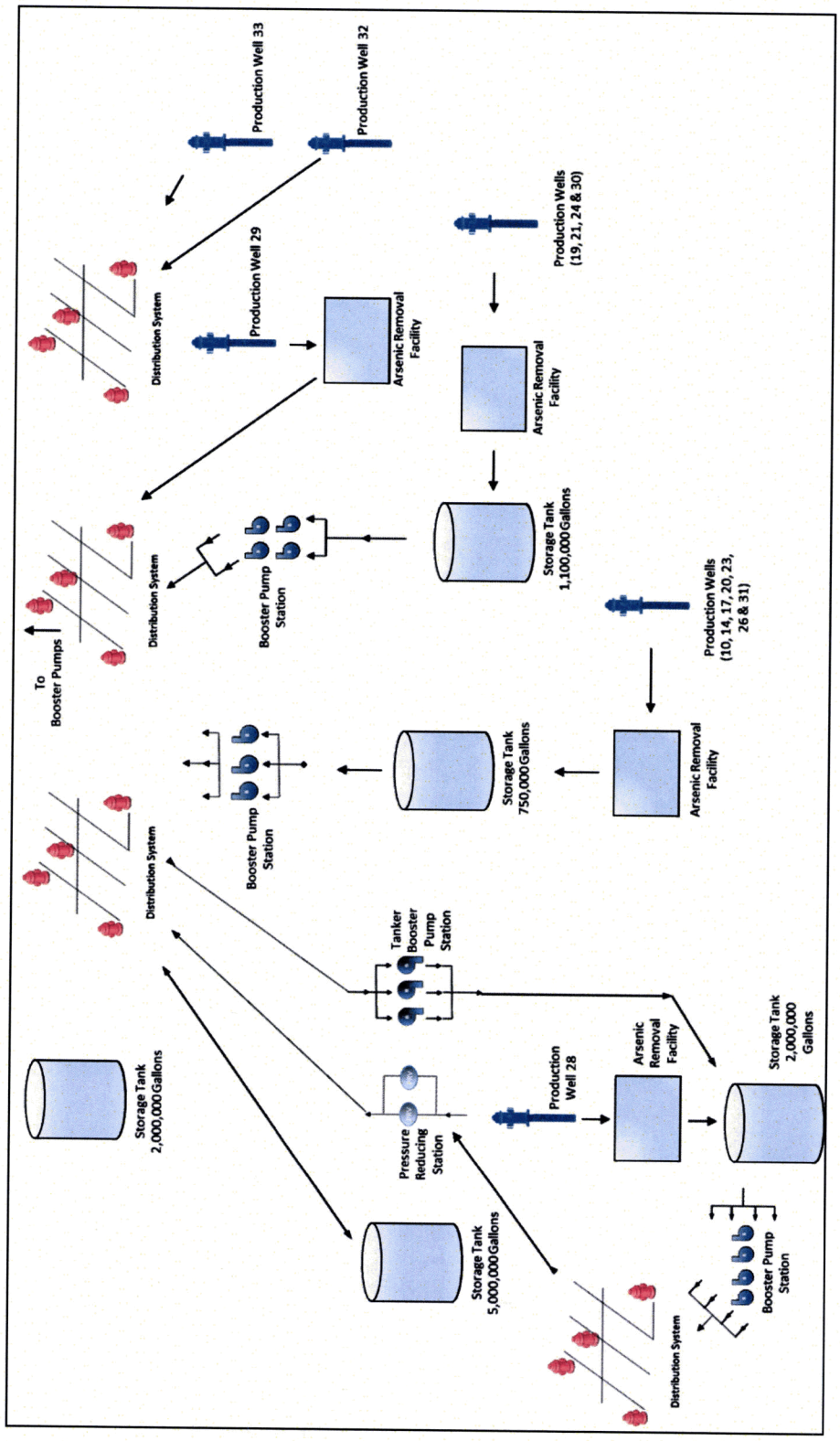


Figure 2PV-C. System Schematic

D. Growth

Based on customer data provided by the Company in their ACC annual reports, it is projected that this system's customer base will remain relatively flat through the next 3 to 5 years. The Figure below depicts actual growth from 2005 to 2014 and projects an estimated growth in the service area for the next five years using Moving Average Technical Analysis.

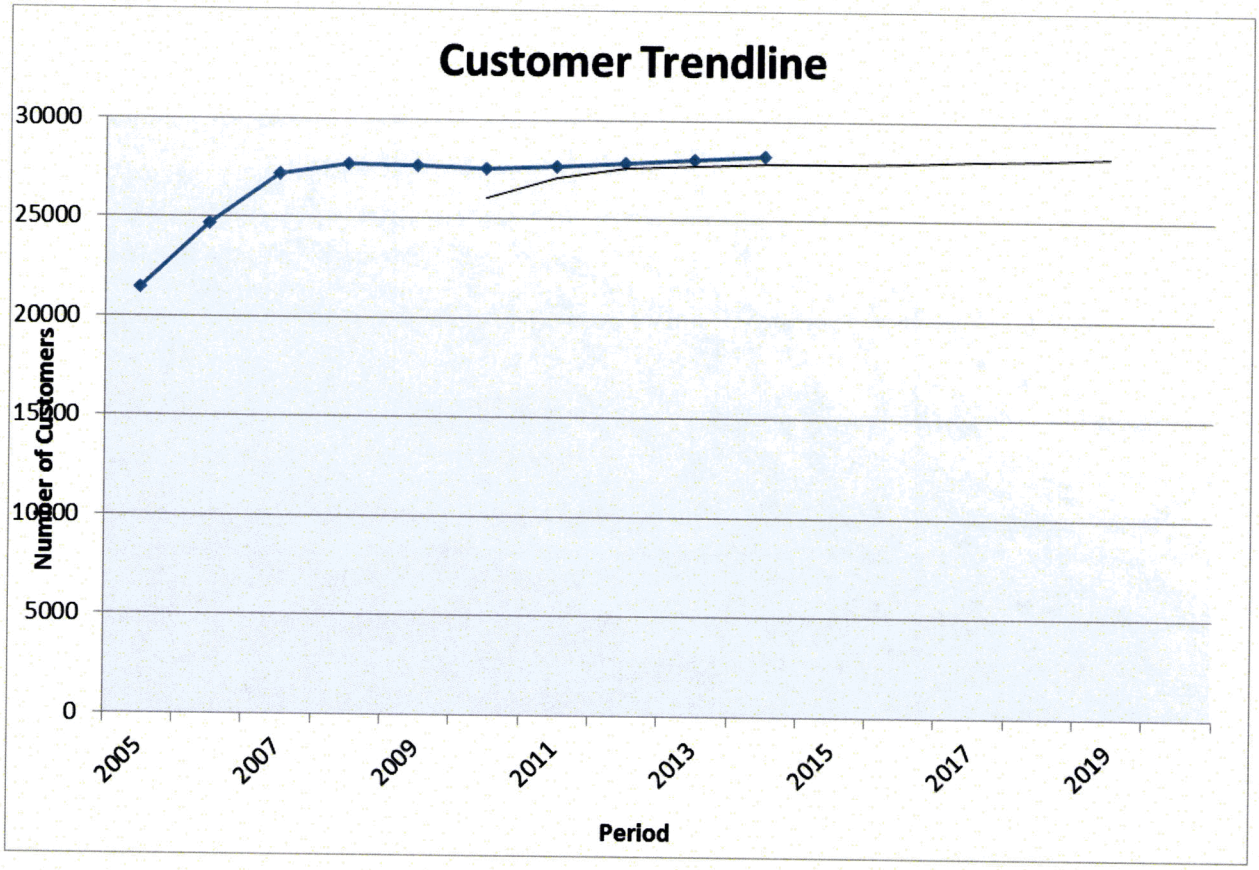


Figure 3PV. Growth Projection

3. Coolidge Airport PWS # 11-707

A. Location and Description of the System

According to the Company, AWC has operated the Coolidge Airport water system since November 2007. The City of Coolidge leases the Coolidge Airport water system to AWC pursuant to a Water System Lease and Operation Agreement dated November 1, 2007.

This system serves the Coolidge Airport area in Pinal County. Major plant in service includes two active wells, one storage tank, one pressure tank, five booster pumps, chlorination system and a distribution system serving nine connections. A breakdown of the plant facilities are tabulated below:

Table 1CA. Wells

AWC Well ID	ADWR Well ID	Pump (HP)	Pump Yield (GPM)	Casing Depth (feet)	Casing Diameter (inches)	Meter Size (inches)	Pump Motor Type	Year Drilled	Water Treatment Systems
Well # 1	55-620899	50	350	475	12	4	Turbine	1942	Chlorination System
Well # 2	55-620900	50	320	435	16	4	Submersible	1942	
TOTALS		**100**	**670**						

Table 2CA. Storage & Pressure Tanks and Booster Pumps

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
15,000	1	5,000	1	2	2
				10	1
				40	2
TOTAL 15,000		**5,000**		**94**	

Table 3CA. Water Mains

Size (inches)	Material Type	Approximate Length (feet)
3	Various	2,900
6	Various	540
12	Various	3,430
TOTAL		**6,870**

Table 4CA. Customer Meters

Size	Quantity
5/8 x ¾ inch	0
1 inch	3
Compound 2 inch	4
Turbo 2 inch	1
Compound 3 inch	1
TOTAL	**9**

Table 5CA. Fire Hydrants

Size	Quantity
Standard	3
Non-Standard	0
TOTAL	**3**

B. Water Use

Water Sold

The Figure below represents the water consumption data for the test year ending December 31, 2014, provided by the Company in its annual report to the ACC. Customer consumption included a high monthly water use of 1,376 GPD per connection in August, and the low water use was 402 GPD per connection in December.[16] The average annual use was 919 GPD per connection.

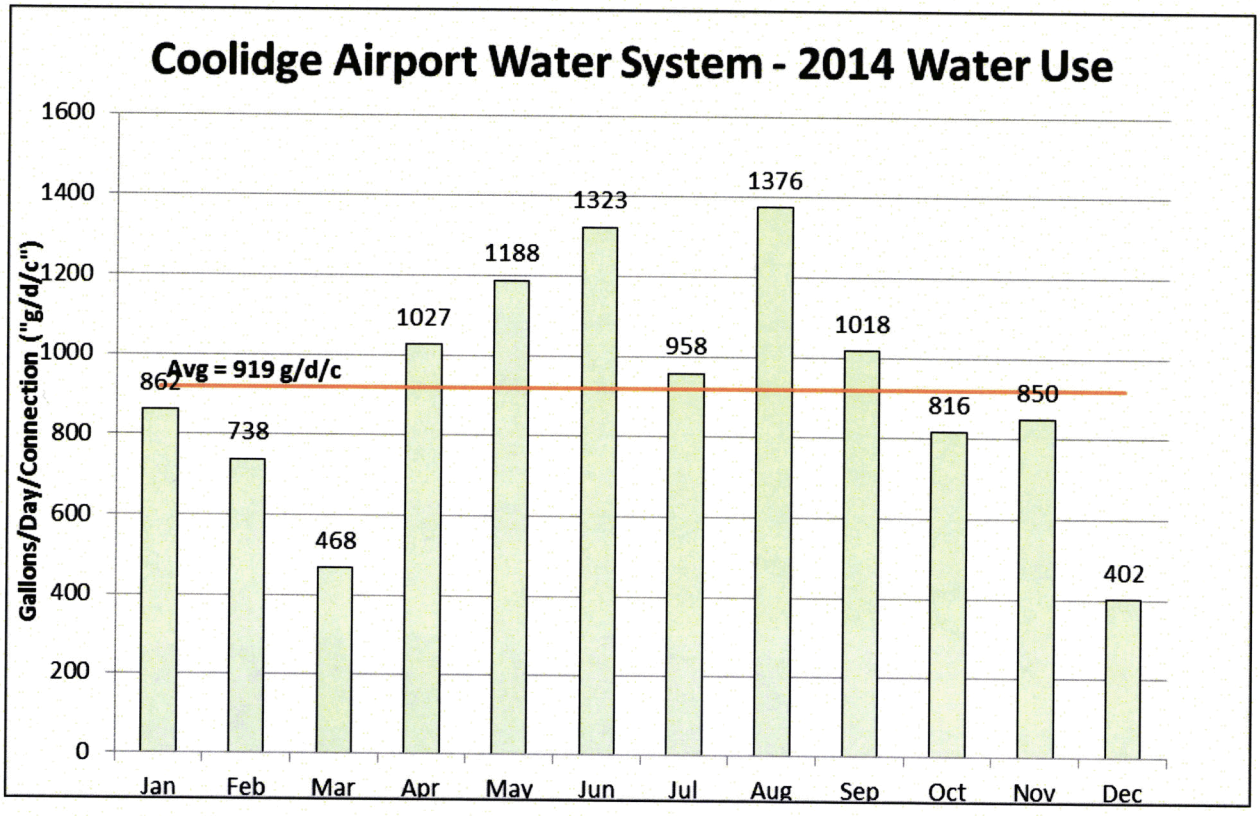


Figure 1CA. Water Use

[16] Staff requested an explanation why Coolidge Airport water usage was so great. Mr. Schneider responded "They are all commercial users and Complete Parachute Solutions performs military training. They have a kitchen, showers, etc. They can have large training events with people flown in from all over the USA, email dated January 7, 2016.

