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BEFORE THE ARIZONA CORPORATION COMMISSION

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AZ CORP COMMISSION
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COMMISSIONERS
DOUG LITTLE, Chairman
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IN THE MATTER OF THE APPLICATION OF LIBERTY UTILITIES (BELLA VISTA WATER) CORP., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE FAIR VALUE OF ITS UTILITY PLANTS AND PROPERTY AND FOR INCREASES IN ITS WATER RATES AND CHARGES FOR UTILITY SERVICE BASED THEREON.	Docket No. W-02465A-15-0367
IN THE MATTER OF THE APPLICATION OF LIBERTY UTILITIES (BELLA VISTA WATER) CORP., AN ARIZONA CORPORATION, FOR AUTHORITY TO ISSUE EVIDENCE OF INDEBTEDNESS IN AN AMOUNT NOT TO EXCEED $4,700,000.	Docket No. W-02465A-15-0370
IN THE MATTER OF THE APPLICATION OF LIBERTY UTILITIES (RIO RICO WATER & SEWER) CORP., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE FAIR VALUE OF ITS UTILITY PLANTS AND PROPERTY AND FOR INCREASES IN ITS WATER AND WASTEWATER RATES AND CHARGES FOR UTILITY SERVICE BASED THEREON.	Docket No. WS-02676A-15-0368
IN THE MATTER OF THE APPLICATION OF LIBERTY UTILITIES (RIO RICO WATER & SEWER) CORP., AN ARIZONA CORPORATION, FOR AUTHORITY TO ISSUE EVIDENCE OF INDEBTEDNESS IN AN AMOUNT NOT TO EXCEED $8,900,000.	Docket No. WS-02676A-15-0371

Arizona Corporation Commission
DOCKETED

MAY 23 2016

DOCKETED BY

NOTICE OF FILING

The Residential Utility Consumer Office ("RUCO") hereby provides notice of filing the Direct Testimony of Robert Mease, John Cassidy, and the redacted testimony of Timothy Coley, in the above referenced matter.

RESPECTFULLY SUBMITTED this 23rd day of May, 2016.

Daniel W. Pozefsky
Chief Counsel

AN ORIGINAL AND THIRTEEN COPIES
of the foregoing filed this 23rd day
of May, 2016 with:

Docket Control
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LIBERTY UTILITIES

(BELLA VISTA WATER & RIO RICO WATER & WASTEWATER)

DOCKET NOS. W-02465A-15-0367 et al.

REDACTED DIRECT TESTIMONY

OF

TIMOTHY COLEY

ON BEHALF OF THE

RESIDENTIAL UTILITY CONSUMER OFFICE

MAY 23, 2016

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EXECUTIVE SUMMARY
LIBERTY UTILITIES BELLA VISTA WATER AND RIO RICO WATER & SEWER
DOCKET NO. W-02465A-15-0367 ET AL.

Liberty Utilities Bella Vista Water, Rio Rico Water, Rio Rico Sewer are all Arizona public service corporations. Bella Vista Water utility is engaged in providing water utility service in portions of Cochise County, Arizona. Whereas, Rio Rico Water and Rio Rico Sewer utilities are engaged in providing water and wastewater utility services in portions of Santa Cruz County, Arizona. Bella Vista Water served approximately 8,133 residential customers, 1,035 commercial customers, and 189 fire protection customers during the test year ended December 31, 2014. Bella Vista Water's current rates were approved in Decision No. 72251 (April 7, 2011) using a test year ending March 31, 2009. The Company does not provide wastewater utility service for the Bella Vista service area.

Rio Rico Water and Rio Rico Sewer served approximately 6,404 water and 2,046 wastewater service connections, respectively, during the test year ended December 31, 2014. Both Rio Rico Water and Rio Rico Sewer's current rates were approved in Decision No. 73996 (July 30, 2013) using a test year ending February 29, 2012.

Rate Application:

For Bella Vista Water, the Company-proposed rates, as filed, produce total gross revenues of $6,179,027, an increase of $1,554,297 or 33.61 percent, over adjusted test year gross revenues of $4,624,730. The Company-proposed gross revenue will provide operating income of $1,209,727 and a 9.16 percent rate of return on its proposed $13,205,189 fair value rate base ("FVRB"), which is also its original cost rate base ("OCRB").

For Bella Vista Water, the Residential Utility Consumer Office ("RUCO") recommends rates that produce total gross revenues of $5,219,033, an increase of $501,806 or 10.64 percent, over RUCO's adjusted test year gross revenues of $4,717,227. RUCO's recommended revenue will provide operating income of $827,301 and a 7.31 percent return on the $11,320,677 RUCO-adjusted FVRB / OCRB rate base.

For Rio Rico Water, the Company-proposed rates, as filed, produce total gross revenues of $3,716,628, an increase of $683,836 or 22.55 percent, over adjusted test year gross revenues of $3,032,792. The Company-proposed gross revenue will provide operating income of $762,189 and an 8.60 percent rate of return on its proposed $8,861,632 fair value rate base ("FVRB"), which is its original cost rate base ("OCRB").

For Rio Rico Water, the Residential Utility Consumer Office ("RUCO") recommends rates that produce total gross revenues of $3,381,836, an increase of $252,282 or 8.06 percent, over RUCO's adjusted test year gross revenues of $3,129,553. RUCO's recommended revenue will provide operating income of $649,832 and a 7.31 percent return on the $8,892,216 RUCO-adjusted FVRB / OCRB rate base.

For Rio Rico Sewer, the Company-proposed rates, as filed, produce total gross revenues of $1,704,674, an increase of $226,351 or 15.31 percent, over adjusted test year gross revenues of $1,478,323. The Company-proposed gross revenue will provide operating income of $460,616 and an 8.60 percent rate of return on its proposed $5,355,381 fair value rate base ("FVRB"), which is its original cost rate base ("OCRB").

For Rio Rico Sewer, the Residential Utility Consumer Office ("RUCO") recommends rates that produce total gross revenues of $1,447,005, a decrease of ($31,318) or (2.12) percent, over RUCO's adjusted test year gross revenues of $1,478,323. RUCO's recommended revenue will provide operating income of $344,416 and a 7.31 percent return on the $4,712,945 RUCO-adjusted FVRB / OCRB rate base.

Other Issues:

I will address RUCO's positions concerning the two-adjuster mechanisms that the Company requests Commission approval in this case. The two adjuster mechanisms are Purchased Power Adjuster Mechanism ("PPAM") and Property Tax Adjuster Mechanism ("PTAM").

Cost of Capital:

RUCO's analyst, Mr. John Cassidy, will provide testimony and recommendations filed under separate cover that supports RUCO's recommended cost of capital for this case.

Rate Design:

The Company proposed no changes to its current rate design approved in Decision Nos. 72251 and 73996 with the exception of no low-income or discounted programs other than for the schools located in the Rio Rico Water & Sewer certificated areas. The rate design testimony for this proceeding is not due until May 31, 2016. RUCO will address the Company's rate design more thoroughly at that time.

FARE Model

RUCO's Chief of Accounting and Rates, Mr. Robert B. Mease, will address the Company's request for approval of the Fair Value Arizona Rate Evaluation Model ("FARE"). The FARE program has been introduced as a replacement for the System Improvement Benefit ("SIB") mechanism, recently determined unconstitutional by the Arizona Court of Appeals.

I. INTRODUCTION

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

A. My name is Timothy J. Coley. I am a Public Utilities Analyst V employed by the Residential Utility Consumer Office ("RUCO"). My business address is 1110 West Washington Street, Suite 220, Phoenix, Arizona 85007.

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

A. In my capacity as a Public Utilities Analyst V, I am responsible for analyzing and examining accounting, financial, statistical and other information to prepare reports based on my analyses that present RUCO's recommendations to the Arizona Corporation Commission ("Commission" or "ACC") on utility revenue requirements, rate design, and other matters in the interests for fair and reasonable rates for residential utility ratepayers. I also provide expert testimony on these same matters.

Q. Please state your educational background and qualifications in the utility regulatory field.

A. Appendix 1, which is attached to this testimony, describes my educational background and includes a list of the rate cases and regulatory matters in which I have participated.

Q. Please state the purpose of your testimony.

A. The purpose of my testimony is to present RUCO's recommendations regarding Liberty Utilities' Bella Vista Water ("Bella Vista Water" or "Company"), Rio Rico Water ("Rio Rico Water" or "Company"), and Rio Rico Sewer's ("Rio Rico Sewer" or "Company") rate Applications for a determination of the current fair value of its utility plant and property for a determination of a permanent increase or decrease in its rates and charges based thereon for utility service. The test year utilized by the Company in connection with the preparation of these three Applications is the 12-month period that ended December 31, 2014 ("Test Year" or "TY"). For purposes of the current rate proceeding, the three separate rate Applications have been consolidated by the Commission under Docket No. W-02465A-15-0367 et al.

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

A. I performed a regulatory audit of the Company's application utilizing current and past records. The regulatory audit consisted of examining and testing financial information, accounting records, other supporting documentation, and verifying that the accounting principles applied were in accordance with the Commission-adopted NARUC Uniform System of Accounts ("USOA").

Q. How is your testimony organized?

A. My testimony is presented in eight sections. Section I is this introduction. Section II provides a background of the Company's requested revenue requirements. Section III is a summary of the Company's filing and RUCO's over-all

recommendations. Section IV presents the summary of RUCO's recommended rate base and operating income adjustments. Section V presents RUCO's summary on other issues. Section VI presents RUCO's recommended rate base adjustments 1-10. Section VII presents RUCO's recommended operating income adjustments 1–17. Section VIII presents RUCO's recommended positions on other issues requested by the Company in this proceeding.

II. BACKGROUND

Q. Please provide an overall background as it relates to this Application.

A. All three systems (Bella Vista Water, Rio Rico Water, and Rio Rico Sewer) are Arizona public service corporations regulated by the Commission. All three systems are engaged in providing water and/or wastewater utility service in either portions of Cochise and Santa Cruz Counties. Bella Vista Water is comprised of three different but consolidated systems. The three consolidated systems are the original Bella Vista system and Northern and Southern Sunrise systems, which were all granted consolidation into one system in the last rate case for Bella Vista in Commission Decision No. 72251 dated April 7, 2011. The consolidated Bella Vista Water system in the instant case served approximately 8,133 residential customers, 1,035 commercial customers, and 189 fire protection customers in portions of Cochise County during the test year ended December 31, 2014. The present rates were approved in Decision No. 72251 and went into effect on April 7, 2011, which used a TY ending March 31, 2009. Bella Vista Water does <u>not</u> provide wastewater utility service for the Bella Vista service area.

Rio Rico Water served approximately 6,155 residential customers, 192 commercial customers, 18 schools, 13 industrial customers, 8 multi-family/tenant units, and 19 fire protection customers in Santa Cruz County during the test year ended December 31, 2014. The present rates were approved in Decision No. 73996 and went into effect on July 30, 2013, which used a TY ending February 29, 2012.

Rio Rico Sewer served approximately 1,908 residential customers, 130 commercial customers, 14 schools, and 7 multi-family/tenant units in Santa Cruz County during the TY ended December 31, 2014. The present rates were also approved in Decision No. 73996 and went into effect on July 30, 2013, which used a TY ending February 29, 2012.

As in all past and recent Liberty Utility cases, the primary issue of contention in the Liberty Utilities' rate proceedings have been and continue to be the corporate allocations as each prior Commission Decision has appropriately addressed. The corporate allocations once again appear to be the most contentious for this proceeding.

Q. Please provide a brief overview of the corporate allocations in this case.

A. The Company seems to have added additional layers of corporate overheads (i.e. Liberty Utility Canada ("LUC") and Liberty Algonquin Business Services ("LABS") since I last performed a full analysis of the costs in Docket No. WS-02676A-09-0257. Commission Staff requested and RUCO issued a number of data requests

("DR") regarding the corporate allocations in this current case. It became apparent that there are additional labor costs above and beyond what was being allocated down from Algonquin Power & Utilities Corp ("APUC") when compared to Docket No. WS-02676A-09-0257. APUC is the Canadian parent of Liberty Utilities and the three systems filed in this case. Not only are APUC's labor costs being allocated down to the ratepayers of Bella Vista Water and Rio Rico Water & Sewer but also the additional corporate layers of LUC and LABS' labor costs are also being allocated to the three systems in this case.

RUCO will briefly highlight a few other aspects regarding the corporate allocations that I found unique in this current case that was not so apparent in previous Liberty cases. The allocation factors are not consistent. For example, a document, which is included as Attachment 1, showing allocable costs from Liberty Utilities South or LU 8020 reflected a Bella Vista allocation factor of approximately [BEGIN CONFIDENTIAL] [END CONFIDENTIAL]. These three systems are relatively small systems and a $100,000 difference is a significant adjustment. This difference in the allocation factor can cause gross discrepencies in utility rates to the detriment of Bella Vista Water customers.

This example alone shows the volatility with which the corporate allocation factor alone can dramatically cause wide swings in costs. It can simply be which entities are included or excluded in APUC or Liberty South's organization structure on any given day, week, month, or year that determines the ultimate cost allocations not to

mention foreign exchange rates. Several of these points will be discussed throughout specific adjustments that RUCO recommends in its testimony.

III. SUMMARY OF COMPANY FILING AND RUCO OVER-ALL RECOMMENDATIONS:

Q. Please summarize the Company's proposals in its filing.

A. For Bella Vista Water, the Company-proposed rates, as filed, will produce total gross revenues of $6,179,027, an increase of $1,554,297 in base rates, or 33.61 percent, over adjusted test year revenues of $4,624,730. The Company-proposed revenue will provide operating income of $1,209,727 and a 9.16 percent rate of return on its proposed $13,205,189 fair value rate base ("FVRB"), which it also requested to be its original cost rate base ("OCRB") in this proceeding.

For Rio Rico Water, the Company-proposed rates, as filed, will produce total gross revenues of $3,716,628, an increase of $683,836 in base rates, or 22.55 percent, over adjusted test year revenues of $3,032,792. The Company-proposed revenue will provide operating income of $762,189 and an 8.60 percent rate of return on its proposed $8,861,632 fair value rate base ("FVRB"), which it requested to be its original cost rate base ("OCRB") in this proceeding.