Non-account Water

The Company reported 3,798,000 gallons pumped, 3,018,500 gallons sold and 585,300 gallons of authorized non-revenue uses for the test year, resulting in a water loss of 5.1 percent. This percentage is within acceptable limit of 10 percent.

C. System Analysis

Based on the data provided by the Company for the Test Year, Staff concludes that the Coolidge Airport water system source production capacity of 670 GPM and storage capacity of 15,000 gallons is adequate to serve the present customer base and reasonable growth. A system schematic is shown as Figure 2CA.

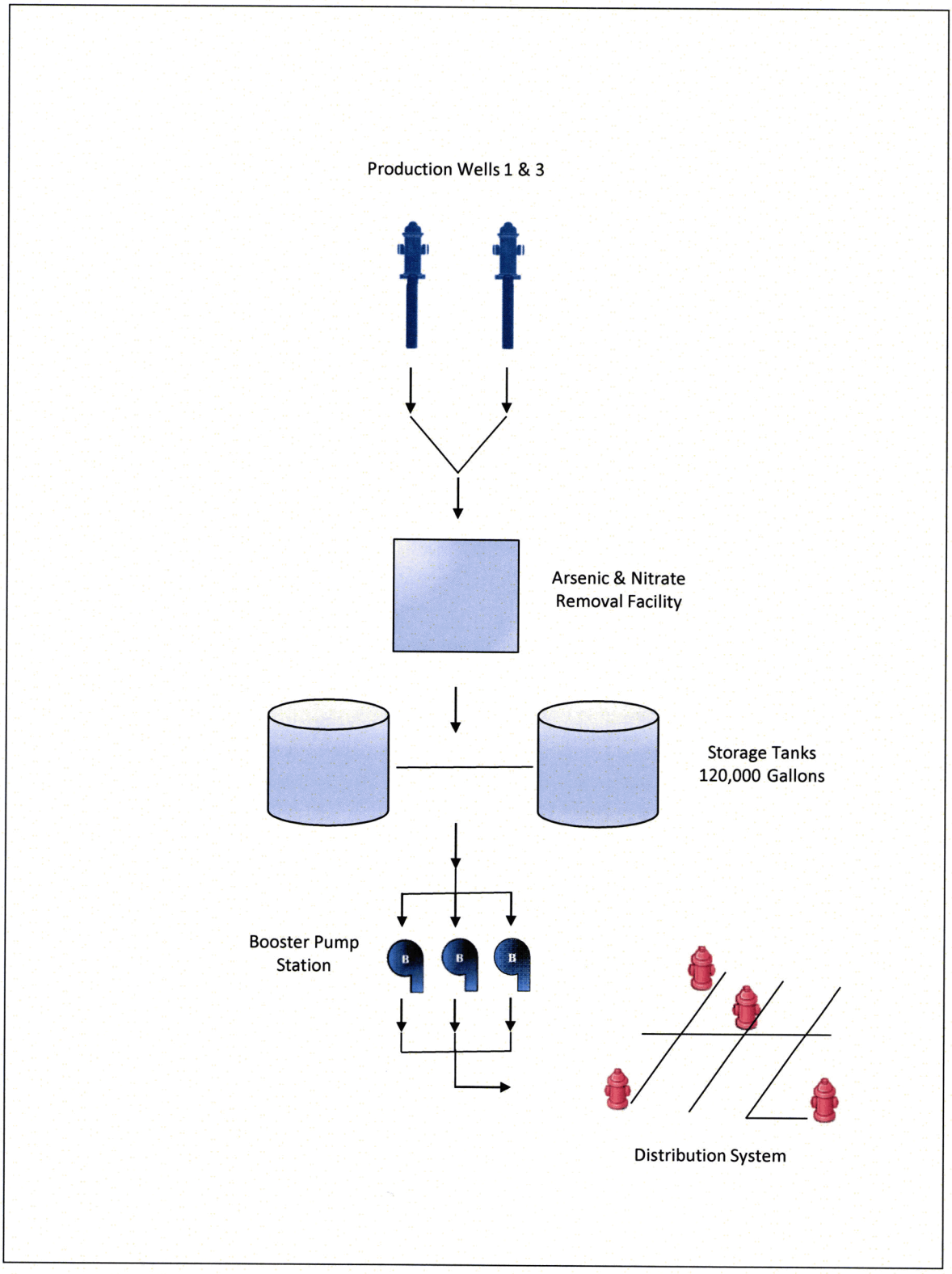


Figure 2CA. System Schematic

D. Growth

Based on customer data provided by the Company in their ACC annual reports, it appears that the Coolidge Airport water system's number of customers will remain fairly constant. Figure 2CA depicts actual customers from 2008 to 2014 and projects an estimated number of connections in the service area for the next five years using linear regression analysis.

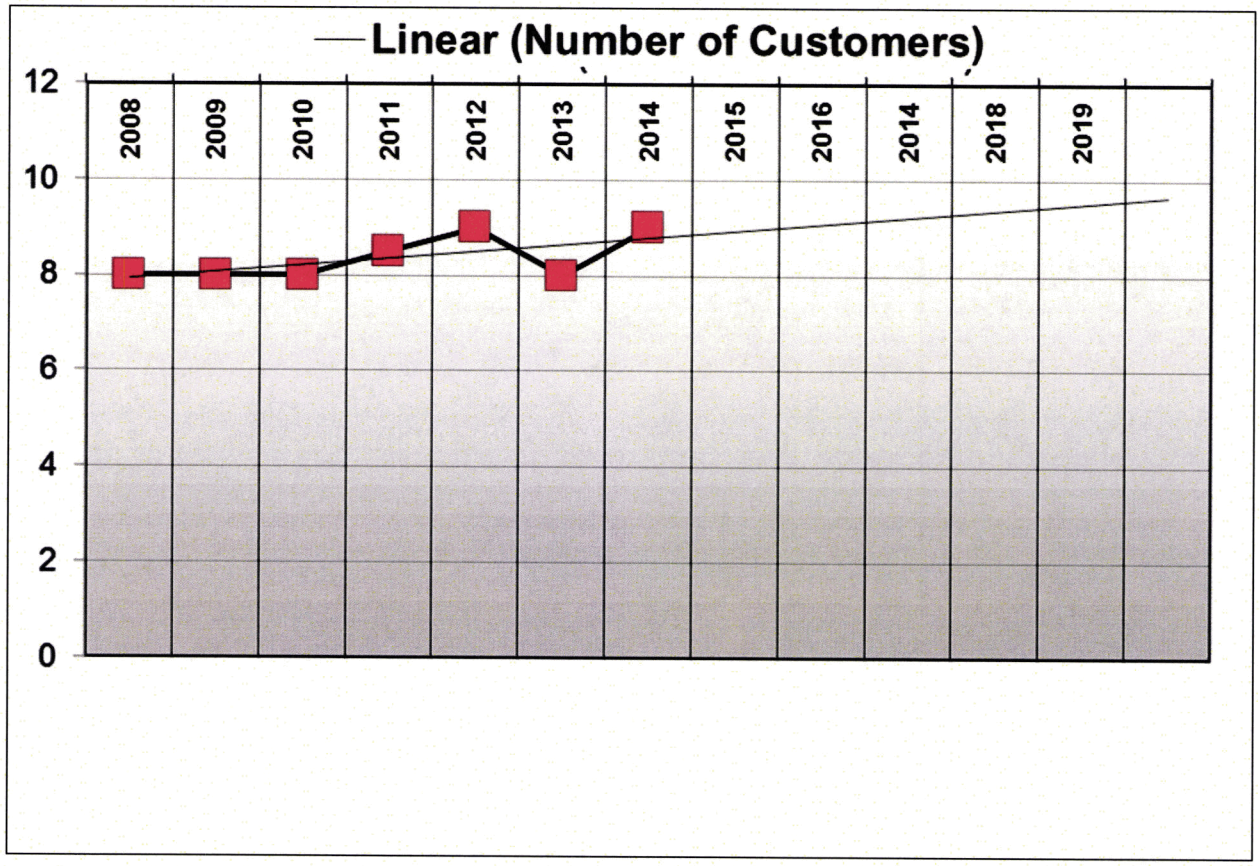


Figure 3CA. Growth Projection

4. Stanfield PWS # 11-012

A. Location and Description of the System

This system serves the Stanfield area in Pinal County. The water system consists of two wells, one arsenic/nitrate treatment plant, two storage tanks, two booster pumps, one pressure tank, chlorination system and a distribution system serving approximately 195 connections. A breakdown of the plant facilities is tabulated below:

Table 1SF. Wells

AWC Well ID	ADWR Well ID	Pump (HP)	Pump Yield (GPM)	Casing Depth (feet)	Casing Diameter (inches)	Meter Size (inches)	Pump Motor Type	Year Drilled	Water Treatment Systems
Well # 1	55-616684	100	280	811	16	4	Turbine	1963	Arsenic/Nitrate Treatment & Chlorination System
Well # 3	55-526586	60	195	1002	18	3	Submersible	1990	
TOTALS		**160**	**475**						

Table 2SF. Stanfield Arsenic/Nitrate Treatment Plant[17]

Treated Wells	Plant Site	Maximum Capacity (GPM)	Manufacturer/ Vendor	Plant Placed in Operation
Wells #1 & #3	Stanfield	350	Basin	April 2008

Table 3SF. Storage & Pressure Tanks and Booster Pumps

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
20,000	1	5,000	1	10	1
100,000	1			15	1
				30	1
TOTAL 120,000		**5,000**		**55**	

Table 4SF. Water Mains

Size (inches)	Material Type	Length (feet)
2	Various	420
4	Various	7,680
6	Various	17,280
TOTAL		**25,380**

[17] Arsenic/Nitrate Treatment Plant - Ion Exchange Filter Vessels & Sodium Chloride regenerate for Arsenic/Nitrate Removal.

Table 5SF. Customer Meters

Size	Quantity
5/8 x ¾ inch	186
¾ inch	0
1 inch	5
Compound 2 inch	4
TOTAL	**195**

Table 6SF. Fire Hydrants

Size	Quantity
Standard	12
Non-Standard	0
TOTAL	**12**

B. Water Use

Water Sold

Figure 1SF represents the water consumption data for the test year ending December 31, 2014, provided by the Company in its annual report to the ACC. Customer consumption included a high monthly water use of 540 GPD per connection in October, and the low water use was 247 GPD per connection in January. The average annual use was 411 GPD per connection.