For Rio Rico Sewer, the Company-proposed rates, as filed, will produce total gross revenues of $1,704,674, an increase of $226,351 in base rates, or 15.31 percent, over adjusted test year revenues of $1,478,323. The Company-proposed revenue

will provide operating income of $460,616 and an 8.60 percent rate of return on its proposed $5,355,381 fair value rate base ("FVRB"), which it requested to be its original cost rate base ("OCRB") in this proceeding.

The Company has also proposed a Purchase Power Adjuster Mechanism ("PPAM") and a Property Tax Adjustor Mechanism ("PTAM") in each of the three systems included in this filing. Finally, the Company has proposed a Fair Value Arizona Rate Evaluation Model ("FARE") that is being submitted as a replacement for the System Improvement Benefit ("SIB") that was recently determined by the Arizona Court of Appeals as unconstitutional.

Q. Please summarize RUCO's recommendations for Bella Vista Water, Rio Rico Water, and Rio Rico Sewer in this filing.

A. For Bella Vista Water, RUCO recommends rates that produce total gross revenues of $5,219,033, an increase of $501,806 or 10.64 percent, from the RUCO-adjusted test year revenue of $4,717,227. RUCO's recommended revenue will provide operating income of $827,301 and a 7.31 percent return on the $11,320,677 RUCO-adjusted FVRB and OCRB.

For Rio Rico Water, RUCO recommends rates that produce total gross revenues of $3,381,836, an increase of $252,282 or 8.06 percent, from the RUCO-adjusted test year revenue of $3,129,553. RUCO's recommended revenue will provide

operating income of $649,832 and a 7.31 percent return on the $8,892,216 RUCO-adjusted FVRB and OCRB.

For Rio Rico Sewer, RUCO recommends rates that produce total gross revenues of $1,447,005, a decrease of ($31,318) or (2.12) percent, from the RUCO-adjusted test year revenue of $1,478,323. RUCO's recommended revenue will provide operating income of $344,416 and a 7.31 percent return on the $4,712,945 RUCO-adjusted FVRB and OCRB.

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

A. The Company's rate filing is based on the twelve months TY ended December 31, 2014.

IV. SUMMARY OF RUCO RECOMMENDED RATE BASE AND OPERATING INCOME ADJUSTMENTS:

Q. How many rate base adjustments is RUCO recommending for Bella Vista Water, Rio Rico Water, and Rio Rico Sewer systems?

A. RUCO is recommending three rate base adjustments that applies to all three systems filed in this case.

Q. Please summarize the overall impact to rate base of the three common rate base adjustments that RUCO recommends to each of the three systems in this case.

A. The combined overall impact of RUCO's three recommended common rate base adjustments are presented by each system in the table below:

Combined Impact of RUCO's Three Recommended Rate Base Adjustments

System	Increase / (Decrease) Rate Base
Bella Vista Water	($1,884,512)
Rio Rico Water	$ 30,585
Rio Rico Sewer	($642,436)

Q. Please identify each of the three common rate base adjustments by 1) system, 2) component of rate base to which each adjustment applies, and 3) the amount of each adjustment.

A. The section below identifies each of RUCO's recommended rate base adjustments by system, component of rate base, and the amount of each adjustment in the descriptions and tables below:

RUCO Rate Base Adjustments:

Rate Base Adjustment No. 1 - Utility Plant in Service ("UPIS") and Accumulated Depreciation ("A/D") - This adjustment is comprised of four separate UPIS and A/D adjustments, numbered (a) – (d) and shown on the respective Schedules TJC-4, pages 1 and 2, and are identified by system, component of rate base, and the amount of each adjustment in the tables below:

[BEGIN CONFIDENTIAL]

Utility Plant in Service – Schedule TJC-4, Page 1 of 2

System	Adjustment (a)	Adjustment (b)	Adjustment (c)	Adjustment (d)	Totals
Bella Vista W	-			($239,792)	($868,497)
Rio Rico W	($2)			($161,372)	$109,595
Rio Rico S	($600)			($67,986)	($616,175)

Accumulated Depreciation – Schedule TJC-4, Page 2 of 2

System	Adjustment (a)	Adjustment (b)	Adjustment (c)	Adjustment (d)	Totals
Bella Vista W	33,176			($8,033)	($2,308)
Rio Rico W	$27,842			($5,406)	$41,899
Rio Rico S	$23,077			($2,277)	($2,184)

[END CONFIDENTIAL]

References to Adjustments (a) through (d):
Adjustment (a): Reconstruction of UPIS & A/D on Schedules TJC-4(a) pages 1-2;
Adjustment (b): True-up PTY Plant & A/D per response to RUCO DR 2.10 on TJC-4(b) pages 1-2;
Adjustment (c): PTY UPIS & A/D Disallow exceeding 6-Months TY End on TJC-4(c) pages 1-2; and
Adjustment (d): Corporate Plant & A/D Disallowance on TJC-4(d) pages 1-2.

Rate Base Adjustment No. 2 through 8 – Intentionally Left Blank

Rate Base Adjustment No. 9 – Accumulated Deferred Income Taxes ("ADIT") - This adjustment is based on RUCO's recommended levels of UPIS, A/D, Advances in Aid of Construction ("AIAC"), Contributions in Aid of Construction ("CIAC"), and effective federal and state income tax rates. Each of the ADIT adjustments reflected in the table below are shown on the respective Schedules TJC-3 and are identified by system, component of rate base, and the amount of each adjustment in the tables below:

Accumulated Deferred Income Taxes ("ADIT")

System	Increase / (Decrease) ADIT & Rate Base
Bella Vista Water	($958,822)
Rio Rico Water	$20,972
Rio Rico Sewer	$99,899

Rate Base Adjustment No. 10 – Allowance for Working Capital – This is a cash working capital adjustment and is based on RUCO's recommended levels of operating expenses, type of expenses included, and an adjustment to the revenue lag days. Each of the cash working capital adjustments reflected in the table below are shown on the respective Schedules TJC-3 and are identified by system, component of rate base, and the amount of each adjustment in the tables below:

Cash Working Capital

System	Increase / (Decrease) Cash Working Capital & Rate Base
Bella Vista Water	($54,886)
Rio Rico Water	($58,084)
Rio Rico Sewer	($123,976)

This concludes RUCO's summary of recommended rate base adjustments.

RUCO Operating Income Adjustments:

Q. How many operating income adjustments is RUCO recommending for Bella Vista Water, Rio Rico Water, and Rio Rico Sewer systems?

A. RUCO is recommending nine common operating income adjustments, with a tenth declining usage adjustment for both the Bella Vista and Rio Rico Water systems, which applies to all three systems filed in this case.

Q. Please summarize the overall impact to operating income of the nine common operating income adjustments and a tenth adjustment for Bella Vista and Rio Rico Water systems that RUCO recommends to each of the three systems in this case.

A. The combined overall impact of RUCO's nine recommended common operating income adjustments and a tenth for Bella Vista and Rio Rico Water systems are presented by each system in the table below:

Combined Impact of RUCO's Recommended Operating Income Adjustments

System	Increase / (Decrease) Operating Income
Bella Vista Water	$262,254
Rio Rico Water	$153,895
Rio Rico Sewer	$42,761

Q. Please identify each of the nine common rate base adjustments and the tenth adjustment for the Bella Vista and Rio Rico Water systems. Please identify the adjustments by 1) system, 2) operating income account to which each adjustment applies, and 3) the amount of each adjustment.

A. The section below identifies each of RUCO's recommended operating income adjustments by system, operating income account, and the amount of each adjustment in the descriptions and tables below:

RUCO Operating Income Adjustments:

1. Depreciation Expense – These adjustments are primarily due to RUCO's PTY plant true-ups per Company's response to RUCO DR 2.10, disallowances of PTY plant exceeding 6-months TY end, and the level of depreciable plant going forward. For each of the three systems, see the adjustments in the table below:

Depreciation Expense

System	Increase / (Decrease) Depreciation Expense
Bella Vista Water	($69,393)
Rio Rico Water	$9,730
Rio Rico Sewer	($40,924)

2. Property Tax Expense – These adjustments are primarily due to RUCO's adjusted and recommended revenue. For each of the three systems, see the adjustments in the table below:

Property Tax Expense

System	Increase / (Decrease) Property Tax Expense
Bella Vista Water	($53,777)
Rio Rico Water	$4,949
Rio Rico Sewer	$149

3. Incentive Pay – These adjustments decrease Contractual Services – Professional Expense for a 50% sharing between shareholders and ratepayers for this non-contractual incentive payroll perk. For each of the three systems, see the adjustments in the table below:

Incentive Pay Expense

System	Increase / (Decrease) Incentive Pay Expense
Bella Vista Water	($34,853)
Rio Rico Water	($20,320)
Rio Rico Sewer	($8,554)

4. Pay Increase – These adjustments remove the second-pay raise and decreases Contractual Services – Professional and Contractual Services - Other Expense at RUCO's recommended level of labor expense accordingly. For each of the three systems, see the total adjustments in the table below:

Total Pay Increase Expense

System	Increase / (Decrease) Remove 2nd Payroll Increase
Bella Vista Water	($45,000)
Rio Rico Water	($28,947)
Rio Rico Sewer	($2,954)

5. Revenue – Declining Usage – These adjustments reverse the Company's declining revenue adjustments for Bella Vista and Rio Rico Water. Rio Rico Sewer does not have a declining usage adjustment. For each of the three systems, see the total adjustments in the table below:

Reverse Declining Usage Revenue and Expenses

System	Increase / (Decrease) Reverse Company Declining Usage
Bella Vista Water	$67,248
Rio Rico Water	$75,187
Rio Rico Sewer	$0

6. Intentionally Left Blank

7. Miscellaneous Expense – Postage Decrease – These adjustments decreases the postage expense the Company incurs to mail out customers' bills. The postage decrease became effective April 7, 2016 and is a known and measurable $0.02 decrease. For each of the three systems, see the total adjustments in the table below:

Miscellaneous Expense – Postage Decrease

System	Increase / (Decrease) Postage Decrease
Bella Vista Water	($2,341)
Rio Rico Water	($1,164)
Rio Rico Sewer	($374)

8. Intentionally Left Blank

9. Contractual Services – Professional - Algonquin Power & Utilities Corp ("APUC") Non-Labor Expense – These adjustments decreases Contractual Services – Professional Expense by approximately 45 percent for non-labor related charges. For each of the three systems, see the total adjustments in the table below:

[BEGIN CONFIDENTIAL]

Contractual Services - Professional Expense – APUC Non-Labor Charges

System	Increase / (Decrease) APUC Non-Labor Charges
Bella Vista Water	
Rio Rico Water	
Rio Rico Sewer	

[END CONFIDENTIAL]

10. Contractual Services – Professional – APUC, Liberty Utilities Canada ("LUC"), and Liberty Algonquin Business Services ("LABS") – These adjustments decreases Contractual Services – Professional Expense by approximately 45 percent for labor allocations from APUC, LUC, and LABS accordingly. For each of the three systems, see the total adjustments in the table below:

[BEGIN CONFIDENTIAL]

Contractual Services - Professional Expense – APUC, LUC, & LABC Labor Allocations

System	Increase / (Decrease) APUC, LUC, & LABC Labor Allocations
Bella Vista Water	
Rio Rico Water	
Rio Rico Sewer	

[END CONFIDENTIAL]

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13. Liberty Utilities ("LU") 8020 Allocations – These adjustments decrease Contractual Services – Professional Expense by an inconsistent allocation factor used in the Company's Application. For example, Bella Vista allocation factor in the majority of all the allocations utilized 10.96 percent whereas in this particular instance the Company used an allocation factor of approximately 13.34 percent, which alone represents a $95,861 downward adjustment for Bella Vista Water as seen in the table below. For each of the three systems, see the adjustments in the table below:

[BEGIN CONFIDENTIAL]

Contractual Services - Professional Expense – LU 8020 Labor Allocations

System	Increase / (Decrease) LU 8020 Labor Allocations
Bella Vista Water	
Rio Rico Water	
Rio Rico Sewer	

[END CONFIDENTIAL]

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17. Income Tax Expense – These adjustments increase income tax expense by RUCO's recommended level of taxable operating income. For each of the three systems, see the total adjustments in the table below:

Income Tax Expense

System	Increase / (Decrease) Income Tax Expense
Bella Vista Water	$191,092
Rio Rico Water	$99,092
Rio Rico Sewer	$33,568

This concludes RUCO's summary of recommended operating income adjustments.

V. SUMMARY OF OTHER ISSUES:

Q. Please summarize RUCO's positions on the other issues as requested in the Company's filing that you will be addressing in your testimony.

A. RUCO summarized its positions earlier in Summary Section III of this testimony regarding the Company's other issues as requested in its filing. The remaining issues that I will be addressing in my testimony include the Purchase Power

Adjustor Mechanism and the Property Tax Adjustor Mecnahism. RUCO recommends the Commission deny the Company's two surcharge mechanisms.

Q. Does that complete RUCO's summary of the overall revenue requirements, rate base and operating income adjustments, and positions on the other issues as requested by the Company in this proceeding?

A. Yes.

Q. Please continue to RUCO's rate base adjustment recommendations.

A. The next section of RUCO's testimony will address each rate base adjustment that RUCO recommends in this proceeding below.

VI. RUCO RECOMMENDED RATE BASE ADJUSTMENTS 1 - 10:

Rate Base Adjustment #1 – Utility Plant in Service ("UPIS") and Accumulated Depreciation ("A/D") Adjustments:

Q. Please explain RUCO rate base adjustment #1.

A. Rate base adjustment #1 is comprised of four separate and unique adjustments. All four of the adjustments for plant are shown in RUCO Schedule TJC-4 on page 1 of 2. Schedule TJC-4 reflects adjustments (a) through (d). Adjustment (a) is the reconstruction of plant values since the systems last approved plant values/balances. RUCO's reconstruction schedules are on the respective Schedules TJC-4(a) for the three different systems filed by the Company in the

current rate proceeding. Schedules TJC-4(a) starts with the last approved plant balances and adjusts year by year through TY end adding all the plant additions plus the positive plant adjustments. The retirements plus the negative plant adjustments are subtracted from the plant balances. The process continues through TY end to compare the reconstructed balances with the amount reflected in the fixed asset or general leger system. Adjustments are then made to the fixed asset or general ledger to reconcile to the reconstruction schedules.

Q. Did RUCO's reconstruction Schedules TJC-4(a) of the plant balances result in any adjustments?

A. For Bella Vista Water, RUCO and the Company are in agreement on the plant balances in that system. For Rio Rico Water and Sewer, there was a small difference between the Company and RUCO but insignificant in amount.

Q. What were the reasons of the insignificant differences?

A. The Company's reconstruction schedules formulae failed to sum the two amounts that were there in the Company's schedules, which is the difference between the Company and RUCO. I have included the two amounts in my schedules as adjustments for the two Rio Rico systems, which was ($2) for Rio Rico Water and ($600) for Rio Rico Sewer. The two adjustments are shown in the table below. However, there is also the companion component of plant, which is accumulated depreciation that is also calculated in the reconstruction schedules.

Reconstruction of Utility Plant in Service Adjustments

System	Increase / (Decrease) Utility Plant in Service
Bella Vista Water	$0
Rio Rico Water	($2)
Rio Rico Sewer	($600)

Q. Did RUCO have any differences in the accumulated depreciation balances than the Company?

A. Yes.

Q. What were the reasons for the accumulated depreciation differences calculated by RUCO and the Company?

A. There were three primary reasons that gave raise to the accumulated depreciation balance differences between RUCO and the Company. First, RUCO's adjustments and disallowances to post test year plant created one of the differences between RUCO and the Company. The Company did not calculate depreciation on the PTY plant. Whenever post test year plant is added to rate base the depreciation convention used by the Company, which is half-year convention, should be added to the accumulated depreciation balance just as any other plant additions are assumed to have went into service at the midpoint of the year. Thus, a half-year of depreciation should be added to the accumulated depreciation balance. The Company added no depreciation for the PTY plant additions. It is normal accounting practice to calculate the depreciation convention used by a Company for the amount of depreciation to add to the accumulated depreciation balance.

RUCO's accumulated depreciation adjustment for PTY plant is shown on Schedule TJC-4(a) on page 2.

The second primary reason for the accumulated depreciation balance differences between RUCO and the Company is RUCO's disallowance of allocated corporate plant that appears to be in Canadian dollars rather than US dollars. This doesn't take into account leasehold improvements for a bank and an accounting firm that lease space from APUC in its new Oakville, Ontario building, The leasehold improvements paid for by APUC for the two leasing tenants are also being allocated down from Canada to Bella Vista and Rio Rico utilities.

The third and final reason for Bella Vista Water's accumulated depreciation balance differences between RUCO and the Company is the $125,026 unaccounted for accumulated depreciation balance found on the Company's Schedule B-2 at page 4 and its Schedule B-1. RUCO's Schedule TJC-4 at page 2 reflects the Company's unaccounted for accumulated depreciation balance of $125,026 as "Not Accounted For."

Q. What are RUCO's adjustments to accumulated depreciation for the PTY plant in the three systems filed in this case?

A. The adjustments are shown for each of the three systems in the table below:

Reconstruction of Accumulated Depreciation Adjustments

System	Increase / (Decrease) Utility Plant in Service
Bella Vista Water	$33,176
Rio Rico Water	$27,842
Rio Rico Sewer	$23,077

Q. Did the Company once again utilize the new vintage group depreciation methodology for plant in this case that it introduced in the recent Liberty Black Mountain case in Docket No. SW-02361A-15-0206 et al.?

A. Yes. The Company has again proposed the vintage group depreciation methodology in this rate proceeding.

Q. Please explain the difference between group and vintage group depreciation for plant.

A. Group depreciation simply depreciates the plant by groups or by NARUC plant accounts with no recognition of any specific vintage year in which it was first placed into service. The vintage group depreciation methodology also groups assets per NARUC plant accounts but by the vintage year that the asset was placed into service. Once a specific vintage year of plant is fully depreciated, the depreciation process ceases. In addition, the fully depreciated group of assets in a particular vintage year is no longer used in calculating depreciation expense on a going-forward basis either. Essentially, the group of fully depreciated plant has zero rate base impact because it is offset by the accumulated depreciation of equal value. Plant carries a normal debit balance while the contra-account, accumulated

depreciation, carries a normal credit balance. When both the plant and contra-account, accumulated depreciation, have equal debit and credit balances, that group or vintage year group of assets has a zero net book value and thus is fully depreciated. The debit plant balance is offset by the same credit balance, which equals a net book value of zero. Once any of the vintage asset groups are fully depreciated, the depreciation process ceases for that vintage year group because depreciation is the process of allocating the cost of an asset to depreciation expense "over its useful life in a rational and systematic process."[1]

When the original cost of assets equals the accumulated depreciation balance for the same vintage year group of assets, that group of assets are fully depreciated with a net book value of zero (i.e., Cost of Asset $100 – Accumulated Depreciation Balance $100 = Net Book Value $0.00). Thus, in that example, the Company has recovered its cost of the asset. The depreciation process ceases as defined by the earlier referenced textbook definition of depreciation. The depreciation process is further exemplified in the Arizona Administrative Code ("AAC") in Section R14-2-102 that states, "Depreciation means an accounting process which will permit the recovery of the original cost of an asset less its net salvage over the service life." The depreciation process allows for recovery of the original cost but not more or less as RUCO has demonstrated in numerous recent cases where some companies were over-recovering on its cost several times over the original cost.

[1] Intermediate Accounting, Tenth Edition, D Kieso, J Weygandt, T Warfield; page 81.

Q. Did RUCO utilize the same vintage group depreciation methodology, as proposed by the Company, when reconstructing its UPIS and accumulated depreciation ("A/D") balances since the last approved balances?

A. Yes.

Q. What is RUCO's second component of four UPIS and A/D adjustments on Schedule TJC-4 that is a part of RUCO rate base adjustment 1?

A. The second component of four UPIS and A/D depreciation adjustments that is part of RUCO rate base adjustment #1 is the true-up of the Company's estimates and accruals as filed in the Application to actual amounts of the Company's PTY plant. In the Company's response to RUCO DR 2.7, the Company provided the actual trued-up amounts of PTY plant costs. RUCO's adjustment represents the difference between the accrued amounts in the Application and the actual amounts of PTY plant. Of course, there is also the accumulated depreciation associated with the PTY plant additions as just discussed earlier. Both the utility plant true-ups and the associated accumulated depreciation are shown on the respective Schedules TJC-4 on pages 1 and 2 as Adjustment (b). Both the PTY plant true-ups and the associated accumulated depreciation are shown in the two tables below also:

[BEGIN CONFIDENTIAL]

PTY Plant True-up Adjustments

System	Increase / (Decrease) Utility Plant in Service
Bella Vista Water	
Rio Rico Water	
Rio Rico Sewer	

PTY Accumulated Depreciation True-up Adjustments

System	Increase / (Decrease) Accumulated Depreciation
Bella Vista Water	
Rio Rico Water	
Rio Rico Sewer	

[END CONFIDENTIAL]

Q. What is RUCO's third component of four UPIS and A/D adjustments on Schedule TJC-4 that is a part of RUCO rate base adjustment 1?

A. The third component of four UPIS and A/D depreciation adjustments that is part of RUCO rate base adjustment #1 is the disallowance of PTY plant exceeding 6-months TY end.

Q. How did RUCO determine the 6-month cutoff point for PTY plant that was completed and in service?

A. The information was provided by the Company in response to RUCO DR 2.10.

Q. What adjustments were necessary to remove the PTY plant that exceeded the six-month TY end cutoff point?

A. The adjustments are shown on Schedules TJC-4 as Adjustment (c) on page 1 and in the table below:

PTY Plant Disallowance

System	Increase / (Decrease) PTY Plant Disallowance
Bella Vista Water	($737,935)
Rio Rico Water	($821,541)
Rio Rico Sewer	($121,973)

The accumulated depreciation adjustment calculated by RUCO also needs to be adjusted. This adjustment is show on Schedule TJC-4 as Adjustment (c) on page 2 and is shown in the table below:

PTY Plant Accumulated Depreciation Disallowance

System	Increase / (Decrease) PTY Plant Disallowance
Bella Vista Water	($31,149)
Rio Rico Water	($16,242)
Rio Rico Sewer	($2,845)

Q. Please explain RUCO's fourth and final component of the four UPIS and A/D adjustments on Schedule TJC-4 that is a part of RUCO rate base adjustment.

A. The fourth and final component of RUCO rate base adjustment #1 is the disallowance of the allocated corporate plant.

Q. What is RUCO's rationale for disallowing the allocated corporate plant?

A. There are three reasons that RUCO recommends the disallowance of the allocated corporate plant as shown below:

1. It appears to be in Canadian dollars and thus never converted to US dollars;
2. There also appears to be leasehold improvements made and paid for APUC, which are also being allocated to the Arizona utilities, for two different tenants;
3. The allocation for the land and building is not following the Company's own Cost Allocation Manual ("CAM"). The same holds true for the HRIS computer system.

Q. What adjustments are necessary to remove the allocated corporate plant?

A. The adjustments are shown on Schedule TJC-4 as Adjustment (d) for plant on page 1 and for accumulated depreciation on page 2 of the same schedule. These two adjustments for plant and accumulated depreciation are shown in the two respective tables below:

Allocated Corporate Plant Disallowance

System	Increase / (Decrease) Allocated Corporate Plant Disallowance
Bella Vista Water	($239,792)
Rio Rico Water	($161,372)
Rio Rico Sewer	($67,986)

Allocated Corporate Plant Disallowance

System	Increase / (Decrease) Allocated Corporate Plant A/D Disallowance
Bella Vista Water	($8,033)
Rio Rico Water	($5,406)
Rio Rico Sewer	($2,277)

The total adjustment of the four component parts is shown on Schedule TJC-3 as rate base adjustment #1 and in the table below:

RUCO Rate Base Adjustment #1 - Gross Utility Plant in Service

System	Increase / (Decrease) Gross Plant in Service
Bella Vista Water	($868,497)
Rio Rico Water	$109,595
Rio Rico Sewer	($616,175)

RUCO Rate Base Adjustment #1 – Accumulated Depreciation

	Increase / (Decrease) Allocated Corporate Plant A/D Disallowance
Bella Vista Water	($2,308)
Rio Rico Water	($41,899)
Rio Rico Sewer	($2,184)

That concludes RUCO rate base adjustment #1.

Rate Base Adjustment #2 – 8 – Intentionally Left Blank

Rate Base Adjustment #9 – Accumulated Deferred Income Taxes ("ADIT"):

Q. Please explain RUCO's ADIT rate base adjustment #9?

A. This adjustment is driven by the UPIS, A/D, AIAC, CIAC, and the effective federal and state tax rates recommended by RUCO.

Q. Did RUCO discover any problems with the ADIT as filed by the Company?

A. Yes.

Q. Please describe the problem you discovered with the ADIT as filed by the Company.

A. There was a link problem with the Plant in Service balance in the Company's filing. I issued a DR informing the Company of my discovery. The Company agreed with RUCO in response to the data request.. The Company did say it would be corrected in rebuttal though.

Q. What adjustments were necessary to reflect the rate base items recommended by RUCO that drive the ADIT calculation?

A. The ADIT adjustments are shown on the respective Schedules TJC-3 as rate base adjustment #9 and also shown in the table below:

Accumulated Deferred Income Taxes ("ADIT")

System	Increase / (Decrease) ADIT Adjustments
Bella Vista Water	$958,822
Rio Rico Water	($20,281)
Rio Rico Sewer	($99,899)

Rate Base Adjustment #10 – Cash Working Capital:

Q. Please explain the concept of cash working capital?

A. A company's cash working capital requirement represents the amount of cash the company must have on hand to cover any differences in the time period between when revenues are received and expenses must be paid. The most accurate way to measure the working capital requirement is via a lead/lag study. The lead/lag study measures the actual lead and lag days attributable to the individual revenues and expenses.

Q. Did the Company include a lead/lag study in its Application?

A. Yes.

Q. Did Rio Rico Water & Sewer include a lead/lag study in its prior rate proceeding filings?

A. No. From my research of prior Rio Rico rate cases, the Company either used the formula method of calculating cash working capital or simply did not request an allowance for working capital at all. The formula method of calculating cash working

generally results in positive cash working requirements and is not appropriate for a utility the size of the systems included in this current Application. Thus, the ACC normally requires any company the size of Bella Vista and Rio Rico to file a lead/lag study when requesting an allowance for working capital, which the Company did in this case.

Q. Did RUCO make adjustments to any components of the Company's lead/lag study?

A. Yes.

Q. Please explain RUCO's cash working capital adjustments made to the Company's lead/lag study.

A. RUCO made adjustments to account for its recommended levels of operating expenses to be included in the lead/lag study. RUCO added the component for interest expense, which the Company failed to include in its lead/lag study. RUCO used the interest expense (i.e. interest expense is recurring in nature and has contractual terms to be met) proposed by the Company in its financing application. RUCO also removed the rate case expense included by the Company as an expense that is not an on-going expense in accounting terms. Rate case expense is more appropriately referred to as a prepaid expense. Cash working capital calculations measure recurring and future contractual cash outlays of cash such as interest expense.

For Bella Vista and Rio Rico Water, RUCO adjusted the revenue lag days downward by three-days as the Company's eight-day billing period is excessive considering the Company's substantial investment in automatic meter reads ("AMR"). In RUCO's opinion, the billing period of three-days is more appropriate for a Company heavily invested in AMR technologies. Three-days would allow the Company a day or two to actually get the meter reads and another day or two in order to download the meter reads into its billing system and print the bills to be mailed out. RUCO believes its five billing days is plenty sufficient to automatically read the meters and to prepare the bills to be mailed out. The Company's eight days for a billing lag evidently is not accounting for its AMR plant investments in rate base.

For Rio Rico Sewer, RUCO adjusted the revenue lag days to the number of daysthe Company used in its Liberty Black Mountain Sewer case most recent filing, which was approximately .56 revenue lag days. Generally, sewer utilities are prepaid. That means the customer pays for the monthly service prior to receiving the service for the month. The Company's own work papers provided in this filing clearly states, "Customers billed at beginning of of [sic] month of service" whereas the two water utilities, Bella Vista and Rio Rico Water, work papers stated the customers are billed at the end of the month. RUCO has included the Company's revenue lag days Excel work papers as RUCO Exhibit 2 that supports RUCO's adjustment.