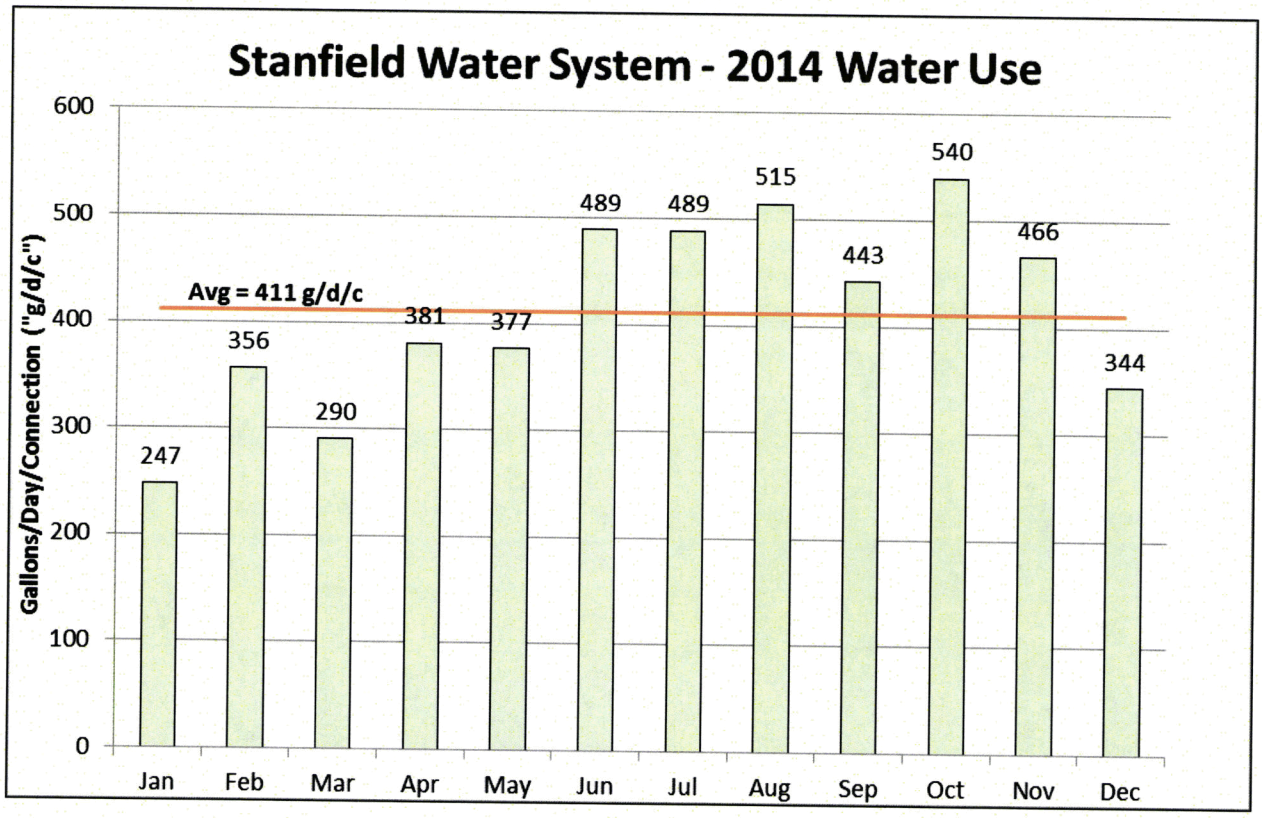


Figure 1SF. Water Use

Non-account Water

The Company reported 32,227,400 gallons pumped, 29,363,100 gallons sold and 1,651,500 gallons of authorized and non-authorized non-revenue uses for the test year, resulting in a water loss of 6.2 percent. This percentage is within acceptable limit of 10 percent.

C. System Analysis

Based on the data provided by the Company for the Test Year, Staff concludes that the Stanfield water system has adequate water production and storage capacity to serve its customer base and reasonable growth. A system schematic is shown as Figure 2SF.

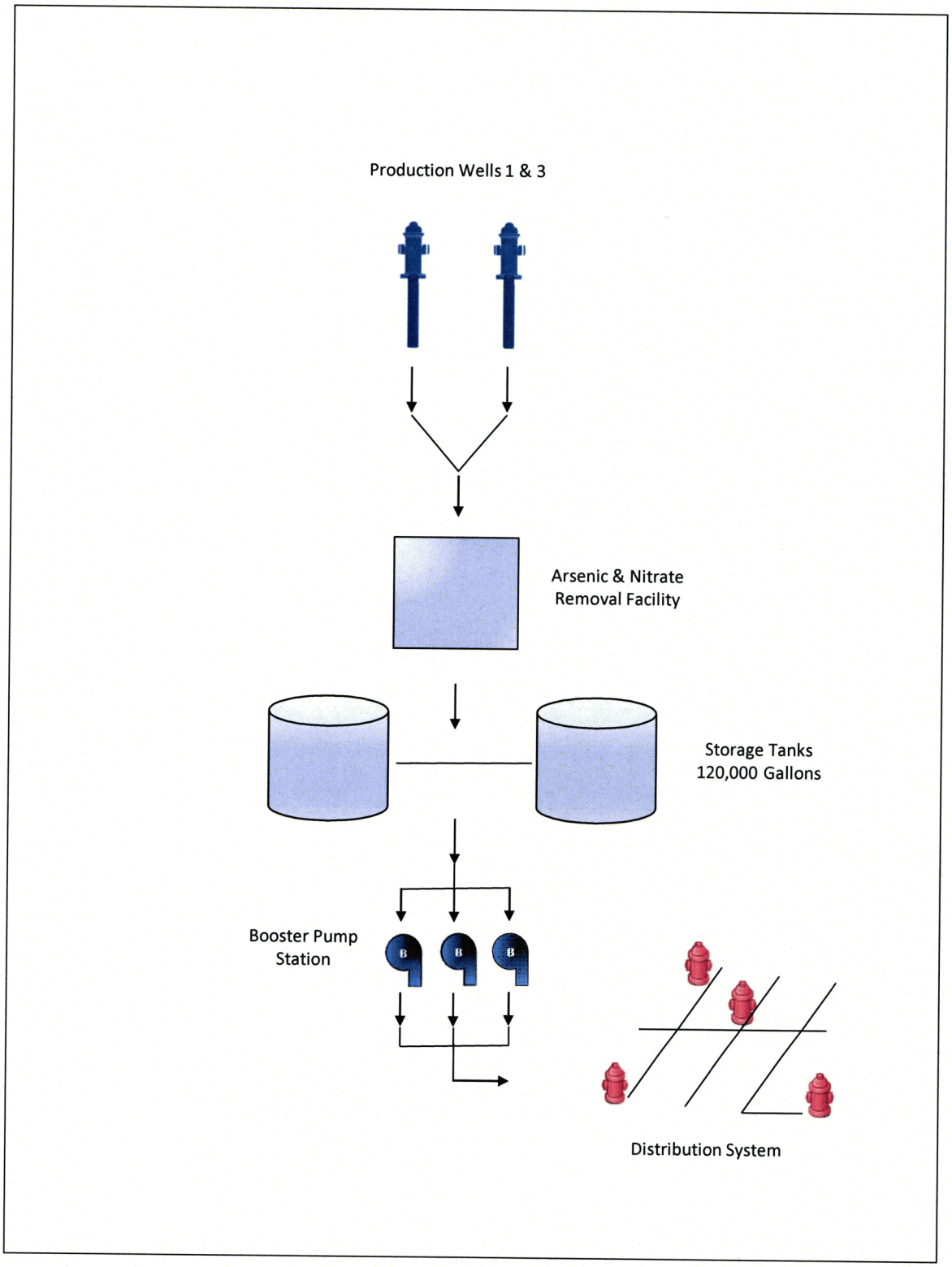


Figure 2SF. System Schematic

D. Growth

Based on customer data provided by the Company in its annual reports, it is projected that the Stanfield water system number of connections will continue to decline and is projected to have less than 190 connections by 2019. Figure 2SF depicts actual customer decline from 2002 to 2014 and projects an estimated number of connections in the service area for the next five years using linear regression analysis.

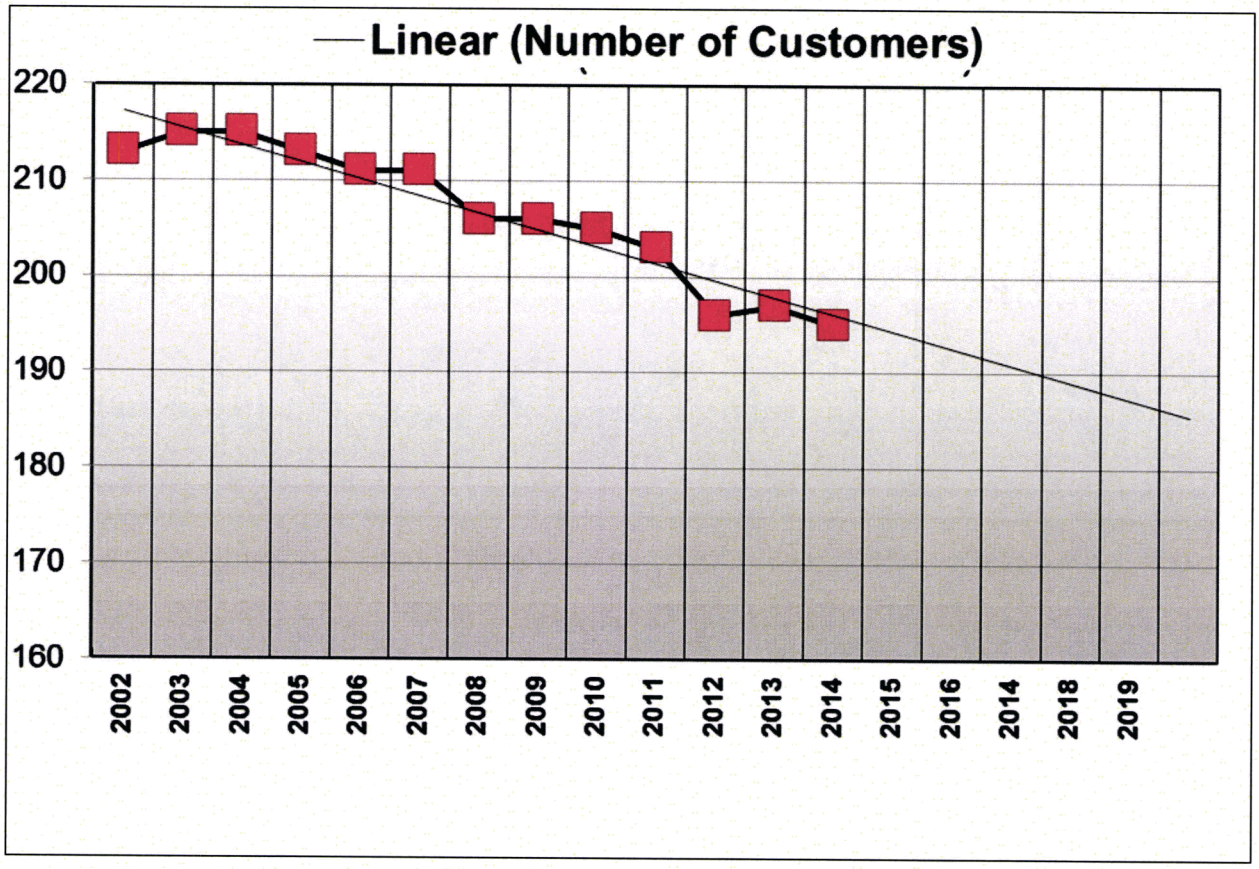


Figure 3SF. Growth Projection

5. White Tank PWS No. 07-128

A. Location and Description of the System

The White Tank ("WT") system serves the White Tank area northwest of Phoenix in Maricopa County. In addition to groundwater pumped from six wells, WT supplements its water supply by purchasing water from the Edmonton Power Corporation Water Utility Company ("EPCOR Water Arizona") during peak summer demand periods. The water system consists of six active wells, two arsenic treatment facilities, one nitrate treatment facility, one raw water cooling system, five storage tanks, nine booster pumps, five chlorination systems, one SCADA system and a

distribution system serving approximately 2,360 connections. A detailed plant facility listing is as follows:

Table 1WT. Wells

AWC Well ID	ADWR Well ID	Pump (HP)	Pump Yield (GPM)	Casing Depth (feet)	Casing Diameter (inches)	Meter Size (inches)	Pump Motor Type	Year Drilled	Water Treatment Systems
Well # 2	55-616689	30	155	477	6	3	Submersible	-	Arsenic Treatment Chlorination systems
Well # 4	55-616691	75	390	604	12	4	Submersible	1969	
Well # 8	55-584393	75	160	1000	12	4	Submersible	2001	
Well # 7	55-616693	100	410	858	20	4	Turbine	-	Nitrate Treatment
Well # 9	55-203266	250	1490	1418	16	10	Turbine	2004	Arsenic Treatment Chlorination systems
Well # 10	55-201426	200	1060	1288	16	8	Turbine	2004	
TOTALS		**730**	**3665**						

Table 2WT. Other Water Source

Description	Meter Size (inches)	Capacity (GPM)	Gallons Purchased	Water Treatment
Epcor Water Arizona Emergency Interconnect-primary (Indian School)	3	350	2,000	none
Epcor Water Arizona Emergency Interconnect – back-up (Citrus)	2	160	none	none

Table 3WT. Monte Vista Arsenic Treatment Plant[18]

Treated Wells	Plant Site	Maximum Capacity (GPM)	Manufacturer/ Vendor	Plant Placed in Operation
Wells #2, #4 & #8	Monte Vista	1,450	Layne	March 2008

Table 4WT. Blue Horizons Arsenic Treatment Plant[19]

Treated Wells	Plant Site	Maximum Capacity (GPM)	Manufacturer/ Vendor	Plant Placed in Operation
Wells #9 & #10	Blue Horizons	2,800	Siemens	2012

[18] Arsenic Treatment Plant - Coagulation/Filtration Filter Vessels and Ferric Chloride for Arsenic Removal.
[19] Arsenic Treatment Plant - Coagulation/Filtration Filter Vessels and Ferric Chloride for Arsenic Removal

Table 5WT. Nitrate Treatment Plant[20]

Treated Well	Plant Site	Maximum Capacity (GPM)	Manufacturer/ Vendor	Plant Placed in Operation
Well #7	Go Lightly	550	Layne	June 2007

Table 6WT. Storage & Pressure Tanks and Booster Pumps

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
50,000	1	5,000	3	3	1
100,000	1			5	2
500,000	1			50	3
1,000,000 1,000,000	1 1			100	3
TOTAL 2,650,000		**15,000**		**463**	

Table 7WT. Water Mains

Size (inches)	Material Type	Length (feet)
2	Various	1,610
4	Various	14,490
6	Various	170,760
8	Various	160,120
12	Various	57,990
16	Various	6,430
20	Various	380
24	Various	75
TOTAL		**411,855**

[20] Nitrate Treatment System (Pre-filter included) - Ion Exchange Filter Vessels & Sodium Chloride regenerate for Nitrate Removal.