Q. What adjustments to cash working capital does RUCO recommend?

A. RUCO's adjustments for cash working reduces rate base for the three systems as shown in the table below:

Accumulated Deferred Income Taxes ("ADIT")

System	Increase / (Decrease) Cash Working Capital Adjustments
Bella Vista Water	($54,886)
Rio Rico Water	($58,084)
Rio Rico Sewer	($123,976)

Q. Does that complete RUCO's recommended rate base adjustments in this proceeding?

A. Yes.

Q. Please continue to RUCO's operating income adjustment recommendations.

A. The next section of RUCO's testimony will address each operating income adjustment that RUCO recommends in this proceeding below:

VII. RUCO OPERATING INCOME ADJUSTMENTS 1 – 17:

Operating Income Adjustment #1 – Depreciation Expense:

Q. Please explain RUCO's depreciation expense adjustments.

A. RUCO's depreciation expense adjustments reflect its recommended level of depreciable plant balances that were previously discussed in the rate base adjustments of this testimony.

Q. Are there any other issues regarding depreciation expense that RUCO wants to address?

A. Yes. In the Bella Vista Water system, the Company failed to include one fully depreciated vintage year 2009 plant item in Transportation Equipment.

Q. What adjustments to depreciation expense does RUCO recommend?

A. RUCO's adjustments to depreciation expense for the three systems are shown in the table below:

Depreciation Expense

System	Increase / (Decrease) Depreciation Expense Adjustments
Bella Vista Water	($69,393)
Rio Rico Water	$9,730
Rio Rico Sewer	($40,924)

Operating Income Adjustment #2 – Property Tax Expense:

Q. Please explain RUCO's recommended property tax expense adjustment.

A. RUCO's recommended property tax expense adjustment utilizes the same methodology used in the Company's filing. Properety tax expense is largely driven by the recommended revenues, assessment ratio, and property tax rate. RUCO has accepted the Company's calculation of property tax expense but made adjustments based on RUCO's revenue calculation.

Q. What adjustments are necessary to property taxes to account for RUCO's levels of adjusted TY and recommended revenues identified above?

A. RUCO's adjustments to property tax expense for the adjusted TY is shown in the first table and its recommended going forward level of property tax expense is shown in the second table for the three systems as shown in the two tables below:

Adjusted Test Year Property Tax Expense

System	Increase / (Decrease) Property Tax Expense Adjustments
Bella Vista Water	($53,777)
Rio Rico Water	$4,949
Rio Rico Sewer	$149

Recommended Level of Property Tax Expense

System	Increase / (Decrease) Property Tax Expense Adjustments
Bella Vista Water	$5,560
Rio Rico Water	$4,301
Rio Rico Sewer	($536)

Operating Income Adjustment #3 – Incentive Pay:

Q. Please explain RUCO's adjustment for incentive pay?

A. RUCO believes the ratepayers should share the burden of this expense with the shareholders of the Company. The expense is not contractual and there is no certainty the Company will maintain the same level of incentive payments in future years.

Q. How did RUCO obtain the level of incentive pay in the TY that was rewarded to employees for great service and value added to the organization's shareholders?

A. The pay incentive rewarded above and beyond the normal salaries and wages that exceed an equilibrium status was in response to RUCO DR 2.04.

Q. What adjustment was necessary for the three systems to recognize the that ratepayers receive a benefit when employees achieve high levels service that supplants status quo while also providing great financial benefits for the organization's shareholders equity growth both at the same time?

A. In order to recognize the benefits achieved by both ratepayers and shareholders, it was necessary to make the adjustment for each of the three systems as show in the table below:

Incentive Pay Expense

System	Increase / (Decrease) Incentive Pay Adjustments
Bella Vista Water	($34,853)
Rio Rico Water	($20,320)
Rio Rico Sewer	($8,554)

Operating Income Adjustment #4 – Removal of 2nd Pay Raise Increase:

Q. Please explain RUCO's removal of the second pay raise requested in the Company's Application.

A. The Company calculated a pay raise of three percent for its employees, which RUCO believes to be fair and reasonable. Then, in the same calculation, it compounds a second pay raise on top of the first pay raise, which is 3.09 percent when accounting for the compounding affect. RUCO has removed the effect of the second compounding pay raise in favor of ratepayers in this instance.

Q. What adjustment was necessary for the three systems to remove the second compounding pay raise that was on top of the first pay nraise that RUCO found to be fair and reasonable?

A. In order to recognize the first fair and reasonable three percent pay raise and not the second compounded pay raise on top of the first one, it was necessary to make an adjustment for each of the three systems as show in the table below:

Removal of Second Pay Raise

System	Increase / (Decrease) 2nd Pay Raise Adjustments
Bella Vista Water	($45,000)
Rio Rico Water	($28,947)
Rio Rico Sewer	($2,954)

Note: The calculation for this adjustment took into consideration RUCO Operating Adjustments #10 and #13 that reduced labor expense. That adjustment is forthcoming.

Operating Income Adjustment #5 – Declining Usage:

Q. What adjustment does RUCO recommend to the Company's declining usage adjustment as proposed in its Application?

A. RUCO's declining usage adjustment for the two water systems is in the following table. A declining use adjustment was not requested by the Company in the Rio Rico Sewer System.

Declining Usage

System	Increase / (Decrease) Declining Usage
Bella Vista Water	$67,248
Rio Rico Water	$75,187
Rio Rico Sewer	$0

Note: This adjustment is being reflected as a net adjustment (i.e. Revenue – Expense).

Q. You mentioned above that RUCO's declining usage adjustment for direct testimony is a placeholder adjustment. What do you mean by the adjustment being a placeholder adjustment?

A. RUCO issued a data request #8 to the Company a few days ago requesting all the billing determinates be provided for year 2015, which is one-year post TY in this case. If and when RUCO receives that response to the DR, RUCO will input all the billing determinates for 2015 into its rate design model and analyze the results. Notwithstanding any extenuating circumstances regarding the results of the revenue produced using the 2015 billing determinates, RUCO will agree with the Company's that a declining usage adjustment of some magnitude is fair and reasonable.

Q. Doesn't RUCO generally disallow declining usage adjustments in the past?

A. Yes, generally. RUCO has recommended one declining usage adjustment in a case that a former RUCO analyst was assigned. If the Company can show using actual historical billing determinates, not considering some extenuating circumstance such as the loss of a customer or two etc., RUCO will consider a declining usage adjustment.

RUCO will never recommend a declining usage adjustment when a company tries and support such an adjustment with statistical regression analyses and the like.

Operating Income Adjustment #6 – Intentionally Left Blank

Operating Income Adjustment #7 – Postage Decrease

Q. Please explain RUCO's adjustment to the Company's Miscellaneous Expense account for a postage expense decrease.

A. On April 7, 2016, the US Postal Service mandated a postage decrease of two-cents. RUCO believes a two-cent postage decrease adjustment is just as imperative as the Company believes a two-cent postage increase is warranted. I cannot recall any Company that files a rate case that RUCO has become an intervenor that has not asked for the common two-cent postage increase. This is a known and measurable decrease in cost just as when utilities are granted postage increase case after case. RUCO always accepts the adjustment as a real increase of doing

business. Whenever there is a decrease in the same expense, the sword cuts both ways – up or down.

Q. What adjustment does RUCO recommend to realize the decrease mandated by the US Postal Service that became effective on April 7, 2016?

A. The adjustment necessary to realize the US Postal Service decrease in postage for each of the three systems is shown in the table below:

Postage Decrease

System	Increase / (Decrease) Postage Decrease
Bella Vista Water	($2,341)
Rio Rico Water	($1,164)
Rio Rico Sewer	($374)

Operating Income Adjustment #8 – Intentionally Left Blank

Operating Income Adjustment #9 – Algonquin Power & Utilities Corp ("APUC") Non-Labor Corporate Cost Allocations:

Q. Please describe RUCO's adjustment to the APUC non-labor cost allocations.

A. RUCO's adjustment adheres to several past Commission Decisions that found certain allocated expenses, at the APUC corporate level, do not benefit Arizona ratepayers. The first Decision I will reference is Commission Decision No. 71865 at page 25, where the Commission found four categories of the APUC cost allocations beneficial to Arizona ratepayers. The four categories allowed in that Decision included legal, tax, audit, and depreciation expense. The second decision

I will reference is Commission Decision No. 72251 that allowed four components "audit, tax, legal, and license fees and permits,"[2] that the Commission determined were of benefit to Arizona ratepayers.

The last case RUCO will reference involved is a Rio Rico rate case, Commission Decision No. 72059 at pages 21-23, where the Commission reached a similar conclusion regarding the APUC cost allocations. That decision stated the following:

> "Although shared services models can be an efficient method to operate utilities and can provide benefits to utility ratepayers that might not be able to be obtained if the utility were operating on a stand alone basis, it is important that the Commission carefully review the shared costs that are being sought from ratepayers. The utility is a captive of its parent, and may not have recourse to dispute charges incurred at the parental level and allocated to it, just as ratepayers are the captives of the utility. The Commission must scrutinize the common costs and allow only those costs which provide a benefit to the utility ratepayers. As we noted in the Black Mountain Sewer rate case, the standard for what the utility would have incurred as a stand alone entity may not necessarily be the standard for allowing the recovery of common costs. The common costs must be reasonable based on the size of the utility. The entity seeking recovery must show that the type of cost and the amount allocated to the utility are reasonable and reasonably necessary for the provision of utility service. What the utility would need to pay on a stand alone basis may provide a check on the reasonableness of the expense."

[2] ACC Decision No. 72251 on page 29 at lines 4-5.

Q. Can RUCO provide a brief synopsis of the prior Commission Decisions to which RUCO has referred to in the earlier pages?

A. Yes. A synopsis is provided below:

LIBERTY UTILITIES CORPORATE COST ALLOCATIONS

In Liberty Utilities – Black Mountain Sewer's Docket No. SW-02361A-08-0609, the Commission found in Decision No. 71865, dated September 1, 2010, and stated the following:

> *Based on the record in this case, we adopt the following allocation of common corporate costs that we believe represents a level that may be considered reasonable and necessary for the provision of service by BMSC.*
>
> *1. Allowable common expenses for BMSC in this case shall be limited to those items identified by Staff (i.e., audit, tax, legal, depreciation);*
>
> *We believe allowing a total of $9,716 of allowable common corporate central office expenses for BMSC represents a reasonable amount in this proceeding based on consideration of the Company's overall size, the level of necessary services, and efficiencies available through the APIF shared services methodology.*

In Liberty Utilities – Rio Rico Water and Sewer's Docket No. WS-02676A-09-0257, the Commission found in Decision No. 72059, dated January 6, 2011, and stated the following:

> *We find that the APT costs that are necessary for APIF to be listed on the TSX provide a direct benefit to RRUI, as they enable RRUI to receive the benefits of APIF's access to capital markets. Thus, we find that the costs related to audit, tax services, legal and license fees and permits should be allocated to RRUI. The amount of the costs in each category has been sufficiently reviewed and the invoices that should have been removed, have been removed from the pool. Thus, in this case, we will allow APT central costs related to audit, tax, legal, and license fees and permits to be allocated to RRUI as set forth below.*
>
> *We continue to find the methodology adopted in the Black Mountain Sewer case to be reasonable.*
>
> *1. Allowable common APT expenses for RRUI in this case shall be limited to audit, tax, legal and license fees and permits;*
>
> *Using the methodology described above, the total APT cost to be allocated to RRUI's water division in the test year is $33,744, and to the wastewater division is $11,130.*

We believe this level of common costs represents a reasonable amount in this proceeding based the size of the Company and the benefits provided.

In Liberty Utilities - Bella Vista, Northern Sunrise, and Southern Sunrise's Docket Nos. W-02465A-09-0411, W-20453A-09-0412, and W-20454A-09-0413, the Commission found in Decision No. 72251, dated April 7, 2011, and stated the following:

Additionally, the common costs sought to be allocated to the regulated utilities must be reasonable based on the size of the utility. A small utility in southern Arizona may not need financial and strategic planning expertise beyond that provided by the Liberty Water personnel. Applicants lave not convinced us that BVWC ratepayers should be responsible for the Central Office Costs related to rent, office expenses and depreciation associated with the Ontario office.

Thus, we continue to adopt the general allocation methodology we most recently approved in the RRUI rate case, as follows:

1. *Allowable common APT expenses for BVWC in this case shall be limited to audit, tax, legal and license fees and permits;*

In the test year, the total APT Central Office costs associated with audit, tax, legal and license fees and permits was $1,303,712. Of that amount, 22.05 percent, or $287,468, is allocable to Liberty Water; of the Liberty Water amount, 14.52 percent, or $41,740, is applicable to BVWC.

Q. In addition to the Commission's three prior decisions listed above and a fourth that was <u>not</u> listed, does RUCO have any additional concerns with the allocation process is this case

A. Yes. The Company's business model and the many layers of costs that are being allocated creates additional concersn to RUCO.

Q. Why is APUC's business model being so closly scrutized by RUCO is this case?

A. The answer to that question is found in the NARUC Guidelines for Cost Allocations that was presented in past rate cases by Commission Staff.. Per the NARUC

guidelines whenever any company with a business model made up of a compilation of regulated and non-regulated operating subsidiaries, it is going to draw a higher level of scrutiny not to mention the higher costs associated with the present model or perhaps the CAM currently being utilized to allocate APUC's costs, RUCO's analysis in this current case, indicates that the costs have only increased as the parent APUC has grown larger through APUC's many recent acquisitions.

Q. What solution does RUCO recommend to remedy the allocation contention?

A. RUCO would recommend adopting the Massachusetts Allocation Methodology for cost allocations. The Company (APUC) has all the components in hand to do so. In fact, two of the three allocators are present now with a slight tweak from using net plant to gross plant and add the Massachusetts Allocation Methodology's third allocator. The allocation methodology is the most preferred and recognizable allocation methodology for a business model such as APUC.