Table 8WT. Customer Meters

Size	Quantity
5/8 x ¾ inch	1,846
¾ inch	0
1 inch	491
Compound 2 inch	20
Compound 3 inch	2
Turbo 6 inch	1
TOTAL	**2,360**

Table 9WT. Fire Hydrants

Size	Quantity
Standard	256
Non-Standard	0
TOTAL	**256**

B. Water Use

Water Sold

The Figure below represents the water consumption data for the test year ending December 31, 2014, provided by the Company in its annual report to the ACC. Customer consumption included a high monthly water use of 651 GPD per connection in July, and the low water use was 313 GPD per connection in January. The average annual use was 454 GPD per connection.

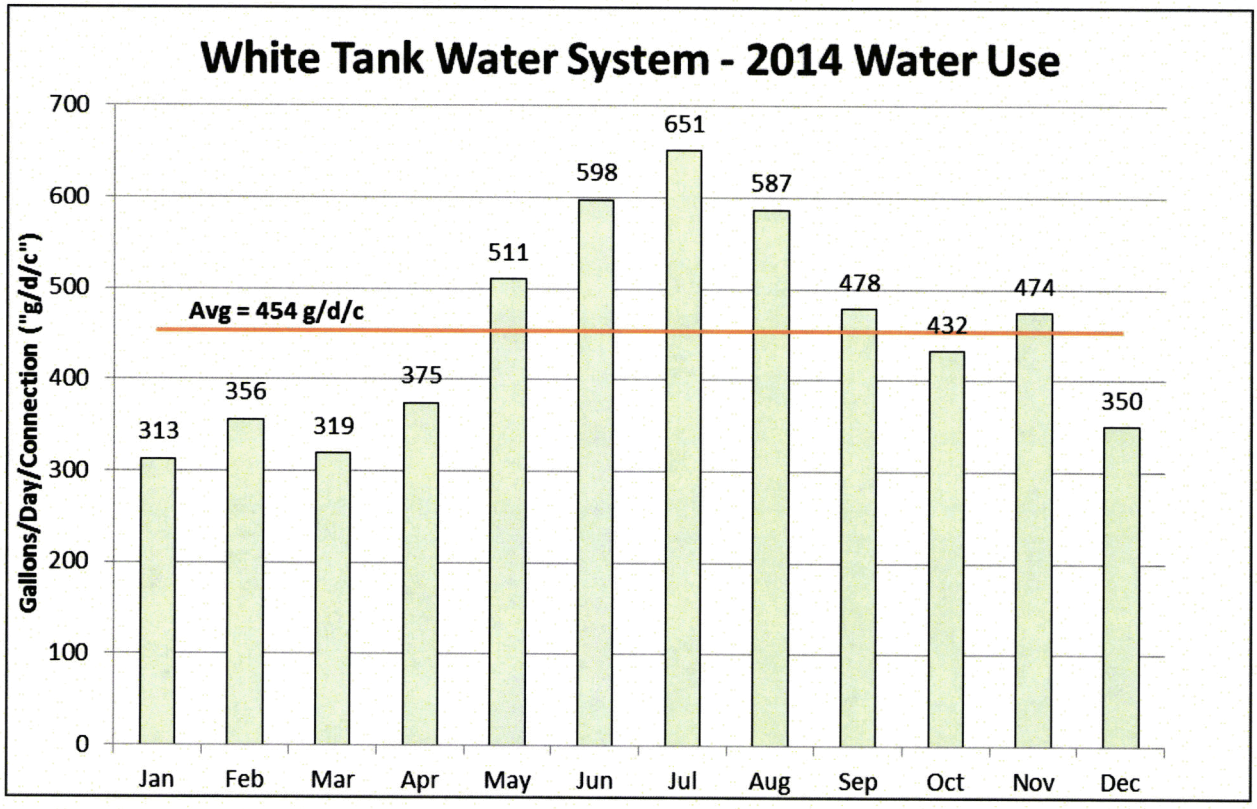


Figure 1WT. Water Use

Non-account Water

The Company reported 429,751,000 gallons pumped/purchased, 386,159,800 gallons sold and 36,736,600 gallons of authorized and non-authorized non-revenue uses for the test year, resulting in a water loss of 4.3 percent. This percentage is within the acceptable limit of 10 percent.

C. System Analysis

Based on the data provided by the Company for the Test Year, Staff concludes that the White Tank system has adequate water production and storage capacity to serve its customer base and reasonable growth. A system schematic is shown as Figure 2WT.

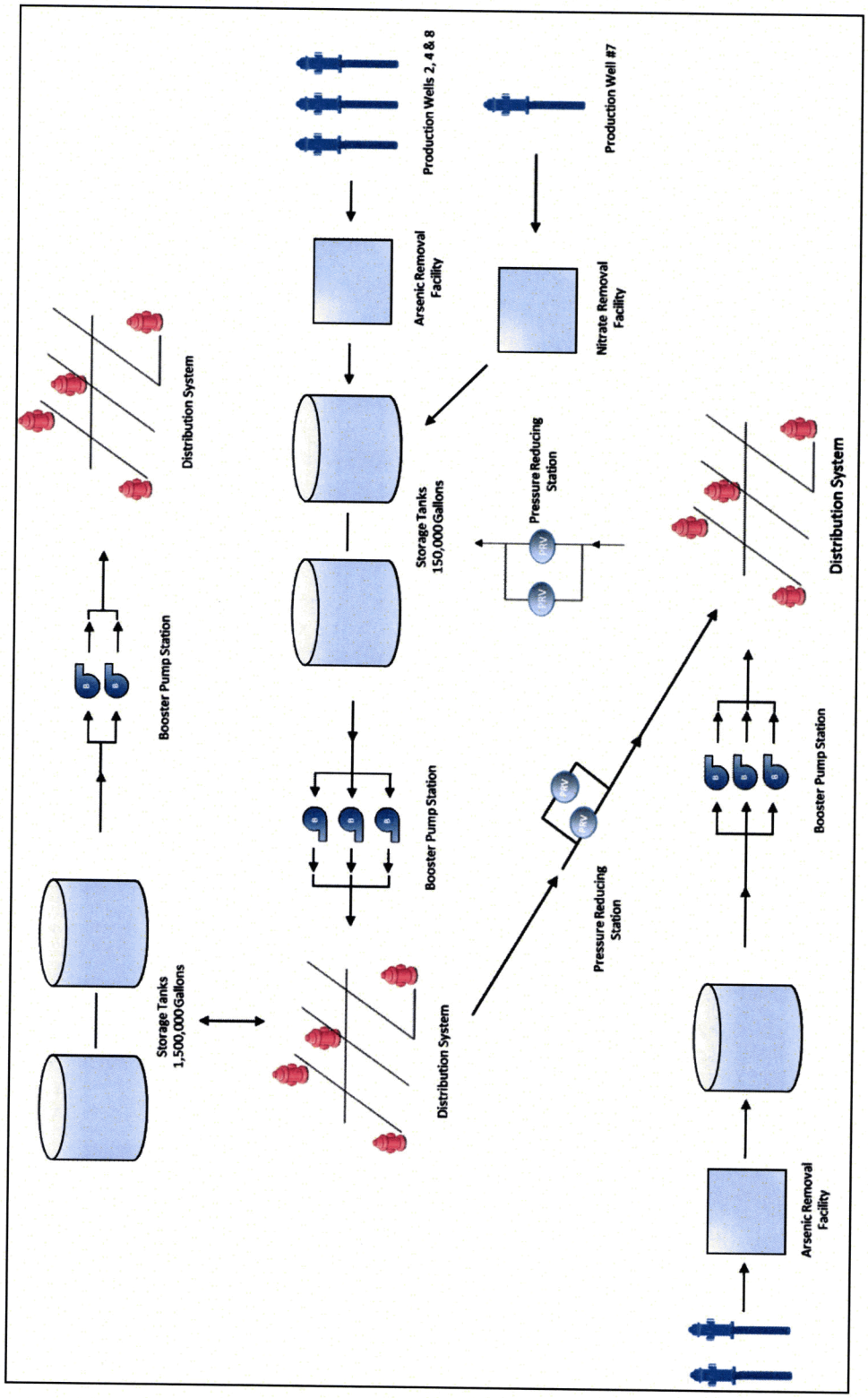


Figure 2WT. System Schematic

D. Growth

Based on customer data provided by the Company, it is projected that this system could have approximately 2,700 connections by 2019. The Figure below depicts actual growth from 2002 to 2014 and projects an estimated growth in the service area for the next five years using linear regression analysis. Staff calculations confirm that additional water production or storage capacity will not be required to meet the anticipated growth.

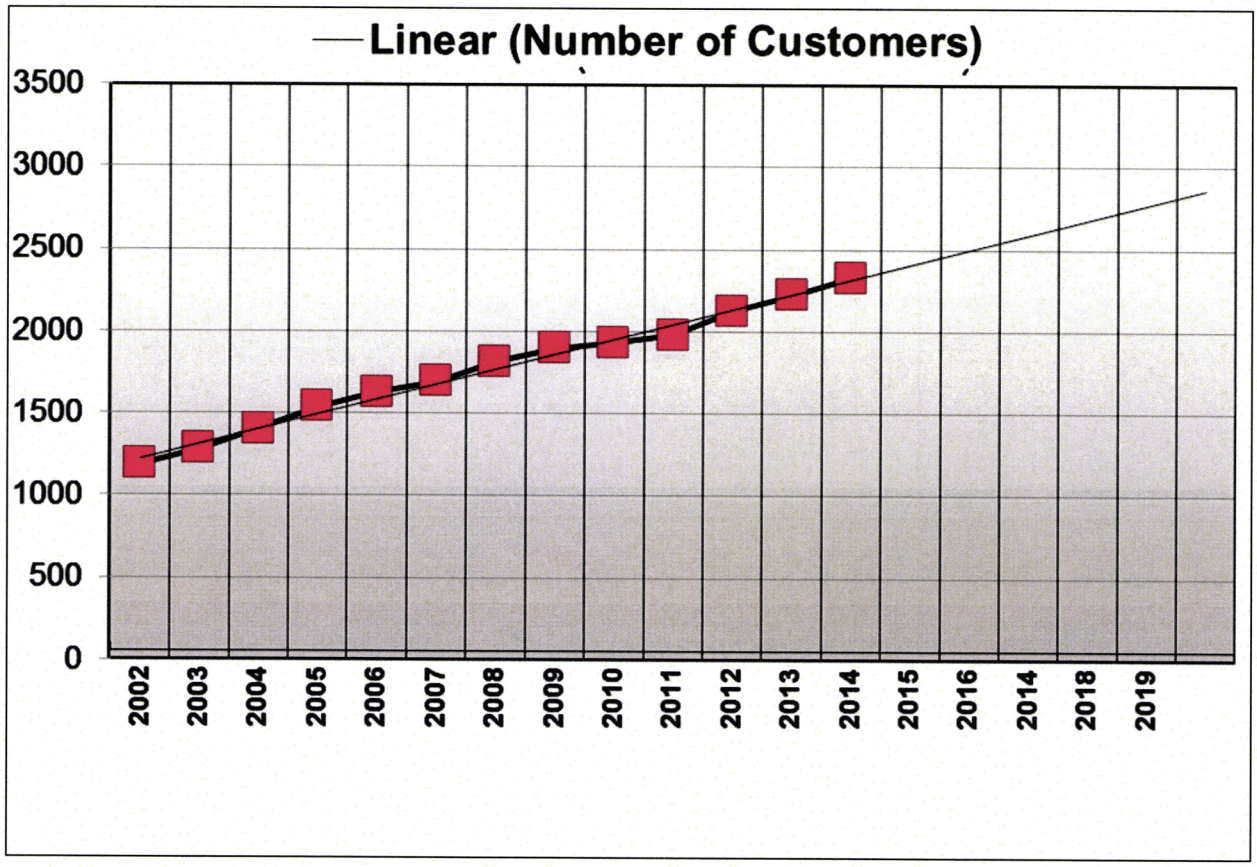


Figure 3WT. Growth Projection

6. Ajo PWS No. 10-003

A. Location and Description of the System

This system serves the Ajo area in Pima County. The Ajo system has no wells and is purchasing water from the Ajo Improvement Company[21]. The Ajo system is served by a 3-inch master-meter. The water system consists of two storage tanks, three booster pumps, upgraded chlorination system, one SCADA system and a distribution system serving approximately 650 connections. A breakdown of the plant facilities is tabulated below:

[21] Ajo is consecutive system to ACC regulated Ajo Improvement Company (PWS # 10-001).