Q. What adjustment is necessary to adhere to past Commission findings for the cost allocations?

A. The APUC non-labor cost allocation adjustments are shown for each of the three systems in the table below:

[BEGIN CONFIDENTIAL]

APUC Non-Labor Cost Allocations

System	Increase / (Decrease) APUC Non-Labor Allocations
Bella Vista Water	
Rio Rico Water	
Rio Rico Sewer	

[END CONFIDENTIAL]

Operating Income Adjustment #10 – APUC, Liberty Utility Canada ("LUC"), Liberty Algonquin Business Services ("LABS") or APUC, LUC, and LABS Labor Costs:

Q. Please explain RUCO's adjustment to APUC, LUC, and LABS labor costs.

A. RUCO's proposed adjustment for the Companys labor costs allocations is based on the same rational as RUCO's adjustment #9 for APUC allocated non-labor costs. In that adjustment, RUCO is proposing 55.04 percent of APUC's allocated non-labor costs. This adjustment allows the same 55.04 percent of APUC, LUC, and LABS labor allocations

Q. What adjustment is necessary to remove 44.96 percent of APUC, LUC, and LABS cost allocations?

A. The APUC non-labor cost allocations adjustments are shown for each of the three systems in the table below:

[BEGIN CONFIDENTIAL]

APUC, LUC, and LABS Labor Cost Allocations

System	Increase / (Decrease) APUC, LUC, & LABS Labor Allocations
Bella Vista Water	
Rio Rico Water	
Rio Rico Sewer	

[END CONFIDENTIAL]

Operating Income Adjustment #11 – Intentionally Left Blank

Operating Income Adjustment #12 – Intentionally Left Blank

Operating Income Adjustment #13 – Liberty Utilities or LU 8020

Q. Please explain RUCO's adjustment for LU 8020 allocations, which is the local corporate office in Avondale, Arizona.

A. Using Bella Vista as an example, the Company's Application was predicated on a Bella Vista allocation factor of 10.96 as can be seen in RUCO Exhibit 3, which was provided by the Company in response to Staff DR 2.7. RUCO Exhibit 1 is LU 8020 cost pool for labor to be allocated to various operating subsidiaries of APUC. The exhibit identifies Bella Vista's allocation factor as 13.34 percent, which is obviously not the 10.96 percent that the other allocations were predicated. This adjustment simply removes the difference between the 10.96 percent and the 13.34 percent. The same scenario held true for the other two systems in this case.

Q. What adjustment is necessary to remove the costs due to the differences in the allocation factors shown in Staff DR response 2.7 and that as provided in RUCO Exhibit 1 LU 8020 Labor Cost Allocations for the respective three systems?

A. The LU 8020 labor cost allocations adjustments are shown for each of the three systems in the table below:

[BEGIN CONFIDENTIAL]

APUC, LUC, and LABS Labor Cost Allocations

System	Increase / (Decrease) LU 8020 Allocations
Bella Vista Water	
Rio Rico Water	
Rio Rico Sewer	

[END CONFIDENTIAL]

Operating Income Adjustment #14 – Intentionally Left Blank

Operating Income Adjustment #15 – Intentionally Left Blank

Operating Income Adjustment #16 – Intentionally Left Blank

Operating Income Adjustment #17 – Income Tax Expense:

Q. Have you adjusted the all Company's income tax expense based on RUCO's recommended adjusted operating income?

A. Yes.

Q. What adjustments are necessary to income taxes based on RUCO's recommended adjusted operating income?

A. The income tax adjustments are shown for each of the three systems in the table below:

Income Tax Expense

System	Increase / (Decrease) Income Tax Expense
Bella Vista Water	$191,092
Rio Rico Water	$99,092
Rio Rico Sewer	$33,568

Q. Have you included an interest synchronization calculation in your computation of income tax expense?

A. Yes. The interest synchronization calculation computes an interest expense deduction for income taxes. The interest synchronization calculation is RUCO's adjusted TY rate base multiplied by the weighted cost of the Company's proposed debt. The income tax gross up revenue conversion factor includes an element for the increase in property taxes due to RUCO's recommended level of decreased revenues.

Q. Are there any other areas of operating income that RUCO wants to discuss not already addressed?

A. Yes. RUCO would recommend that the Rio Rico Sewer monthly Nogales International Boundary wastewater operating and maintenance expenses, total

annual expense level of $108,999, be recorded to Purchased Wastewater Expense account rather than recorded in Contractual Services – Other Expense account. This was an issue in the prior Rio Rico utilities case.

Q. Did RUCO recommend in its schedules that the expense be recorded to Purchased Wastewater Expense account rather than recorded in Contractual Services – Other Expense account?

A. RUCO's schedules do not reflect those expenses being recorded to the Purchased Wastewater Expense account rather than recorded in Contractual Services – Other Expense account. It will be reflected in its surrebuttal schedules.

Q. Please continue to RUCO's positions regarding the other issues and surcharges as requested in the Company's filing.

A. The last section, Section VIII, of this testimony will address RUCO's positions regarding the Company's other issues and adjuster surcharge mechanisms as requested.

VIII. RUCO POSITIONS ON THE OTHER COMPANY ISSUES AS REQUESTED:

Purchased Power Adjustment Mechanism ("PPAM"):

Q. What is RUCO's position and recommendation regarding the Company's requested purchased power adjustment mechanism?

A. RUCO does not believe that this adjustor mechanism complies with Arizona's fair value requirement.

Q. Would you please explain why the PPAM should be denied by the Commission in this case as it was in the AWC rate case?

A. I am not an attorney and am not offering a legal opinion. I have a general understanding of the law. Adjustment mechanisms are generally allowed in Arizona for narrowly defined operating expenses which are 1) volatile and 2) very large expense items (such as purchased coal, oil, and gas in the case of electric utilities and purchased gas for natural gas distribution companies). Purchase power does not meet these requirements.

Property Tax Adjustment Mechanism ("PTAM"):

Q. What is RUCO's position and recommendation regarding the Company's requested property tax adjustment mechanism ("PTAM")?

A. RUCO's position on the Company's proposed PTAM is it also constitutes single issue ratemaking and recommends the Commission deny the Company's request

for a PTAM. Please see RUCO's previous PPAM regarding its position and recommendation as it applies to the Company's requested PTAM here also.

Q. Does your silence on any of the issues, matters, findings, or lack of adjustment to and for other ratemaking components addressed or not in your testimony of any of the witnesses for the Company constitute your acceptance of their positions on such issues, matters or findings?

A. No, it does not.

Q. Does that complete RUCO's recommendations for the other issues in this proceeding?

A. Yes.

Q. Does this conclude your direct testimony?

A. Yes, it does.

APPENDIX 1

Qualifications of Timothy J. Coley

WORK HISTORY

July 2000 – Present: **RESIDENTIAL UTILITY CONSUMER OFFICE,** Phoenix, Arizona
Public Utilities Analyst V. The Residential Utility Consumer Office (RUCO) is a consumer advocate group providing residential consumers a voice in utility regulation and backed by a professional staff with legal and financial expertise. Responsibilities include: audited, reviewed and analyzed public utility companies various filings; prepared written testimony, schedules, financial statements, and spreadsheet models and analyses. Testified and stand cross-examination before the Arizona Corporation Commission.

January 2000 - April 2000: **JACKSON HEWITT TAX SERVICE,** Phoenix, Arizona
Tax Preparer. Interviewed clients, determined tax situation, and explained how the tax laws benefited them in their specific situation. Ensured that each customer received every deduction that they were entitled. Prepared individual and business income tax returns, which best utilized each specific situation that minimized their tax obligations.

May 1998 - November 1999: **BENEFITS CONSULTING,** Cypress, Texas
Consultant Assistant. The consulting firm specialized in alleged medical claim charges brought against the government of Harris County in Houston, Texas. Assisted in the review, examination, and analysis of the attested charges. Determined if the purported medical claim charges were prudent, customary, and reasonable for the alleged sustained injuries. The firm analyzed cases for both the County's Risk Department and Attorneys Office.

January 1992 - April 1998: **PHOENIX SERVICES,** Villa Rica, Georgia
Owner. Provided landscaping services primarily in a high growth gated community where the Property Owners' Association approved mandated ordinances to be strictly adhered and abided by. Coordinated and supervised all aspects of projects from inception to completion, from master planning to site design to installation.

May 1989 - October 1991: **GEORGIA PUBLIC SERVICE COMMISSION,** Atlanta, GA
Senior Auditor. The Public Service Commission (PSC) was responsible for regulating many intrastate telecommunications, electric, and gas utility industries operating in Georgia. It was the PSC's job to ensure that consumers received adequate and reliable service at reasonable rates. It must also assure the utility companies and investors an opportunity to earn a fair rate of return on prudent investments. The Commission participated significantly in Georgia's economic health and growth. I was promoted to the PSC's Electric/Gas Division where I examined, verified, and analyzed various financial documents, accounting records, reports, ledgers, and statements. In addition, I was assigned to automate the PSC's Electric Division where I utilized a computer application process that I had developed earlier while with the (PSC) Telecommunication Division. I was later ascribed to work in conjunction with the Engineering Department and established a procedure to track and compare costs of operation and maintenance (O&M) expenses of nuclear electric generating plants. This effort determined a comparative price per kilowatt-hour produced that influenced the awareness for the company to control the O&M costs, which benefited the consumer through lower prices.

- Developed computer application system that streamlined audit procedures by 30 – 40%.
- Various other schedules were implemented to track, maintain, and control costs.

GEORGIA PUBLIC SERVICE COMMISSION (continued)

November 1986 - April 1989: **Georgia Public Service Commission,** Atlanta, Georgia
Auditor. Regulated telecommunications and also oversaw the deregulation process that was currently under way in that industry. Examined and analyzed accounting records to determine financial status of companies and prepared financial reports concerning audit findings. Reviewed data including payroll, time sheets, purchase vouchers, cash receipt ledgers, financial reports, and disbursements. Verified statewide telephone company transaction classifications and documentation.

- Developed computer application utilizing Lotus to completely automate and streamline the entire telecommunication audit process. The results saved 25% in field audit time and produced a product of professional appearance.
- Created, coordinated, and implemented "Operational Project Training" automated procedure-training program. Trained and supervised staff of five auditors.
- Computerized "Desk Audit Analysis" program that identified 11 independent telephone companies in the state of over-earning and resulted in $4.1M annual savings to the Georgia ratepayers affected.

October 1985 - October 1986: **Georgia Public Service Commission,** Atlanta, Georgia
Junior Auditor. Assisted in planning and performing telecommunication audit engagements. Examined financial records, internal management control, correspondence, bills, and records of services delivered in order to verify or recommend compliance with company specifications contained in contracts, agreements, regulations, and/or laws.

- As a special project, I was assigned to analyze the results of a survey designed to evaluate "Interest in Organizing a Multi-State Nuclear Management Review Group" by the Director of Utilities. Wrote the draft and findings for the speech that was presented to all participatory commissions.

PROFESSIONAL MEMBERSHIPS

- Elected Member of the National Honor Society for Public Affairs and Administration.
- Active Member of Delta Sigma Pi - Professional Business Fraternity.

SPECIAL TRAINING AND CERTIFICATES

- The Graduate School of Business Administration - Michigan State University; completed the Annual Regulatory Studies Program of the National Association of Regulatory Utility Commissioners.
- Completed Graduate Exit Paper on "Deregulation of the Electric Industry".
- Attended Eastern Utility Rate School in 2000 and 2005.

EDUCATION

- Currently enrolled at Arizona State University - West in the Post Baccalaureate Graduate Certificate Program in Accountancy with two courses remaining.
- Master of Public Administration, State University of West Georgia, 1997, GPA 3.5.
- BS Business Management & Administration, Minor in Economics, Sorrel School of Business, Troy State University, 1985.
- AA Business Administration, Miles Community College, 1981.

RESUME OF PUBLIC UTILITY RATE CASES & AUDITS PARTICIPATION

Residential Utility Consumer Office For Years 2000 To Present

Arizona-American Water Company – Docket No. WS-01303A-05-0405

Arizona Public Service Co. – Docket No. E-01345A-03-0437

Tucson Electric Power Company – Docket No. E-01933A-04-0408

UniSource Merger – Docket No. E-04230A-03-0933

Arizona-American Water Company – Docket No. WS-01303A-02-0867

Arizona Water Company (Eastern Group) – Docket No. W01445A-02-0619

Litchfield Park Service Company – Docket Nos. W-01427A-01-0487 &
SW-01428A-01-0487

Arizona Water Company (Northern Group) – Docket No. W-01445A-00-0962

Rio Verde Utilities, Inc. – Docket Nos. W-02156A-00-0321 &
SW-02156A-00-0323

Arizona-American Water Company (Paradise Valley) –
Docket Nos. W-01303A-05-0405 &
W-01303A-05-0910

Arizona-American Water Company (Mohave District) –
Docket No. WS-01303A-06-0014

Arizona-American Water Company (Sun City & Sun Cit West Wastewater) –
Docket No. WS-01303A-06-0491

Arizona-American Water Company - Docket No. W-01303A-07-0209

Chaparral City Water Company – Docket No. W-02113A-07-0551

Arizona-American Water Company - Docket No. W-01303A-08-0227

Residential Utility Consumer Office For Years 2000 To Present (cont'd)

Arizona Water Company - Docket No. W-01445A-08-0440

Far West Water & Sewer Company – Docket No. WS-03478A-08-0608

Rio Rico Utilities, Inc. – Docket No. WS-02676A-08-09-0257

Bella Vista Water Company – Docket No. W-02465A-09-0411

Goodman Water Company – Docket No. W-02500A-10-0382

Arizona Water Company – Western Group – Docket No. W-01445A-10-0517

Pima Utility Company – Docket No. W-02199A-11-0329 et al.

Arizona Water Company, San Manuel System ACRM – Docket No. W-01445A-11-0310

Rio Rico Utilities, Inc. – Docket No. WS-02676A-12-0196

Tucson Electric Power Company – Docket No. E-01933A-12-0504

Far West Water & Sewer Company – Docket No. WS-03478A-12-0307

Litchfield Park Service Company – Docket No. SW-01428A-13-0042 et al.

Utility Source – Docket No. WS-04235A-13-0331

EPCOR – Docket No. WS-01303A-14-0010

Black Mountain Sewer Company – Docket No. SW-02361A-15-0207 et al.

Bella Vista Water and Rio Rico Water & Sewer Companies – Docket No. W-02465A-15-0367 et al.

Georgia Public Service Commission For Years 1985 – 1991

Atlanta Gas Light Company

Georgia Power Company

Atlanta Gas Light Company (Management Audit)

Georgia Power Company

Trenton Telephone Company

Fairmount Telephone Company

Ellijay Telephone Company

GTE, Inc.

ALL-TEL Telephone Company

Citizens Utilities Co.

Ball Ground Telephone Company

Lanett Telephone Company

Brantley Telephone Company

Blue Ridge Telephone Company

Waverly Hall Telephone Company

St. Marys Telephone Company

Darien Telephone Company

Statesboro Telephone Company

Statesboro Telephone Co-op

Wilkes Telephone Company

ATTACHMENT 1

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ATTACHMENT 2

Rio Rico Utilities - Wastewater Division - dba Liberty Utilities
Revenue Lead/Lag Analysis
Revenue

Line No.			
1			
2	**Components**		Days
3	Service Lag (Lead)		15.00
4	Billing Lag	Average # days to bill	8.00
5	Payment Lag	See Accounts Receivable Turn-Over Analysis	24.96
6	Total Revenue Lag		47.96
7			
8	**Service Lag**		
9	Customers billed at beginning of of month of service.		
10			
11			
12	**Billing Lag**		
13	Assume 1 day billing lag.		
14			
15			
16	**Payment Lag**		
17	See Accounts Receivable Turn-Over Analysis		
18			
19			
20			

Rio Rico Utilities - Water Division. - dba Liberty Utilities
Revenue Lead/Lag Analysis
Revenue

Line No.			Days
1			
2	**Components**		
3	Service Lag (Lead)		15.00
4	Read/Billing Lag	Average # days to bill	8.00
5	Payment Lag	See Accounts Receivable Turn-Over Analysis	24.96
6	Total Revenue Lag		47.96
7			
8	**Service Lag**		
9	Customers billed at end of month of service.		
10			
11			
12	**Billing Lag**		
13	Assume 10 day billing lag.		
14			
15			
16	**Payment Lag**		
17	See Accounts Receivable Turn-Over Analysis		
18			
19			
20			

ATTACHMENT 3

CONFIDENTIAL

BELLA VISTA
REDACTED SCHEDULES

TABLE OF CONTENTS TO TJC SCHEDULES

SCH. NO.	PAGE NO.	TITLE
TJC-1	1 of 2	REVENUE REQUIREMENT
TJC-1	2 of 2	GROSS REVENUE CONVERSION FACTOR ("GRCF")
TJC-2	1	RATE BASE SUMMARY
TJC-3	1	RATE BASE ADJUSTMENTS
TJC-4	1 of 2	SUMMARY OF UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENTS
TJC-4	2 of 2	SUMMARY OF UPIS ACCUMULATED DEPRECIATION ("A/D") ADJUSTMENTS
TJC-4(a)	1 - 9	RECONSTRUCTION OF UPIS & A/D SCHEDULES
TJC-4(b)	1 - 2	TRUE-UP POST TEST YEAR UPIS & A/D PER RUCO DR 2.10
TJC-4(c)	1 - 2	POST TEST YEAR UPIS & A/D DISALLOWANCE EXCEEDING 6-MONTHS TEST YEAR END
TJC-4(d)	1 - 2	CORPORATE ALLOCATED UPIS & A/D DISALLOWANCE ADJUSTMENTS
TJC-5	1	ADVANCES IN AID OF CONSTRUCTION ("AIAC") - NOT USED
TJC-6	1	CONTRIBUTIONS IN AID OF CONSTRUCTION ("CIAC") - NOT USED
TJC-7	1	INTENTIONALLY LEFT BLANK
TJC-8	1	INTENTIONALLY LEFT BLANK
TJC-9	1	ACCUMULATED DEFERRED INCOME TAX ("ADIT")
TJC-10	1	ALLOWANCE FOR WORKING CAPITAL
TJC-11	1	OPERATING INCOME SUMMARY
TJC-12	1 - 2	OPERATING INCOME ADJUSTMENTS
TJC-13	1	DEPRECIATION EXPENSE
TJC-14	1	PROPERTY TAX EXPENSE
TJC-15	1	INCENTIVE PAY ADJUSTMENT
TJC-16	1	REMOVE THE 2nd PAYROLL INCREASE ADJUSTMENT
TJC-17	1	DECLINING USAGE ADJUSTMENT
TJC-18	1	INTENTIONALLY LEFT BLANK
TJC-19	1	POSTAGE DECREASE ADJUSTMENT
TJC-20	1	INTENTIONALLY LEFT BLANK
TJC-21	1	ALGONQUIN POWER & UTILITIES CORP ("APUC") NON-LABOR ADJUSTMENT
TJC-22	1	CONTRACTUAL SERVICES - PROFESSIONAL LABOR ALLOCATION ADJUSTMENT
TJC-23	1	INTENTIONALLY LEFT BLANK
TJC-24	1	INTENTIONALLY LEFT BLANK
TJC-25	1	LIBERTY UTILITIES ("LU") 8020 LABOR COST ALLOCATION ADJUSTMENT
TJC-26	1	INTENTIONALLY LEFT BLANK
TJC-27	1	INTENTIONALLY LEFT BLANK
TJC-28	1	RATE CASE EXPENSE - NOT USED
TJC-29	1	INCOME TAXES
TJC-30	1	GROSS REVENUE CONVERSION FACTOR ("GRCF")
TJC-31	1	COST OF CAPITAL

RUCO RECOMMENDED REVENUE REQUIREMENT

Line No.	Description	[A] Company OCRB/FVRB Cost	[B] RUCO OCRB/FVRB Cost
1	Fair Value Rate Base	$ 13,205,189	$ 11,320,677
2	Adjusted Test Year Operating Income (Loss)	$ 253,574	$ 515,828
3	Current Rate Of Return (L2 / L1)	1.92%	4.56%
4	Required Operating Income (L5 X L1)	$ 1,209,727	$ 827,301
5	Required Rate Of Return On Fair Value Rate Base	9.16%	7.31%
6	Operating Income Deficiency (L4 - L2)	$ 956,154	$ 311,473
7	Gross Revenue Conversion Factor (TJC-1, Pg 2)	1.6256	1.6111
8	Increase In Gross Revenue Requirement (L7 X L6)	$ 1,554,297	$ 501,806
9	Adjusted Test Year Revenues	$ 4,624,730	$ 4,717,227
10	Proposed Annual Revenue (L8 + L9)	$ 6,179,027	$ 5,219,033
11	Required Percentage Increase In Revenue (L8 / L9)	33.61%	10.64%
12	Rate Of Return On Common Equity	11.60%	9.17%

References:
Column [A]: Company Schedules A-1, B-1, C-1, and D-1;
Column [B]: RUCO Schedule TJC-2, TJC-11, TJC-30, and TJC-31.

RUCO GROSS REVENUE CONVERSION FACTOR ("GRCF")

LINE NO.	DESCRIPTION	[A]	[B]	[C]
	Calculation of Gross Revenue Conversion Factor:			
1	Revenue	100.0000%		
2	Uncollecible Factor	0.0000%		
3	Revenues (L1 - L2)	100.0000%		
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	37.9295%		
5	Subtotal (L3 - L4)	62.0705%		
6	**Revenue Conversion Factor (L1 / L5)**	1.611071		
	Calculation of Uncollecttible Factor:			
7	Unity	100.0000%		
8	Combined Federal and State Tax Rate (Line 17)	37.2340%		
9	One Minus Combined Income Tax Rate (L7 - L8)	62.7660%		
10	Uncollectible Rate	0.0000%		
11	Uncollectible Factor (L9 * L10)		0.0000%	
	Calculation of Effective Tax Rate:			
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%		
13	Arizona State Income Tax Rate	4.9000%		
14	Federal Taxable Income (L12 - L13)	95.1000%		
15	Applicable Federal Income Tax Rate (Col. [C], L53)	34.0000%		
16	Effective Federal Income Tax Rate (L14 x L15)	32.3340%		
17	Combined Federal and State Income Tax Rate (L13 + L16)		37.2340%	
	Calculation of Effective Property Tax Factor			
18	Unity	100.0000%		
19	Combined Federal and State Income Tax Rate (Col. [B], L17)	37.2340%		
20	One Minus Combined Income Tax Rate (L18-L19)	62.7660%		
21	Property Tax Factor (Sch. TJC-9, Col. [B], L24)	1.1081%		
22	Effective Property Tax Factor (L20 x L21)		0.6955%	
23	Combined Federal and State Income Tax and Property Tax Rate (Col. [B], L17 + L22)			37.9295%
24	Required Operating Income (Sch. TJC-1, Col. [B] Line 4)	$ 827,301		
25	Adjusted Test Year Operating Income (Loss) (Sch. TJC-1, Col. [B], L2)	515,828		
26	Required Increase in Operating Income (L24 - L25)		$ 311,473	
27	Income Taxes on Recommended Revenue (Col. [C], L52)	$ 431,030		
28	Income Taxes on Test Year Revenue (Col. [A], L52)	246,258		
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		184,772	
30	Recommended Revenue Requirement (Sch. TJC-1, Col. [B], Line 10)	$ 5,219,033		
31	Uncollectible Rate (L10)	0.0000%		
32	Uncollectible Expense on Recommended Revenue (L30 x L31)	$ -		
33	Adjusted Test Year Uncollectible Expense (Sch. TJC-6, Col. [C], L32)	$ -		
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32 - L33)		-	
35	Property Tax with Recommended Revenue (Sch. TJC-9, Col. [B], L19)	$ 157,632		
36	Property Tax on Test Year Revenue (Sch. TJC-9, Col. [B], L20)	152,072		
37	Increase in Property Tax Due to Increase in Revenue (L35 - 36)		5,560	
38	Total Required Increase in Revenue (Col. [B], L26 + L29 + L34 + L37)		$ 501,806	

	Calculation of Income Tax:	Test Year	Revenue Increase/(Decrease)	RUCO Recommended
39	Revenue (Sch. TJC-1, Col. [B], Line 9 & Sch. TJC-1, Col. [B], L10)	$ 4,717,227	$ 501,806	$ 5,219,033
40	Operating Expenses Excluding Income Taxes	3,955,141		3,960,701
41	Synchronized Interest (Col. [C], L57)	100,706		100,706
42	Arizona Taxable Income (L39 - L40 - L41)	$ 661,381		$ 1,157,626
43	Arizona State Income Tax Rate	4.9000%		4.9000%
44	Arizona Income Tax (L42 x L43)	$ 32,408		$ 56,724
45	Federal Taxable Income (L42 - L44)	$ 628,973		$ 1,100,902
46	Federal Tax on First Income Bracket ($1 - $50,000) @ 15%	$ 7,500		$ 7,500
47	Federal Tax on Second Income Bracket ($51,001 - $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%	$ 99,951		$ 260,407
51	Total Federal Income Tax	$ 213,851		$ 374,307
52	Combined Federal and State Income Tax (L44 + L51)	$ 246,258		$ 431,030

53 Applicable Federal Income Tax Rate [Col. [C], L46 - Col. [A], L46] / [Col. [C], L40 - Col. [A], L40] 34.0000%

	Synchronized Interest Calculation:	
54		
55	Rate Base	$ 11,320,677
56	x Weighted Average Cost of Debt	0.8896%
57	Synchronized Interest	$ 100,706

RUCO RATE BASE SUMMARY

Line No.	Description	[A] Company As Filed OCRB/FVRB	[B] RUCO Recommended Adjustments	[C] RUCO As Adjusted OCRB/FVRB
1	Gross Utility Plant In Service	$ 37,612,452	$ (868,497)	$ 36,743,955
2	Accumulated Depreciation	(14,375,372)	(2,308)	(14,377,680)
3	Net Utility Plant In Service (L1 + L2)	$ 23,237,079	$ (870,805)	$ 22,366,275
	Less:			
4	Advances In Aid Of Construction ("AIAC")	$ (9,114,847)	$ -	$ (9,114,847)
5	Contribution In Aid Of Construction ("CIAC")	(579,988)	-	(579,988)
6	Accumulated Amortization of CIAC	304,864	-	304,864
7	Net CIAC (L5 + L6)	$ (275,124)	$ -	$ (275,124)
8	Customer Meter Deposits	$ (408,155)	$ -	$ (408,155)
9	Customer Security Deposits	(15,077)	-	(15,077)
10	Gross Regulatory Liability	-	-	-
11	Accumulated Amortization	-	-	-
12	Net Regulatory Liability	$ -	$ -	$ -
13	Accumulated Deferred Income Taxes ("ADIT")	$ (381,189)	$ (958,822)	$ (1,340,011)
14	Regulatory Liability - Over-Depreciated UPIS	-	-	-
	Plus:			
15	Prepayments	1,855	-	1,855
16	Materials & Supplies	-	-	-
17	Cash Working Capital	160,647	(54,886)	105,761
18	TOTAL RATE BASE (Sum L's 3, 4, 7, 8, 9, 12 Thru 17)	$ 13,205,189	$ (1,884,512)	$ 11,320,677

References:
Column [A]: Company Schedule B-1
Column [B]: TJC-3, Columns [B] Thru [K]
Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENTS

Line No.	Description	[A] Company As Filed OCRB/FVRB	[B] Adjust No. 1 UPIS & A/D Adjustments	[C] Adjust No. 2 Intentionally Left Blank	[D] Adjust No. 3 Intentionally Left Blank	[E] Adjust No. 4 Intentionally Left Blank	[F] Adjust No. 5 Intentionally Left Blank	[G] Adjust No. 6 Intentionally Left Blank	[H] Adjust No. 7 Intentionally Left Blank	[I] Adjust No. 8 Intentionally Left Blank	[J] Adjust No. 9 ADIT Adjustment	[K] Adjust No. 10 Working Capital Adjustments	[L] Total RUCO Adjustments	[M] RUCO Recommended OCRB/FVRB
1	Gross Utility Plant In Service	$ 37,612,452	$ (868,497)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (868,497)	$ 36,743,955
2	Accumulated Depreciation	(14,375,372)	(2,308)	-	-	-	-	-	-	-	-	-	(2,308)	(14,377,680)
3	Net Utility Plant In Service (L1 + L2)	$ 23,237,079	$ (870,805)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (870,805)	$ 22,366,275
	Less:													
4	Advances In Aid Of Construction ("AIAC")	$ (9,114,847)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (9,114,847)
5	Contribution In Aid Of Construction ("CIAC")	(579,988)	-	-	-	-	-	-	-	-	-	-	-	(579,988)
6	Accumulated Amortization of CIAC	304,864	-	-	-	-	-	-	-	-	-	-	-	304,864
7	Net CIAC (L5 + L6)	$ (275,124)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (275,124)
8	Customer Meter Deposits	$ (408,155)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (408,155)
9	Customer Security Deposits	(15,077)	-	-	-	-	-	-	-	-	-	-	-	(15,077)
10	Gross Regulatory Liability	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Accumulated Amortization	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Net Regulatory Liability	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	Accumulated Deferred Income Taxes ("ADIT")	$ (381,189)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (958,822)	$ -	$ (958,822)	$ (1,340,011)
14	Regulatory Liability	-	-	-	-	-	-	-	-	-	-	-	-	-
	Plus:													
15	Prepayments	1,855	-	-	-	-	-	-	-	-	-	-	-	1,855
16	Materials & Supplies	-	-	-	-	-	-	-	-	-	-	-	-	-
17	Cash Working Capital	160,647	-	-	-	-	-	-	-	-	-	(54,886)	(54,886)	105,761
18	TOTAL RATE BASE (Sum L's 3, 4, 7, 8, 9, 12 Thru 17)	$ 13,205,189	$ (870,805)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (958,822)	$ (54,886)	$ (1,884,512)	$ 11,320,677