Table 1Ajo. Wells

Wells	none

Table 2Ajo. Other Water Sources

Description	Meter Size (in inches)	Capacity (GPM)	Gallons Purchased in Test-Year	Water Treatment
Ajo Improvement Company water system	3	270	42,777,000	Chlorination System

Table 3Ajo. Storage & Pressure Tanks and Booster Pumps

Storage Tank		Pressure Tank		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
500,000*	1	-	none	15	2
250,000*	1			10	1
TOTAL 750,000				**40**	

Note*: Storage Tanks are tied together and tops of the tanks are equal in height resulting in the availability of the total capacity of 750,000 gallons. Each tank has a separate shutoff valve for maintenance purposes.

Table 4Ajo. Water Mains

Size (inches)	Material Type	Length (feet)
2	Various	4,130
3	Various	290
4	Various	41,960
6	Various	35,230
8	Various	3,090
TOTAL		**84,700**

Table 5Ajo. Customer Meters

Size	Quantity
5/8 x ¾ inch	614
¾ inch	0
1 inch	29
Compound 2 inch	4
TOTAL	**647**

Table 6Ajo. Fire Hydrants

Size	Quantity
Standard	47
Non-Standard	0
TOTAL	**47**

B. Water Use

Water Sold

Figure 1Ajo represents the water consumption data for the test year ending December 31, 2014, provided by the Company in its annual report to the ACC. Customer consumption included a high monthly water use of 202 GPD per connection in June, and the low water use was 126 GPD per connection in December. The average annual use was 163 GPD per connection.

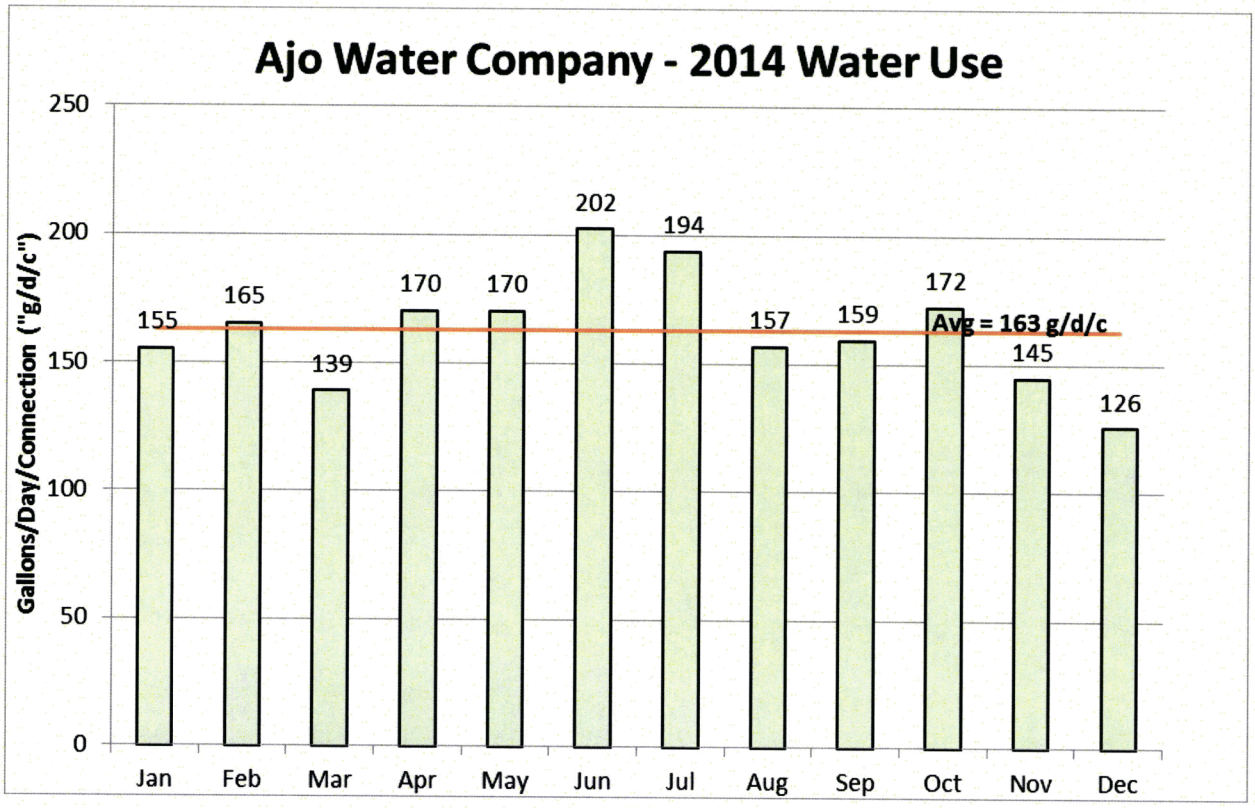


Figure 1Ajo. Water Use

Non-account Water

The Company reported 42,777,000 gallons purchased, 38,873,400 gallons sold and 2,266,400 gallons of authorized and non-authorized non-revenue uses for the test year, resulting in a water loss of 6.0 percent. This percentage is within acceptable limit of 10 percent.

C. System Analysis

Based on the data provided by the Company for the Test Year, Staff concludes that the Ajo system has adequate water supply and storage capacities to serve its customer base and reasonable growth. A system schematic is shown as Figure 2Ajo.

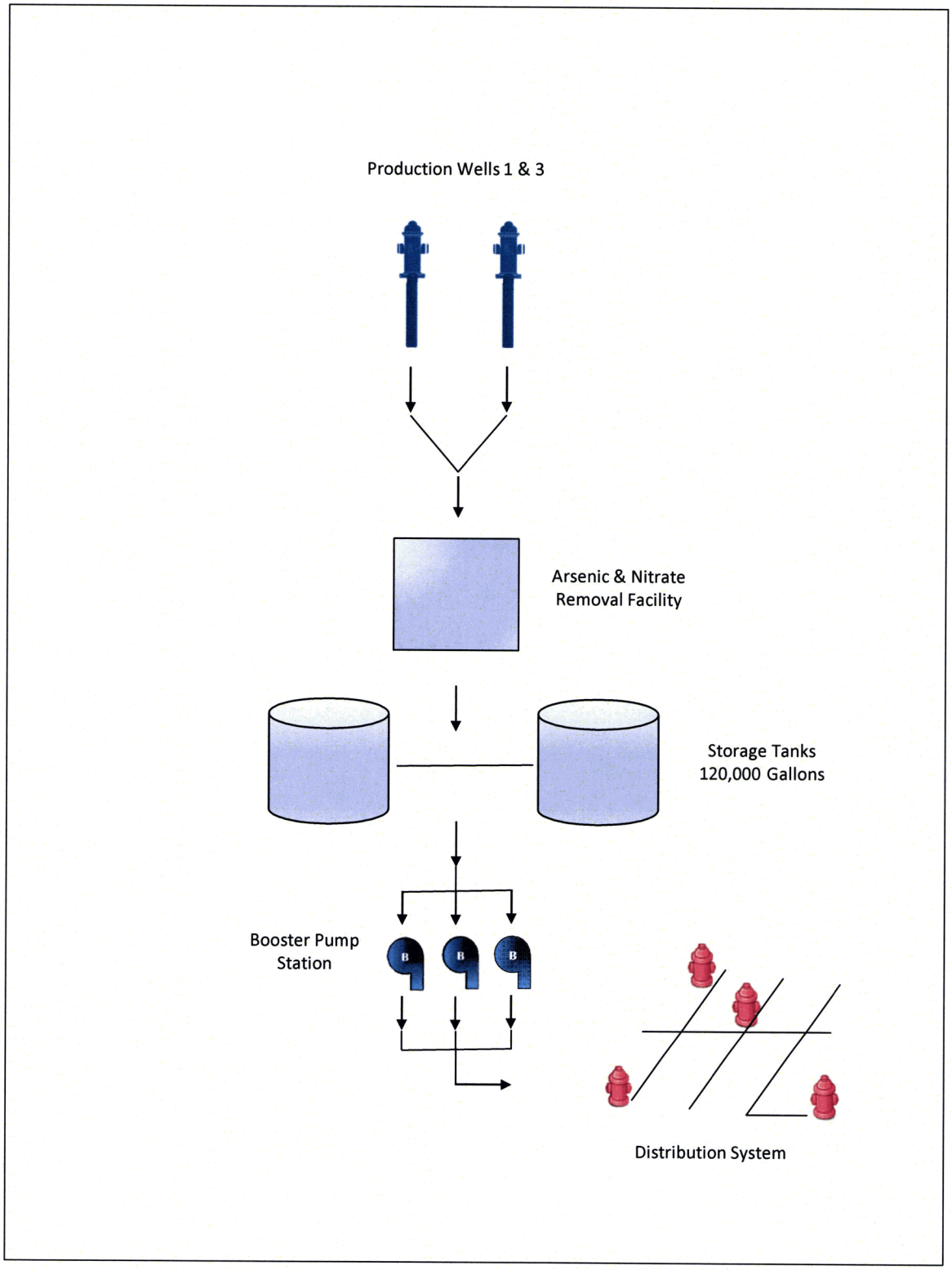


Figure 2Ajo. System Schematic

D. Growth

The Company provides water service to approximately 654 residential and commercial customers during the test year 2014. Growth has declined over the past 13 years. The Company reported serving 654 customers in 2014, historic low, and 693 customers in 2003, historic high. The Company does not anticipate any significant growth to its customer base and therefore will not require additional water purchases or storage capacity. Figure 6 depicts the customer growth using linear regression analysis. The number of service connections was obtained from annual reports submitted to the Commission.

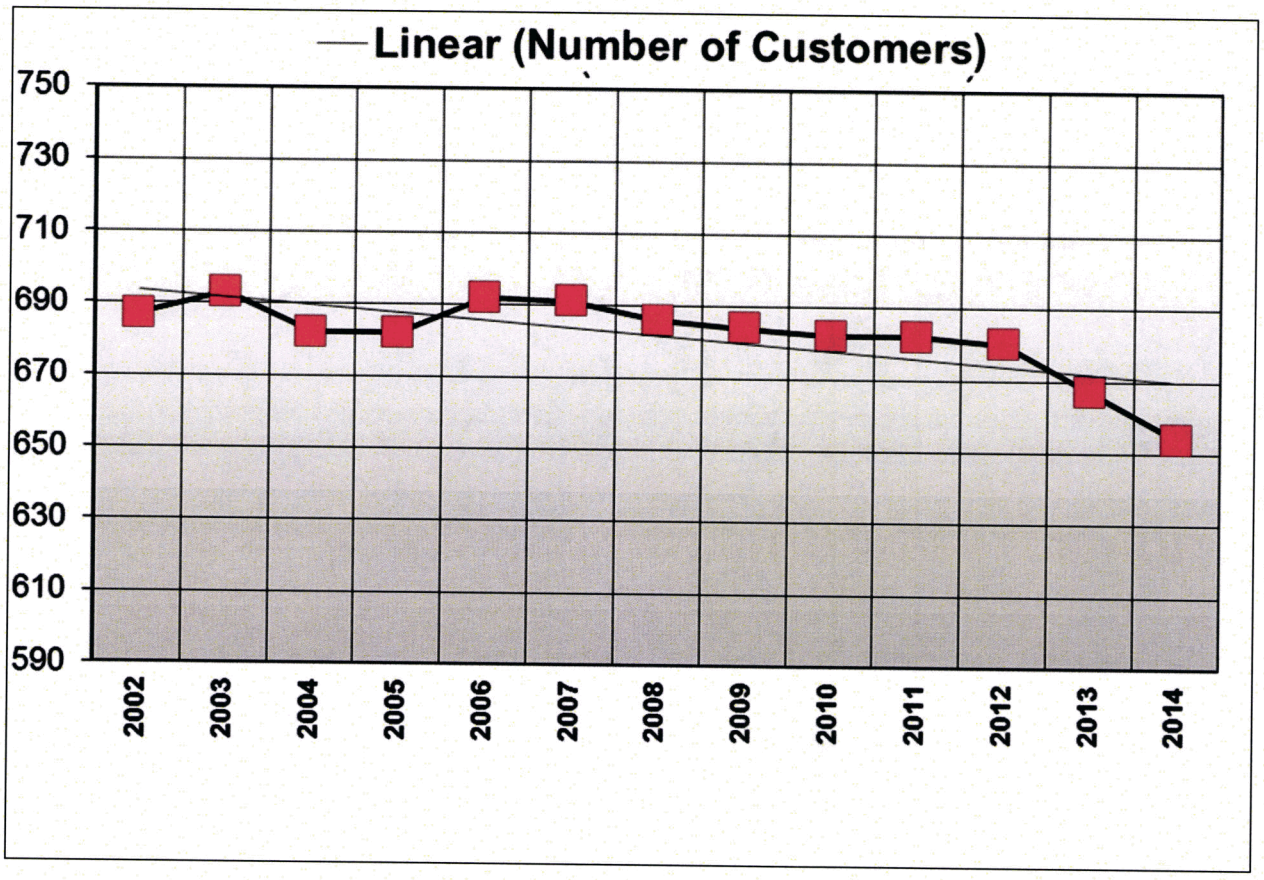


Figure 3Ajo. Growth Projection

III. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY ("ADEQ") COMPLIANCE

Compliance Status

According to the Compliance Status Reports received from ADEQ and its delegated agent, the Maricopa County Environmental Services Department ("MCESD"), who monitor community water systems for compliance, all six AWC community water systems have no major deficiencies and