RUCO Adjustments:

Adjustment No. 1: Summation of RUCO recommended Utility Plant in Service and Accumulated Depreciation Adjustments No. (a), (b), (c), and (d) - See RUCO Rate Base Adjustment No. 1 on Schedules TJC-4 on pages 1 & 2, Column [J] at line 42;
Adjustment No. 2: Intentionally Left Blank;
Adjustment No. 3: Intentionally Left Blank;
Adjustment No. 4: Intentionally Left Blank;
Adjustment No. 5: Intentionally Left Blank;
Adjustment No. 6: Intentionally Left Blank;
Adjustment No. 7: Intentionally Left Blank;
Adjustment No. 8: Intentionally Left Blank;
Adjustment No. 9: RUCO Recommended 2014 TY End Accumulated Deferred Income Tax ("ADIT") Balance After RUCO Recommended Rate Base Adjustments - See RUCO Schedule TJC-9 ADIT on page 1 of 2 at line 14;
Adjustment No. 10: RUCO Recommended Allowance for Working Capital - See RUCO Schedule TJC-10 on page 1 of 1 at line 27;

References:

Column [A]: Company Schedule B-1
Column [B] Thru Column [K]: RUCO Recommended Rate Base Adjustments
Column [L]: Sum of RUCO Recommended Rate Base Adjustments of Columns [B] through [K]
Column [M]: Column [A] + Column [L]

SUMMARY OF UTILITY PLANT IN SERVICE (UPIS) ADJUSTMENTS
UTILITY PLANT IN SERVICE (UPIS) RATE BASE ADJUSTMENT #1

Line No.	NARUC Account No.	Description	Vintage Year	[A] Company Adjusted Plant in Service As Filed	[B] RUCO Adjustment (a) UPIS & A/D Reconstruction	[C] RUCO Adjustment (b) True-Up PTY Plant Per RUCO DR 2.10	[D] RUCO Adjustment (c) PTY Plant Adjustment	[E] RUCO Adjustment (d) Corporate Plant Adjustment	[F] RUCO Adjustment (e) Intentionally Left Blank	[G] RUCO Adjustment (f) Intentionally Left Blank	[H] RUCO Adjustment (g) Intentionally Left Blank	[I] RUCO Adjustment (h) Intentionally Left Blank	[J] RUCO Total UPIS Adjustments	[K] RUCO Recommended Plant in Service
		Direct Plant:												
1	301	Organization Cost		$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	302	Franchise Cost		98,989	-		-	-	-	-	-	-	-	98,989
3	303	Land & Land Rights		688,011	-		-	-	-	-	-	-	-	688,011
4	304	Structures & Improvements		4,235,497	-		(28,251)	-	-	-	-	-	(39,394)	4,196,103
5	305	Collecting & Impounding Reservoirs		105,644	-		-	-	-	-	-	-	-	105,644
6	306	Lake, River, and Canal Intakes		-	-		-	-	-	-	-	-	-	-
7	307	Wells & Springs		1,692,408	-		(291)	-	-	-	-	-	(3,449)	1,688,959
8	308	Infiltration Galleries		-	-		-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains		432,050	-		-	-	-	-	-	-	-	432,050
10	310	Power Generation Equipment		195,696	-		-	-	-	-	-	-	(561)	195,135
11	311	Pumping Equipment		3,195,256	-		(45,250)	-	-	-	-	-	(28,417)	3,166,839
12	320	Water Treatment Equipment		117,674	-		(6,540)	-	-	-	-	-	(5,876)	111,798
13	320.1	Water Treatment Plants		-	-		-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders		-	-		-	-	-	-	-	-	-	-
15	330	Distribution Reservoirs & Standpipes		3,195,343	-		-	-	-	-	-	-	-	3,195,343
16	330.1	Storage Tanks		-	-		-	-	-	-	-	-	-	-
17	330.2	Pressure Tanks		-	-		-	-	-	-	-	-	-	-
18	331	Transmission & Distribution Mains		14,654,450	-		(23,663)	-	-	-	-	-	(9,942)	14,644,508
19	333	Services		2,173,490	-		(94,954)	-	-	-	-	-	(51,303)	2,122,187
20	334	Meters		1,959,945	-		(56,263)	-	-	-	-	-	(19,002)	1,940,943
21	335	Hydrants		1,151,007	-		(3,139)	-	-	-	-	-	(1,811)	1,149,196
22	336	Backflow Prevention Devices		-	-		-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment		189,235	-		-	-	-	-	-	-	-	189,235
24	340	Office Furniture & Equipment		281,034	-		(584)	-	-	-	-	-	(2,721)	278,314
25	340.1	Computers & Software		166,002	-		(341)	-	-	-	-	-	(341)	165,660
26	341	Transportation Equipment		519,513	-		-	-	-	-	-	-	-	519,513
27	342	Stores Equipment		-	-		-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment		314,385	-		(17,698)	-	-	-	-	-	(13,362)	301,022
29	344	Laboratory Equipment		3,285	-		-	-	-	-	-	-	-	3,285
30	345	Power Operated Equipment		101,250	-		-	-	-	-	-	-	37	101,287
31	346	Communication Equipment		892,339	-		(10,379)	-	-	-	-	-	(10,123)	882,216
32	347	Miscellaneous Equipment		662,722	-		(450,582)	-	-	-	-	-	(442,442)	220,280
33	348	Other Tangible Plant		155,378	-		-	-	-	-	-	-	-	155,378
34		Rounding		-	-		-	-	-	-	-	-	-	-
35		**Total Direct Plant**		$ 37,180,603	$ -		$ (737,935)	$ -	$ -	$ -	$ -	$ -	$ (628,705)	$ 36,551,897
		Allocated Corporate Plant:												
36	903	Land & Land Rights		$ 20,738	$ -	$ -	$ -	$ (20,738)	$ -	$ -	$ -	$ -	$ (20,738)	$ -
37	904	Structures and Improvements		225,059	-	-	-	(186,562)	-	-	-	-	(186,562)	38,497
38	940	Office Furniture and Fixtures		24,473	-	-	-	-	-	-	-	-	-	24,473
39	940.1	Computers and Software		161,580	-	-	-	(32,493)	-	-	-	-	(32,493)	129,087
40		**Total Allocated Corporate Plant**		$ 431,849	$ -	$ -	$ -	$ (239,792)	$ -	$ -	$ -	$ -	$ (239,792)	$ 192,057
41		**Plant Not Accounted For**		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
42		**Total Utility Plant in Service (UPIS)**		$ 37,612,452	$ -		$ (737,935)	$ (239,792)	$ -	$ -	$ -	$ -	$ (868,497)	$ 36,743,955

RUCO Adjustments:

Adjustment No. (a): Reconstruct Utility Plant in Service ("UPIS") & Accum. Depreciation ("A/D") Balances as Filed by Company - See RUCO UPIS and A/D Adjustment No. (a) on Schedule TJC-4(a) 2009 thru 2014 TY Plant Schedules on page 7 at line 37;
Adjustment No. (b): True-Up PTY Plant per Company Response to RUCO DR 2.10 - See RUCO Schedule TJC-4(b) on pages 1 and 2, Column [B], at line 35;
Adjustment No. (c): Remove PTY Plant outside of 6-Months TY End for both UPIS & A/D - See Schedule TJC-4(c);
Adjustment No. (d): Remove Allocated APUC Corporate Plant - See RUCO Schedule TJC-4(d) on pages 1 and 2 at line 12;
Adjustment No. (e): Intentionally Left Blank;
Adjustment No. (f): Intentionally Left Blank;
Adjustment No. (g): Intentionally Left Blank;
Adjustment No. (h): Intentionally Left Blank;

References:

Column [A]: Company Schedule B-2 Adjusted Test Year as Filed
Column [B] Through [I]: RUCO Recommended UPIS Adjustments
Column [J]: Sum of Columns [B] Through [I] - RUCO Sum of Total Recommended UPIS Adjustments
Column [K]: Column [A] + [J]

SUMMARY OF ACCUMULATED DEPRECIATION (A/D) ADJUSTMENTS
UPIS ACCUMULATED DEPRECIATION RATE BASE ADJUSTMENT #1

Line No.	NARUC Account No.	Description	Vintage Year	[A] Company Adjusted Accum. Depre. As Filed	[B] RUCO Adjustment (a) UPIS & A/D Reconstruction	[C] RUCO Adjustment (b) True-Up PTY Plant Per RUCO DR 2.10	[D] RUCO Adjustment (c) PTY Plant Adjustment	[E] RUCO Adjustment (d) Corporate Plant Adjustment	[F] RUCO Adjustment (e) Intentionally Left Blank	[G] RUCO Adjustment (f) Intentionally Left Blank	[H] RUCO Adjustment (g) Intentionally Left Blank	[I] RUCO Adjustment (h) Intentionally Left Blank	[J] RUCO Total Accum. Depre. Adjustments	[K] RUCO Recommended Accum. Depre.
		Direct Plant:												
1	301	Organization Cost		$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	302	Franchise Cost		-	-		-	-	-	-	-	-	-	-
3	303	Land & Land Rights		-	-		-	-	-	-	-	-	-	-
4	304	Structures & Improvements		870,543	-		(470)	-	-	-	-	-	(656)	869,887
5	305	Collecting & Impounding Reservoirs		8,788	735		-	-	-	-	-	-	735	9,523
6	306	Lake, River, and Canal Intakes		-	-		-	-	-	-	-	-	-	-
7	307	Wells & Springs		797,497	57		(5)	-	-	-	-	-	0	797,497
8	308	Infiltration Galleries		-	-		-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains		4,838	-		-	-	-	-	-	-	-	4,838
10	310	Power Generation Equipment		447	4,860		-	-	-	-	-	-	4,846	5,293
11	311	Pumping Equipment		2,288,780	1,776		(2,828)	-	-	-	-	-	(0)	2,288,780
12	320	Water Treatment Equipment		23,722	98		(109)	-	-	-	-	-	(0)	23,722
13	320.1	Water Treatment Plants		-	-		-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders		-	-		-	-	-	-	-	-	-	-
15	330	Distribution Reservoirs & Standpipes		1,130,151	-		-	-	-	-	-	-	-	1,130,151
16	330.1	Storage Tanks		-	-		-	-	-	-	-	-	-	-
17	330.2	Pressure Tanks		-	-		-	-	-	-	-	-	-	-
18	331	Transmission & Distribution Mains		4,991,849	99		(237)	-	-	-	-	-	0	4,991,849
19	333	Services		1,064,571	854		(1,581)	-	-	-	-	-	(0)	1,064,571
20	334	Meters		1,256,602	791		(2,343)	-	-	-	-	-	(0)	1,256,602
21	335	Hydrants		395,469	18		(31)	-	-	-	-	-	0	395,469
22	336	Backflow Prevention Devices		-	-		-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment		58,367	-		-	-	-	-	-	-	-	58,367
24	340	Office Furniture & Equipment		163,523	91		(19)	-	-	-	-	-	(0)	163,523
25	340.1	Computers & Software		160,219	74		(34)	-	-	-	-	-	40	160,259
26	341	Transportation Equipment		234,219	-		-	-	-	-	-	-	-	234,219
27	342	Stores Equipment		-	-		-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment		127,068	334		(442)	-	-	-	-	-	0	127,068
29	344	Laboratory Equipment		164	-		-	-	-	-	-	-	-	164
30	345	Power Operated Equipment		15,936	759		-	-	-	-	-	-	760	16,695
31	346	Communication Equipment		359,650	506		(519)	-	-	-	-	-	0	359,650
32	347	Miscellaneous Equipment		109,329	22,122		(22,529)	-	-	-	-	-	0	109,329
33	348	Other Tangible Plant		116,534	-		-	-	-	-	-	-	-	116,534
34		Rounding		-	-		-	-	-	-	-	-	-	-
35		**Total Direct Plant**		$ 14,178,264	$ 33,176		$ (31,149)	$ -	$ -	$ -	$ -	$ -	$ 5,725	$ 14,183,989
		Allocated Corporate Plant:												
36	903	Land & Land Rights		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
37	904	Structures and Improvements		11,904	-	-	-	(4,784)	-	-	-	-	(4,784)	7,120
38	940	Office Furniture and Fixtures		2,045	-	-	-	-	-	-	-	-	-	2,045
39	940.1	Computers and Software		58,133	-	-	-	(3,249)	-	-	-	-	(3,249)	54,883
40		**Total Allocated Corporate Plant**		$ 72,081	$ -	$ -	$ -	$ (8,033)	$ -	$ -	$ -	$ -	$ (8,033)	$ 64,049
41		**Plant Not Accounted For**		$ 125,026	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 125,026
42		**Total Utility Plant in Service (UPIS)**		$ 14,375,372	$ 33,176		$ (31,149)	$ (8,033)	$ -	$ -	$ -	$ -	$ (2,308)	$ 14,373,064

RUCO Adjustments:

Adjustment No. (a): Reconstruct Utility Plant in Service ("UPIS") & Accum. Depreciation ("A/D") Balances as Filed by Company - See RUCO UPIS and A/D Adjustment No. (a) on Schedule TJC-4(a) 2009 thru 2014 TY Plant Schedules on page 7 at line 37;
Adjustment No. (b): True-Up PTY Plant per Company Response to RUCO DR 2.10 - See RUCO Schedule TJC-4(b) on pages 1 and 2, Column [B], at line 35;
Adjustment No. (c): Remove PTY Plant outside of 6-Months TY End for both UPIS & A/D - See Schedule TJC-4(c);
Adjustment No. (d): Remove Allocated APUC Corporate Plant - See RUCO Schedule TJC-4(d) on pages 1 and 2 at line 12;
Adjustment No. (e): Intentionally Left Blank;
Adjustment No. (f): Intentionally Left Blank;
Adjustment No. (g): Intentionally Left Blank;
Adjustment No. (h): Intentionally Left Blank;

References:

Column [A]: Company Schedule B-2 Adjusted Test Year as Filed
Column [B] Through [I]: RUCO Recommended UPIS Adjustments
Column [J]: Sum of Columns [B] Through [I] - RUCO Sum of Total Recommended UPIS Adjustments
Column [K]: Column [A] + [J]