have determined that these water systems are currently delivering water that meets water quality standards required by 40 CFR 141 (National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4.[22]

Water Testing Expense

Participation in the ADEQ Monitoring Assistance Program ("MAP") is mandatory for community water systems, which serve less than 10,000 persons (approximately 3,300 service connections). Because the Company is able to monitor its systems at a lower cost than the MAP, the Company has chosen not to participate in the MAP for Pinal Valley, its largest system (with more than 3,300 service connections). The Company's consecutive system, Ajo, is not required to participate in the MAP. All other AWC community systems participate in the MAP. The Company's MAP surcharge tariff has been approved in prior rate cases. The Company reported MAP surcharge revenues of $7,569 collected in 2014 and MAP expenses of $7,887, recorded in 2014 for the Western Group.[23]

The Company reported its total annual water testing expenses as $122,226, including MAP expenses, for the test year.[24] The water testing expenses were included in the "Water Treatment" operating expenses account. The Company reported its required water testing expenses for the test year at $71,417 (this amount does not include 2014 MAP costs). Staff reviewed the Company's water testing data and recommends that the Company's reported annual water testing expense of $114,082 be accepted for this proceeding as shown in Table B below.

Table B. Water Testing Expense

Water Testing	Cost
Samples taken in the distribution system.*	$22,643
Samples taken at the Entry Point to the Distribution System.*	$48,774
Special samples taken for process control or for monitoring purposes.**	$42,665
MAP	$8,144
TOTAL COST OF REQUIRED WATER TESTING (w/o MAP)	$71,417
TOTAL COST OF ALL WATER TESTING	$122,226
TOTAL COST OF WATER TESTING (w/o MAP)	**$114,082**

Note*: Samples required by the Safe Drinking Water Act/EPA/ADEQ.
Note**: Special samples not required by ADEQ/EPA. The Company conducted additional sampling/analysis for process control and monitoring purposes to insure that drinking water meets water quality standards.

[22] Per ADEQ/MCED Compliance Status Reports dated December 2015 and January 2016.
[23] Per Mr. Reiker's direct testimony on page 21. ADEQ records show that AWC paid $8,144 in MAP invoices, while Mr. Reiker testimony indicated that AWC MAP expenses were $7,887.
[24] In Data Request FS 6.1 Water Testing, Company revised its response to Data Request BAB 1.18.

IV. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR") COMPLIANCE

The Ajo system is not located in an ADWR Active Management Area ("AMA"). The Tierra Grande, Pinal Valley, Coolidge Airport and Stanfield systems are located in the Pinal AMA, and the White Tank system is located in the Phoenix AMA. According to ADEQ, the Coolidge Airport water system is categorized as non-transient non-community and therefore is not regulated by ADWR.

The ADWR has determined that all of the Company's Western Group water systems that are regulated by ADWR are currently compliant with departmental requirements governing water provider and/or community water systems[25].

V. ACC COMPLIANCE

On January 28, 2016, the Utilities Division Compliance Section stated that a check of the compliance database indicates that there are currently no delinquent compliance items for the Company.

VI. DEPRECIATION RATES

In the previous rate proceeding for the Western Group, the individual component depreciation rates developed by the Company were approved per Commission Decision Nos. 66849, 68303, 71845 and 73144. Those depreciation rates have been carried forward and proposed in this rate application. Staff recommends the adoption of the previously approved depreciation rates developed by the Company in this Western Group rate case. These rates are presented in Table C.

[25] Per ADWR Compliance Reports dated December 24, 2015.

Table C. Component Depreciation Rates

Plant Account No.	Depreciable Plant	Average Service Life (years)	AWC Developed Rates (%)
314	Wells & Springs	32	3.13
321	Pumping Plant Structures & Improvements	35	2.86
325	Electric Pumping Equipment	17	5.88
328	Gas Engines	25	4.00
331	Water Treatment Structures & Improvements	40	2.50
332	Water Treatment Equipment	35	2.86
341	Transmission/Distribution Structures	30	3.33
342	Storage Tanks	50	2.00
343	Transmission/Distribution Mains	56	1.79
344	Fire Sprinkler Taps	50	2.00
345	Services	42	2.38
346	Meters	22	4.55
348	Hydrants	55	1.82
390	General Plant Structures	40	2.50
391	Office Furniture & Equipment	15	6.67
393	Warehouse Equipment	20	5.00
394	Tools, Shop & Garage Equipment	25	4.00
395	Laboratory Equipment	20	5.00
396	Power Operated Equipment	15	6.67
397	Communication Equipment	15	6.67
398	Miscellaneous Equipment	30	3.33

VII. OTHER ISSUES

Service Line and Meter Installation Charges

The Company has requested changes in its service line and meter installation charges. These charges are refundable advances. According to the Company, its current general service tariff does not offer a rate for a 3/4-inch or 1-1/2-inch size meters. Also, the Company proposes to update its refundable charges for service lines two inches and smaller to reflect the service line installation charges recommended by Staff.[26] The Company also proposes to add clarifying language to the existing footnote stating that parties are required to pay the actual cost of 5/8-inch through 2-inch service lines when cutting a roadway or sidewalk is required. Lastly, in order to more equitably apportion the cost of deploying the Company's automated meter reading ("AMR") program, the Company proposes to charge the actual cost of meter installations of all sizes. The requested service

[26] Staff memorandum "UPDATE OF STAFF'S TYPICAL SERVICE LINE AND METER INSTALLATION CHARGES", dated November 26, 2013.

line charges are at the high end of Staff's recommended range for service line charges. Staff recommends the acceptance of the Company's requested installation charges as shown in Table D.

Table D. Service Line and Meter Installation Charges

Company's Current Charges[27]				Company's Requested/Staff Recommended Charges		
Meter Size	Service Line Charges**	Meter Charges	Total Charges**	Service Line Charges**	Meter Charges	Total Charges**
5/8"x 3/4"	$445	$155	$600	$565	Actual Cost	Varies
¾"	N/A	N/A	N/A	$565	Actual Cost	Varies
1"	$495	$315	$810	$629	Actual Cost	Varies
1-1/2"	N/A	N/A	N/A	$699	Actual Cost	Varies
2"- Turbine 2"- Compound	$830 $830	$1,045 $1,890	$1,875 $2,720	$1,054 $1,054	Actual Cost	Varies Varies
3"- Turbine 3"- Compound	$1,045 $1,165	$1,670 $2,545	$2,715 $3,710	Actual Cost	Actual Cost	Actual Cost
4"- Turbine 4"- Compound	$1,490 $1,670	$2,670 $3,645	$4,160 $5,315	Actual Cost	Actual Cost	Actual Cost
6"- Turbine 6"- Compound	$2,210 $2,330	$5,025 $6,920	$7,235 $9,250	Actual Cost	Actual Cost	Actual Cost
8"- Turbine 8"- Compound	$2,210 $2,330	$5,025 $6,920	$7,235 $9,250	Actual Cost	Actual Cost	Actual Cost
10"- Turbine 10"- Compound	$2,210 $2,330	$5,025 $6,920	$7,235 $9,250	Actual Cost	Actual Cost	Actual Cost
				**Note: Amount will be adjusted to include the actual cost incurred when boring under a road or highway is required.		

Curtailment Plan Tariff

The Company has an approved curtailment tariff with an effective date of July 23, 2004.

Backflow Prevention Tariff

The Company has an approved backflow prevention tariff with an effective date of October 12, 2015.

[27] Decision No. 73144

Best Management Practices ("BMPs")

In Commission Decision No. 71845, dated August 24, 2010, the Company was ordered to submit BMPs for its water systems. In compliance with the Commission's Decision the Company submitted its proposed BMPs with an effective date of May 1, 2013. Table E lists the approved BMP tariffs applicable to the Company's systems.

Table E. Approved Bmp Tariffs

Tariff No.	Tariff Description
BMP-101	Public Education Program
BMP-2.3	New Homeowner Landscape Information
BMP-3.1	Residential Audit Program
BMP-3.2	Landscape Consultations (Residential/Non-Residential
BMP-3.6	Customer High Water Use Inquiry Resolution
BMP-3.7	Customer High Water Use Notification
BMP-3.8	Water Waste Investigations and Information
BMP-4.1	Leak Detection Program
BMP-4.2	Meter Repair or Replacement

Post-Test Year Installations ("PTY")

The Company proposes to include PTY utility plant additions in rate base for the Tierra Grande, Pinal Valley, Coolidge Airport, Stanfield and White Tank water systems as well as for the Company's Phoenix Office. According to the Company the utility plant additions include revenue-neutral projects which provide for the provision of service to existing customers and do not include projects for the purpose of serving future customers or expansion of system capacity. In order for a PTY project to be accepted into the current rate application the project must be completed and in-service by December 31, 2015[28]. The following table shows the proposed PTY projects with costs and project status.

[28] Staff agreed to consider the Company's proposed PTY addition if the addition was completed and in-service by December 31, 2015.

Table F. Used and Useful Post-Test Year Plant Installations

WS/Project Title	Project No.	Project Description	Total Cost, $	In-Service Date
All/Electrical	5173	Relocate motor saver displays, well timers & other controls from panel interior to exterior doors. Repair starter reset plungers, install shielding over exposed conductors & switches. Electrical Safety Improvements.	103,598[29]	12/31/14
PV/Arizona Grain	5076	Lower and replace ~460 LF of 6" CA w/6" DIP and related fittings along the UPRR rail line.	195,574	12/23/14
PV/Wells No. 9 & 10 BPS	5164	Design and construct vertical Booster Pump Station (2 motor/pumps) at Vacuum Tank Site.	126,887	12/8/15
PV/Security Block Walls	5165	Design, permit and construct security blocks walls at wells 21, 30 & 31. Construct retention basins at well 26 & 31.	417,446	1/12/15
PV/Valley Farms ARF	5167	Design and construct an ARF at Valley Farms for wells 1 & 2.	1,332,446	7/8/15
PV/Highway 84 Gate Valves	5168	Install 3 line stops & construct 4-16" gate valves along Gila Bend Highway 84 between VIP Blvd & Thornton Rd.	115,552	7/20/15
PV/Overfield Road	5169	Replace ~3,900 LF of 6" PVC along Overfield Rd. w/4,000 LF of 12" DIP.	408,414	5/21/15
PV/Cottonwood BPS & Tank	5170	Reconstruct the Cottonwood Lane ST & BPS.	1,270,570	7/23/15
PV/Cottonwood & Peart	5171	Replace ~2,800 LF of 12" along Cottonwood Ln. from Arizola to Peart Rds. w/~2,800 LF of 12" DIP.	551,402	4/15/15
PV/Well 33 Pump	5251	Pull & replace well 33 pump, column pipe, tube/shaft & lower pump ~100 ft.	245,968	1/22/15
PV/Well 29 Disinfection Tank	5260	Replace leaking sodium hypochlorite tank.	20,645	9/28/15
PV/Well 19 Pump	5296	Replace well pump & related equipment	242,450	9/14/15
PV/Wells 9 & 10 Access Road	5299	Construct new access road to well 9 & 10 and BPS and 90 LF of chain-link fencing.	76,569	12/14/15
PV/Well 33 Flush Piping	5301	Construct ~1,500 LF of 12" DIP along Hancock Trail from Well 33 to Hacienda Rd.	194,840	6/6/15

[29] According to Mr. Schneider, "Electrical Panel Safety Improvements were completed in 2014 but the payment for the work was paid in mid-2015. Therefore, it was considered post year plant." Email from Mr. Schneider to Staff, December 17, 2015.

PV/Wells 32 & 33 Nitrate Analyzers	5303	Design & install online nitrate analyzers & electrical controls at wells 32 & 33.	173,112	6/5/15
PV/Well 27 Booster Pump	5304	Install an additional 60 hp 500 gpm booster pump, starter panel & new suction & discharge headers at well 27 BPS.	107,751	12/31/15
PV/Wells 9 & 10 Auto Strainer	5307	Construct a 3rd auto strainer for wells 9 & 10. Both wells produce a large amount of sand exceeding current sand removal capacity.	42,163	7/1/15
PV/Cameron & Morrison Ave WL Replacement	5329	Construct 85 LF of 4" WL, replace 3-4" gate valves, 2-4"tees & 1-fire hydrant on 4th street between Cameron & Morrison Ave's in Casa Grande.	20,780	2/12/15
PV/Casa Grande Mountain	5332	Replace 140 LF of 36" CLC Transmission main w/140 LF of 36" DIP on Casa Grande Mountain south of I-8 at Peart Rd.	299,926	5/5/15
PV/SR 87 & AZ Blvd Asphalt Replacement	5339	Replace leaking water service and construct 110 ft x 11 ft asphalt patch to replace temp patch on AZ blvd (SR-87) south of Verde Lane in Coolidge.	57,381	5/21/15
PV/Cholla Str Asphalt Replacement	5341	Replace leaking water service and construct 110 ft x 11 ft asphalt patch & 1-concrete sidewalk to replace temp patch on Pinal Ave (SR-387) & Cholla Str in Casa Grande.	35,165	6/20/15
PV/Replace WL at 2nd & Morrison Ave	5344	Construct ~25 LF of 8" DIP WL, 1-4" gate valve & 1-6" gate valve to replace 25 LF of 8" CL WL at 2nd Str & alley west of Morrison Ave.	25,368	6/18/15
PV/Casa Grande Asphalt	5345	Construct 13 LF of 8" DIP to replace 8" CA & 44 ft x 78 ft asphalt & 28 LF of sidewalk & curb at 1955 North Casa Grande Ave.	56,452	8/4/15
PV/Burgess Peak Radio	5348	Install redundant radio system, solar shield, fan & filter kit and surge arrestor at Burgess Peak SCADA radio repeater.	19,377	7/23/15
PV/Well 26 Pump Replacement	5358	Replace well pump & related equipment, also perform brushing & bailing well 26.	124,002	8/10/15
PV/Well 27 Pump Replacement	5359	Replace well pump & related equipment, also perform brushing & bailing well & install packing at well 27.	134,254	12/16/15
PV/Coolidge Tank	5361	Construct 16" overflow & replace cathodic protection on the elevated storage tank in Coolidge.	79,622	7/8/15
PV/Well 31 Pump	5362	Replace well pump & related equipment, also perform brushing & bailing well 31.	74,910	11/26/15

Replacement				
Pinal Valley	Blanket Projects	Replacement of Electric Pumping Equipment, Transmission & Distribution Mains, Service Lines, Meters, Fire Hydrants, Office Furniture & Equipment, Tools, Shop & Garage Equipment.	630,270	Unknown
SF/Booster Pump Station	5306	Install an additional 30 HP Booster Pump and Starter and Upgrade Transformers.	40,759	6/30/15
WT/SCADA	5032	Construct Phase 1 of White Tank SCADA system. Install SCADA System at the Monte Vista ARF.	345,165	6/1/15
WT/Citrus & I-10	5263	Install ~230 LF of 6" DIP & Relief Valve along Citrus Road.	57,524	2/3/15
WT/Blue Horizon Chemical Injection	5309	Replace 16" DIP fittings and valves at the chemical injection point in the Blue Horizon ARF.	54,187	4/21/15
WT/BAE Tank	5360	Replace the interior ladder and construct 12" overflow pipe to replace a 6" overflow pipe at the 500,000 gal BAE Storage Tank.	18,004	4/13/15
White Tank	Blanket Projects	Replacement of Electric Pumping Equipment, Transmission & Distribution Mains, Service Lines, Meters, Fire Hydrants, Office Furniture & Equipment, Tools, Shop & Garage Equipment.	89,956	Unknown
Ajo	Blanket Projects	Replacement of Transmission & Distribution Mains, Service Lines, Meters, Office Furniture & Equipment, Tools, Shop & Garage Equipment.	15,951	Unknown
Tierra Grande	0076	Pilot study to test the efficiency of Automatic Meter Reading ("AMR") devices.[30]	125,690	5/31/15
Phx/Server Replacement	5326	Replace the anti-virus and patch servers and migrate Active Directory to new server.	25,444*	11/20/15
Phoenix Office	Blanket Projects	Replacement of Office Furniture & Equipment.	42,397	Unknown
Meter Shop	Blanket Projects	Replacement of Office Furniture & Equipment and Tools, Shop & Garage Equipment.	2,099	Unknown
TOTAL POST-TEST YEAR COST			**$7,219,397****	

Note: feet ("ft."), horsepower ("hp"), gallon ("gal."), gallon per minute ("gpm"), Polyvinyl Chloride ("PVC"), Water System ("WS"), Not Available ("N/A"), Lineal Feet ("LF"), inch ("), Arsenic Removal Facility ("ARF"),

[30] The Company is testing AMR devices manufactured by Sensus, Neptune and Badger.

Cement Asbestos ("CA"), Ductile Iron Pipe ("DIP"), Booster Pump Station ("BPS"), Storage Tank ("ST"), approximately ("~"), Union Pacific Railroad ("UPRR"), Road ("Rd"), Waterline ("WL"), Avenue ("Ave"), Concrete Lined Cylinder ("CLC"), State Route ("SR"), Street ("Str"), temporary ("temp"), Cast Iron ("CI"), Beautiful Arizona Estates ("BAE"), Phoenix Office ("Phx"), Internet Protocol ("IP"),
Note*: Unknown total cost. Invoices outstanding.
Note**: Does not include Blanket Projects

Total cost of $103,598 for electrical safety improvements completed for the Pinal Valley Group (Tierra Grande, Pinal Valley, Coolidge Airport and Stanfield water systems) only. Each water system had different amounts of electrical improvements completed and therefore total cost of work per water system is unknown and not available as AWC did not complete an account breakdown per water system.[31] Staff concludes that the PTY capital improvement projects listed in above Table F, totaling $8,000,070, are currently in operation and are used and useful to the water systems provision of service. Also, the projects were completed and in-service by December 31, 2015.

System Improvement Benefits Mechanism ("SIB")

In Decision 71845 the ACC ordered the Company to reduce water loss for each of its water systems to less than 10 percent. The Company has complied with the order and all water systems in the Wester Group have water loss less than ten percent. The Company has approved SIBs for its Eastern and Northern Groups and is proposing a SIB for its Western Group. According to the Company a SIB is required because the water loss in the Western Group is trending upward in the Pinal Valley and White Tank water systems and the aging water mains and service lines are increasingly failing and causing water loss beyond the Company's ability to control solely through repair or maintenance efforts. In its application the Company stated that it is more efficient and cost effective to keep water loss below 10 percent by replacing aging infrastructure in a timely fashion rather than let water loss increase above 10 percent before beginning to replace failing infrastructure. The Company's plan identifies the need to increase the rate of replacing aging infrastructure, however the Company believes that the level of investment will have a significant negative effect on the Company's financial performance without the SIB mechanism.

The Western Group has approximately 4.2 million feet of water mains in service and variety of piping materials have been used. In the 1920s cast iron ("CI") water mains were predominate while cement asbestos ("CA") was first used in the 1930s with ductile iron ("DI") and polyvinyl chloride ("PVC") were first used in the 1980s and are mostly used in the Western Group for new water main construction since 1986.[32] The Company has developed an aging infrastructure replacement plan that includes 88 specific projects which included estimated costs per project. However the Company did not provide a project prioritization schedule or propose a 3 or 5 year cost expenditure schedule. The Company also expressed to Staff the Company's inability to complete the proposed projects within 5 years.[33] Table G displays the proposed SIB aging

[31] Total cost for Western Group Electrical Safety Improvements was $103,598. Mr. Schneider email to Staff, dated December 29, 2015, stated "Since it is one rate system for Pinal Valley, we do not have the accounting breakdown for each water system. For economies of scale and to get better pricing, the work was bid as a package."
[32] Mr. Schneider testimony, Exhibit FKS-13 Executive Summary.
[33] Staff discussion with the Company at the Company's office on January 15, 2016.

infrastructure replacements costs per water system. Table H shows and compares the water losses between 2013 and test-year 2014.

Table G. Infrastructure Replacement Costs

Water System	Cost Estimate
Pinal Valley	$48,110,000
White Tank	$7,141,000
Ajo	$559,000
TOTAL ESTIMATED COST	$55,810,000

Table H. Water Loss Per Water System

Water System	Water Loss	
	2013	2014
Tierra Grande	5.59%	4.01%
Pinal Valley	8.53%	9.48%
Coolidge Airport	6.33%	5.11%
Stanfield	7.29%	6.52%
White Tank	3.53%	4.54%
Ajo	6.21%	7.67%

Staff recommends that the Company requested SIB not be approved at this time due to the lack of project prioritization and cost schedule, the inability of the Company to complete proposed projects within a reasonable timeframe and water loss being less than 10 percent for all water systems.

Nitrate Cost Recovery Mechanism ("NCRM")

The Pinal Valley water system has four Wells (Well Nos. 7, 27, 32 & 33) that produce water with high levels of nitrates. At this time Well No. 27 is over the Maximum Contaminant Level ("MCL") while Wells 7, 32 & 33 are approaching the nitrate MCL. The White Tank water system is the only other Western Group water system that has nitrate issues at this time. The Company is closely monitoring four other Pinal Valley water system wells (10, 14, 19 & 24). Each well is being blended with other non-nitrate or low nitrate water quality wells and the Company does not know when or if additional NRF's will be required. In order to comply with the Safe Drinking Water Act

("SDWA") standards, the Company plans on constructing four nitrate removal facilities ("NRF") for the Pinal Valley wells that are high in nitrates.

The Company estimates the four NRFs will cost $18.9 million[34]. Initially the Company is planning to construct a NRF beginning in 2016 at Well No. 33. This facility's estimated cost is $6.5 million and will cost $1.8 million each year to operate and maintain. According to the Company an NCRM is needed due to constructing, operating and maintaining four NRFs that require high capital investment and significant operating expense and without an NCRM will divert capital from other critical projects. From an engineering point of view, Staff believes that the NRF installations are necessary. See Briton Baxter testimony, ACC Public Utilities Analyst IV, for Staff's recommendation of the requested NCRM. Table I shows the anticipated construction schedule and cost for each NSF.

Table I. Proposed Nitrate Removal Facilities

Well No.	Nitrate Level (As-of April 2015), mg/L	Proposed Construction Start	Proposed In-Service	Estimated Cost, $
7	9.13	2019	2020	3,470,000
27	12.30	2018	2019	2,380,000
32	9.92	2017	2018	6,529,000
33	9.72	2016	2017	6,529,000
			TOTAL ESTIMATED COST	**18,908,000**

Arsenic Cost Recovery Mechanism ("ACRM") Continuation

Currently, the Arizona City portion of the Pinal Valley water system has only one source (Well No. 28) and if that source fails the Tanger booster pump station does not have the capacity to supply the max day demand. Therefore the Company concludes an additional source of supply to Arizona City is required. The Company plans on utilizing Well No. 34 as an additional source. Well No. 34 is located within Arizona City, however the water quality does not meet SDWA standards for arsenic.[35] The Company plans on constructing an arsenic removal facility ("ARF") for Pinal Valley water system Well No. 34 to reduce arsenic levels to comply with SDWA standards. The Company anticipates the project will be completed by the end of 2016 at an estimated cost of $3.4 million.

In Decision No. 73144 the Commission authorized the Company to make new ACRM filings for new arsenic treatment plants and upgrades to existing plants in its Western Group. The Company requests continuation of the ACRM to recover the costs to construct and operate the ARF at Well No. 34. The Company also requests continuation of the ACRM to recover the cost of other arsenic removal facilities. Specifically, the ARF's at Valley Farms Well No. 2 and at Pinal Valley Well No. 13 and the Point of Use ("POU") devices at the Coolidge Airport. The ARF at Valley Farms was completed and in service July 2015. The ARF at Well No. 13 and POU devices are not complete but the Company anticipates completion by the end of 2016. From an engineering point of view, Staff believes that the installations of the ARF's and POU devices are necessary. See

[34] Direct Testimony of Mr. Schneider, page 107.
[35] The arsenic level of Well No. 34 is approximately 50 ppb.

Briton Baxter testimony, ACC Public Utilities Analyst IV, for Staff's recommendation of the ACRM continuance.

VII. OFF-SITE FACILITIES FEE TARIFF

White Tank water system

In its White Tank 2015 CAP Use Plan ("WT 2015 CAP Plan") filed on August 7, 2015 in this docket, the Company outlines its plan to deliver CAP water to its customers through the White Tank Underground Recharge and Recovery Facility ("URRF") the Company plans on constructing. In the rate application, the Company requested an Off-Site Facilities Fee ("OSFF") of $2,500 for each new residential service connection with a 5/8 x 3/4-inch meter and 3/4-inch meter in its White Tank water system. The fee increases for larger meter sizes. The OSFF will equitably apportion the costs of constructing off-site facilities needed to provide water production, treatment, delivery, recharge and recovery, storage and pressure facilities among all new White Tank customers whose water supply requirements make these facilities necessary. More specifically, the fee will be used to fund the Company's White Tank URRF. The Company holds a Central Arizona Project ("CAP") water allocation totaling 968 acre-feet per year. The Company's estimated cost to construct the URRF is $2.641 million and anticipate to be in-service by late 2018. The fee will be applicable to all new service connections in the White Tank service area.[36] The Company based the OSFF on the following table.

Table J. Estimated New Customers Required

Year	No. of Customers	Customers Added/Year	Annual Fees	Cumulative Fees
2016	2,657	329*	340,000	340,000
2017	2,800	143	357,500	697,500
2018	2,951	151	377,500	1,075,000
2019	3,110	159	397,500	1,472,500
2020	3,278	168	420,000	1,892,500
2021	3,455	177	442,500	2,335,000
2022	3,642	187	467,500	2,805,500
Number of New Connections added since 2014		**1,314 or 43%**		

Note*: Company estimates that the water system will add 329 new connections by the end of 2016 over the 2014 total.

Based on the Company's estimated cost of $2.641 million to fund the Company's White Tank URRF, Staff concludes that the proposed Facilities Fee of $2,500 for a 5/8" x 3/4" meter is

[36] Direct Testimony of Mr. Joseph D. Harris ("Mr. Harris"), AWC Vice President and Treasurer, page 10. Exhibit JDH-4 shows the estimated funds needed by meter size and a projection of the amount to be collected and expended to construct the necessary off-site facilities.

reasonable. Staff recommends adoption of the White Tank 2015 CAP Use Plan and Off-site Facilities Fee Tariff attached as Exhibit A.

Pinal Valley water system (CAP Water)

In Decision No. 73144 the Company was granted an Off-Site Facilities Fee ("Facilities Fee") of $3,500 for each new service connection with a 5/8 x 3/4-inch meter in its Pinal Valley water system to fund the Pinal Valley regional surface water treatment plant ("PV CAP Plant") and the necessary transmission and distribution mains, storage tanks and booster systems needed to treat, store and pump water in order to meet the needs of future growth in this area. The Company estimated cost to design and construct Pinal Valley CAP treatment Plant, with a treatment capacity of the 10 million gallon per day[37], and all related infrastructure facilities is $94 million.[38]

In its Pinal Valley 2015 CAP Use Plan ("2015 CAP Plan") filed on August 7, 2015 in this docket the Company updated the 2006 CAP Use Plan. The 2015 CAP Plan outlines the Company's plan to deliver CAP water to its customers through its Pinal Valley Recharge and Recovery Facility ("PVRRF") it plans on constructing beginning in 2016. Prior to constructing the PVRRF the Company will store CAP water on an interim basis at groundwater savings facilities operated by Central Arizona Irrigation and Drainage District, Hohokam Irrigation and Drainage District and Maricopa-Stanfield Irrigation and Drainage District. The Company will utilize recovery wells to deliver CAP water to general service customers throughout the Pinal Valley service area. The estimated cost of the PVRRF is approximately $6 million. The Company plans on funding the design and construction of the PVRRF primarily with OSFF. The Company requests that the OSFF approved in Decision 73144 be revised to include PVRRF instead of the PV CAP Plant.

Based on the Company's design change from CAP water treatment to CAP water recharge and recovery and the huge cost savings of approximately $88 million. Staff recommends the adoption of the Pinal Valley 2015 CAP Use Plan and revised specific tariff language contained in Exhibit B of this report.

Pinal Valley water system (Fire Sprinklers)

The Company is also requesting a change to the OSFF approved tariff in Decision 73144. To accommodate residential homes with fire sprinkler systems the Company is proposing the same OSFF for residential customers with a 3/4-inch meter as a residential customer with a 5/8 x 3/4-inch meter ($3,500).[39] Staff concludes that the proposed OSFF change for the residential 3/4-inch meter is reasonable as proposed and included in Exhibit B.

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[37]The Company's Pinal Valley service area has a combined annual CAP allocation of 10,884 acre-feet.
[38] The Company's 2014 cost estimate is $94 million and $82 million in its 2010 test year Western Group rate case, the initial 2006 cost estimate ranged from $34 to $66 million.
[39] Direct Testimony of Mr. Harris, page 13 and DRAFT Off-Site Water Facilities Fee Table, page 2 of 4, Section JDH-7.

TARIFF SCHEDULE

UTILITY: Arizona Water Company
(White Tank water system)
DOCKET NO. W-01445A-15-0277

DECISION NO. _____
EFFECTIVE DATE: _____

OFF-SITE FACILITIES FEE

I. Purpose and Applicability

The purpose of the off-site facilities fees payable to Arizona Water Company ("the Company") pursuant to this tariff is to equitably apportion the costs of constructing additional off-site facilities necessary to provide water production, treatment, delivery, recharge, recovery, 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.

"CAP Water" means water from the Central Arizona Project provided directly or indirectly to the Company.

"Company" means Arizona Water Company.

"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 water treatment facilities, including treatment of CAP Water and other available water supplies, recharge and recovery facilities, storage tanks and related appurtenances and equipment necessary for proper operation of such water treatment facilities, including engineering and design costs. Offsite facilities may also include booster pumps, wells for recovery of stored CAP water or other groundwater supplies, pressure tanks, transmission mains and related

appurtenances and equipment necessary for proper operation of such facilities 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 or commercial, industrial other uses, regardless of meter size.

III. Off-Site Water Facilities Fee

For each new service connection, the Company shall collect an off-site facilities fee derived from the following table:

OFF-SITE FACILITIES FEE TABLE			
		Total Fee	
Meter Size	**Size Factor**	**Residential**	**All Other Classes**
5/8" x 3/4 "	1	$2,500	$2,500
3/4"	1.5	$2,500	$3,750
1"	2.5	$6,250	$6,250
1-1/2 "	5	$12,500	$12,500
2"	8	$20,000	$20,000
3"	16	$40,000	$40,000
4"	25	$62,500	$62,500
6" or larger	50	$125,000	$125,000

IV. Terms and Conditions

(A) Assessment of One Time Off-Site Facilities Fee: The off-site facilities fee may be assessed only once per parcel, service connection, or lot within a subdivision (similar to meter and service line installation charge). These charges are not applicable to additional service connections that are established as back-up connections, under the condition that these service connections are not to be used at the same time

(B) Use of Off-Site Facilities Fee: Off-site facilities 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 facilities fees shall not be used to cover repairs, maintenance, or operational costs. The Company shall record amounts collected under tariff as Contributions in Aid of Construction ("CIAC"); however, such amounts shall not be deducted from rate base until such amounts have been expended for utility plant.

(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 facilities 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 facilities 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 facilities 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 facilities fees under this Tariff, Applicant shall pay the remaining amount of off-site facilities 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 facilities 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 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 facilities 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 facilities schedule for the subdivision and/or development.

(G) Off-Site Facilities Fees Non-refundable: The amounts collected by the Company as off-site facilities fees pursuant to the off-site facilities fee tariff shall be non-refundable contributions in aid of construction.

(H) Use of Off-Site Facilities Fees Received: All funds collected by the Company as off-site facilities 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 Facilities Fee in Addition to On-site Facilities: The off-site facilities 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 this tariff, or if the off-site facilities fee tariff 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 not covered by this tariff, such additional facilities shall be constructed under a separate Main Extension Agreement as a non-refundable contribution and shall be in addition to the off-site facilities fee.

(L) Status Reporting Requirements to the Commission: The Company shall submit a calendar year off-site facilities fee status report each January 31st to Docket Control for the prior twelve (12) month period, beginning January 31, 2017, until the off-site facilities fee tariff is no longer in effect. This status report shall contain a list of all customers that have paid the off-site facilities fee, 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: Arizona Water Company
Pinal Valley (Casa Grande, Coolidge & Stanfield) DECISION NO. _____
DOCKET NO. W-01445A-15-0277 EFFECTIVE DATE: _____

OFF-SITE FACILITIES FEE

I. Purpose and Applicability

The purpose of the off-site facilities fees payable to Arizona Water Company ("the Company") pursuant to this tariff is to equitably apportion the costs of constructing additional off-site facilities necessary to provide water production, treatment, delivery, recharge, recovery, 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.

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"CAP Water" means water from the Central Arizona Project provided directly or indirectly to the Company.

"Company" means Arizona Water Company.

"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 water treatment facilities, including treatment of CAP Water and other available water supplies, recharge and recovery facilities, storage tanks and related appurtenances and equipment necessary for proper operation of such water treatment facilities, including engineering and design costs. Offsite facilities may also include booster pumps, wells for recovery of stored CAP water or other groundwater supplies, pressure tanks, transmission mains and related

appurtenances and equipment necessary for proper operation of such facilities if these facilities are not for the exclusive use of the applicant and will benefit the entire water system.

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For each new service connection, the Company shall collect an off-site facilities fee derived from the following table:

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1"	2.5	$8,750	$8,750
1-1/2 "	5	$17,500	$17,500
2"	8	$28,000	$28,000
3"	16	$56,000	$56,000
4"	25	$87,500	$87,500
6" or larger	50	$175,000	$175,000

IV. Terms and Conditions

(A) Assessment of One Time Off-Site Facilities Fee: The off-site facilities fee may be assessed only once per parcel, service connection, or lot within a subdivision (similar to meter and service line installation charge). These charges are not applicable to additional service connections that are established as back-up connections, under the condition that these service connections are not to be used at the same time.

(B) Use of Off-Site Facilities Fee: Off-site facilities 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 facilities fees shall not be used to cover repairs, maintenance, or operational costs. The Company shall record amounts collected under tariff as Contributions in Aid of Construction ("CIAC"); however, such amounts shall not be deducted from rate base until such amounts have been expended for utility plant.

(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 facilities 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 facilities fee charges hereunder shall be due and payable at the time the meter and service line installation fee is due and payable.

(G) 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 facilities 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 facilities fees under this Tariff, Applicant shall pay the remaining amount of off-site facilities 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 facilities fees under this Tariff, Applicant shall be refunded the difference upon acceptance of the off-site facilities by the Company.

(H) Failure to Pay Charges; Delinquent Payments: The Company will not be obligated to make an advance commitment to provide or 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.

(I) 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 facilities 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 facilities schedule for the subdivision and/or development.

(G) Off-Site Facilities Fees Non-refundable: The amounts collected by the Company as off-site facilities fees shall be non-refundable contributions in aid of construction.

(H) Use of Off-Site Facilities Fees Received: All funds collected by the Company as off-site facilities 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 Facilities Fee in Addition to On-site Facilities: The off-site facilities 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 facilities fees, or if the off-site facilities 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 not covered by this tariff, such additional facilities shall be constructed under a separate Main Extension Agreement as a non-refundable contribution and shall be in addition to the off-site facilities fee.

(L) Status Reporting Requirements to the Commission: The Company shall submit a calendar year off-site facilities fee status report each January 31st to Docket Control for the prior twelve (12) month period, beginning January 31, 2017, until the facilities fee tariff is no longer in effect. This status report shall contain a list of all customers that have paid the off-site facilities fee, 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.