UTILITY PLANT IN SERVICE & ACCUM. DEPRE.
DIRECT PLANT RECONSTRUCTION SCHEDULE
UTILITY PLANT IN SERVICE (UPIS) AND ACCUMULATED DEPRECIATION (AD) ADJUSTMENT NO. (a)

					Per Decision 72251			2009 (9 Months - April 1 through December 31, 2009)									
Line No.	NARUC Account No.	Description	Vintage Year	Allowed Deprec. Rate	Company Plant at 3/31/2009	Accum. Deprec. At 3/31/2009	Company Net Plant at 3/31/2009	Plant Additions (Per Books)	Plant Adjustments	Affiliate Profit Plant Adjustments	Adjusted Plant Additions	Plant Retirements	Salvage A/D Only	9-Months Depreciation (Calculated)	Plant Balance	Accum. Deprec.	Net Plant
	Direct Plant:																
1	301	Organization Cost		0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	302	Franchise Cost		0.00%	961	-	961	-	(6,362)	-	(6,362)	-	-	-	(5,401)	-	(5,401)
3	303	Land & Land Rights		0.00%	688,011	-	688,011	-	-	-	-	-	-	-	688,011	-	688,011
4	304	Structures & Improvements		3.33%	1,914,771	397,034	1,517,738	116,776	(99,772)	(1,238)	15,767	-	-	48,018	1,930,538	445,052	1,485,486
5	305	Collecting & Impounding Reservoirs		2.50%	46,813	2,059	44,754	-	-	-	-	-	-	878	46,813	2,936	43,877
6	306	Lake, River, and Canal Intakes		2.50%	-	-	-	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs		3.33%	1,298,272	527,041	771,232	36,778	-	(12,702)	24,076	-	-	32,725	1,322,348	559,766	762,583
8	308	Infiltration Galleries		6.67%	-	-	-	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains		2.00%	3,256	85	3,170	924	-	-	924	-	-	56	4,180	141	4,039
10	310	Power Generation Equipment		5.00%	1,293	75	1,218	-	-	-	-	-	-	48	1,293	124	1,170
11	311	Pumping Equipment		12.50%	2,246,171	1,934,910	311,261	3,849	-	-	3,849	-	-	210,759	2,250,020	2,145,669	104,351
12	320	Water Treatment Equipment		3.33%	83,385	12,825	70,560	-	-	-	-	-	-	2,083	83,385	14,907	68,477
13	320.1	Water Treatment Plants		3.33%	-	-	-	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders		20.00%	-	-	-	-	-	-	-	-	-	-	-	-	-
15	330	Distribution Reservoirs & Standpipes		2.22%	2,637,716	775,303	1,862,414	24,049	(2,900)	(1,208)	19,941	-	-	44,084	2,657,658	819,387	1,838,271
16	330.1	Storage Tanks		2.22%	-	-	-	-	-	-	-	-	-	-	-	-	-
17	330.2	Pressure Tanks		5.00%	-	-	-	-	-	-	-	-	-	-	-	-	-
18	331	Transmission & Distribution Mains		2.00%	12,226,889	3,489,236	8,737,653	210,421	(111,626)	(44,296)	54,499	-	-	183,812	12,281,388	3,673,048	8,608,340
19	333	Services		3.33%	1,458,715	817,929	640,786	31,515	(167)	(82)	31,266	-	-	36,822	1,489,981	854,751	635,230
20	334	Meters		8.33%	1,378,333	1,346,699	31,634	32,939	(3,470)	-	29,469	-	-	32,554	1,407,802	1,379,254	28,548
21	335	Hydrants		2.00%	961,896	276,163	685,733	31,400	-	-	31,400	-	-	14,664	993,296	290,827	702,469
22	336	Backflow Prevention Devices		6.67%	-	-	-	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment		6.67%	114,539	8,753	105,786	1,268	-	-	1,268	-	-	5,762	115,807	14,515	101,293
24	340	Office Furniture & Equipment		6.67%	177,672	138,232	39,439	-	-	-	-	-	-	8,888	177,672	147,120	30,551
25	340.1	Computers & Software		20.00%	160,920	117,738	43,182	-	-	-	-	-	-	24,138	160,920	141,876	19,044
26	341	Transportation Equipment		20.00%	268,464	248,950	19,514	30,435	(13,609)	-	16,826	-	-	20,776	285,290	269,726	15,564
27	342	Stores Equipment		4.00%	-	-	-	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment		5.00%	122,712	122,448	264	-	-	-	-	-	-	264	122,712	122,712	-
29	344	Laboratory Equipment		10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment		5.00%	31,548	5,882	25,666	-	-	-	-	-	-	1,183	31,548	7,065	24,483
31	346	Communication Equipment		10.00%	420,744	93,204	327,540	64,135	(57,385)	(348)	6,402	-	-	31,796	427,146	125,000	302,146
32	347	Miscellaneous Equipment		10.00%	107,306	100,742	6,564	-	-	-	-	-	-	6,564	107,306	107,306	-
33	348	Other Tangible Plant		10.00%	155,378	27,191	128,187	-	-	-	-	-	-	11,653	155,378	38,845	116,534
34		Rounding			-	-	-	-	-	-	-	-	-	-	-	-	-
35		**RUCO Total Direct UPIS & Accum. Depre.**			$ 26,505,766	$ 10,442,498	$ 16,063,268	$ 584,490	$ (295,291)	$ (59,873)	$ 229,325	$ -	$ -	$ 717,527	$ 26,735,092	$ 11,160,025	$ 15,575,067
36		Company As Filed			$ 26,505,766	$ 10,442,498	$ 16,063,268	$ 584,490	$ (295,291)	$ (59,873)	$ 229,325	$ -	$ -	$ 703,033	$ 26,735,092	$ 11,145,531	$ 15,589,561
37		RUCO UPIS & Accum. Depre. Adjustments			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 14,494	$ -	$ 14,494	$ (14,494)

UTILITY PLANT IN SERVICE & ACCUM. DEPRE.
DIRECT PLANT RECONSTRUCTION SCHEDULE
UTILITY PLANT IN SERVICE (UPIS) AND ACCUMULATED DEPRECIATION (AD) ADJUSTMENT NO. (a)

					2010									
Line No.	NARUC Account No.	Description	Vintage Year	Allowed Deprec. Rate	Plant Additions (Per Books)	Plant Adjustments	Affiliate Profit Plant Adjustments	Adjusted Plant Additions	Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.	Net Plant
	Direct Plant:													
1	301	Organization Cost		0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	302	Franchise Cost		0.00%	96,443	-	-	96,443	-	-	-	91,042	-	91,042
3	303	Land & Land Rights		0.00%	-	-	-	-	-	-	-	688,011	-	688,011
4	304	Structures & Improvements		3.33%	928,254	-	-	928,254	-	-	79,742	2,858,793	524,794	2,333,998
5	305	Collecting & Impounding Reservoirs		2.50%	-	-	-	-	-	-	1,170	46,813	4,107	42,706
6	306	Lake, River, and Canal Intakes		2.50%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs		3.33%	48,697	-	-	48,697	-	-	44,845	1,371,045	604,611	766,434
8	308	Infiltration Galleries		6.67%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains		2.00%	-	-	-	-	-	-	84	4,180	225	3,955
10	310	Power Generation Equipment		5.00%	-	-	-	-	-	-	65	1,293	188	1,105
11	311	Pumping Equipment		12.50%	69,641	-	-	69,641	-	-	105,516	2,319,661	2,251,185	68,476
12	320	Water Treatment Equipment		3.33%	-	-	-	-	-	-	2,777	83,385	17,684	65,701
13	320.1	Water Treatment Plants		3.33%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders		20.00%	-	-	-	-	-	-	-	-	-	-
15	330	Distribution Reservoirs & Standpipes		2.22%	108,787	-	-	108,787	-	-	60,208	2,766,444	879,594	1,886,850
16	330.1	Storage Tanks		2.22%	-	-	-	-	-	-	-	-	-	-
17	330.2	Pressure Tanks		5.00%	-	-	-	-	-	-	-	-	-	-
18	331	Transmission & Distribution Mains		2.00%	413,723	-	(2,767)	410,957	-	-	249,737	12,692,345	3,922,785	8,769,560
19	333	Services		3.33%	47,808	-	-	47,808	-	-	50,412	1,537,788	905,163	632,625
20	334	Meters		8.33%	46,614	-	-	46,614	-	-	4,396	1,454,416	1,383,650	70,766
21	335	Hydrants		2.00%	20,220	-	-	20,220	-	-	20,068	1,013,516	310,895	702,621
22	336	Backflow Prevention Devices		6.67%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment		6.67%	5,694	-	-	5,694	-	-	7,914	121,502	22,429	99,073
24	340	Office Furniture & Equipment		6.67%	5,111	-	-	5,111	-	-	12,021	182,783	159,142	23,642
25	340.1	Computers & Software		20.00%	-	-	-	-	-	-	19,044	160,920	160,920	-
26	341	Transportation Equipment		20.00%	-	-	-	-	-	-	3,365	285,290	273,091	12,199
27	342	Stores Equipment		4.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment		5.00%	13,683	-	-	13,683	-	-	342	136,395	123,054	13,340
29	344	Laboratory Equipment		10.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment		5.00%	-	-	-	-	-	-	1,577	31,548	8,642	22,906
31	346	Communication Equipment		10.00%	-	-	-	-	-	-	42,715	427,146	167,714	259,432
32	347	Miscellaneous Equipment		10.00%	-	-	-	-	-	-	-	107,306	107,306	-
33	348	Other Tangible Plant		10.00%	-	-	-	-	-	-	15,538	155,378	54,382	100,996
34		Rounding			-	-	-	-	-	-	-	-	-	-
35		**RUCO Total Direct UPIS & Accum. Depre.**			$ 1,804,674	$ -	$ (2,767)	$ 1,801,908	$ -	$ -	$ 721,537	$ 28,536,999	$ 11,881,562	$ 16,655,438
36		Company As Filed			$ 1,804,674	$ -	$ (2,767)	$ 1,801,908	$ -	$ -	$ 736,031	$ 28,536,999	$ 11,881,562	$ 16,655,438
37		RUCO UPIS & Accum. Depre. Adjustments			$ -	$ -	$ -	$ -	$ -	$ -	$ (14,494)	$ -	$ -	$ -

UTILITY PLANT IN SERVICE & ACCUM. DEPRE.
DIRECT PLANT RECONSTRUCTION SCHEDULE
UTILITY PLANT IN SERVICE (UPIS) AND ACCUMULATED DEPRECIATION (AD) ADJUSTMENT NO. (a)

					2011									
Line No.	NARUC Account No.	Description	Vintage Year	Allowed Deprec. Rate	Plant Additions (Per Books)	Plant Adjustments	Affiliate Profit Plant Adjustments	Adjusted Plant Additions	Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.	Net Plant
	Direct Plant:													
1	301	Organization Cost		0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	302	Franchise Cost		0.00%	7,947	-	-	7,947	-	-	-	98,989	-	98,989
3	303	Land & Land Rights		0.00%	-	-	-	-	-	-	-	688,011	-	688,011
4	304	Structures & Improvements		3.33%	127,169	-	(27)	127,142	-	-	97,315	2,985,935	622,109	2,363,826
5	305	Collecting & Impounding Reservoirs		2.50%	-	-	-	-	-	-	1,170	46,813	5,277	41,536
6	306	Lake, River, and Canal Intakes		2.50%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs		3.33%	214,277	-	(2,350)	211,927	-	-	49,184	1,582,972	653,795	929,177
8	308	Infiltration Galleries		6.67%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains		2.00%	-	-	-	-	-	-	84	4,180	308	3,871
10	310	Power Generation Equipment		5.00%	-	-	-	-	-	-	65	1,293	253	1,040
11	311	Pumping Equipment		12.50%	132,018	-	(1,829)	130,189	-	-	17,323	2,449,850	2,268,508	181,342
12	320	Water Treatment Equipment		3.33%	-	-	-	-	-	-	2,777	83,385	20,460	62,924
13	320.1	Water Treatment Plants		3.33%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders		20.00%	-	-	-	-	-	-	-	-	-	-
15	330	Distribution Reservoirs & Standpipes		2.22%	2,051	-	-	2,051	-	-	61,438	2,768,495	941,032	1,827,463
16	330.1	Storage Tanks		2.22%	-	-	-	-	-	-	-	-	-	-
17	330.2	Pressure Tanks		5.00%	-	-	-	-	-	-	-	-	-	-
18	331	Transmission & Distribution Mains		2.00%	892,283	-	(5,313)	886,969	-	-	262,717	13,579,314	4,185,502	9,393,812
19	333	Services		3.33%	125,038	-	(1,592)	123,446	-	-	53,264	1,661,235	958,427	702,808
20	334	Meters		8.33%	25,286	-	(376)	24,910	-	-	7,375	1,479,326	1,391,025	88,301
21	335	Hydrants		2.00%	39,110	-	(333)	38,777	-	-	20,658	1,052,293	331,553	720,740
22	336	Backflow Prevention Devices		6.67%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment		6.67%	5,815	-	-	5,815	-	-	8,298	127,317	30,727	96,590
24	340	Office Furniture & Equipment		6.67%	504	-	-	504	-	-	12,208	183,287	171,350	11,937
25	340.1	Computers & Software		20.00%	-	-	-	-	-	-	-	160,920	160,920	-
26	341	Transportation Equipment		20.00%	15,986	-	(194)	15,792	-	-	4,944	301,082	278,036	23,047
27	342	Stores Equipment		4.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment		5.00%	34,834	-	(752)	34,083	-	-	1,536	170,478	124,591	45,887
29	344	Laboratory Equipment		10.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment		5.00%	-	-	-	-	-	-	1,577	31,548	10,220	21,328
31	346	Communication Equipment		10.00%	-	-	-	-	-	-	42,715	427,146	210,429	216,717
32	347	Miscellaneous Equipment		10.00%	-	-	-	-	-	-	-	107,306	107,306	-
33	348	Other Tangible Plant		10.00%	-	-	-	-	-	-	15,538	155,378	69,920	85,458
34		Rounding			-	-	-	-	-	-	-	-	-	-
35		**RUCO Total Direct UPIS & Accum. Depre.**			$ 1,622,318	$ -	$ (12,765)	$ 1,609,553	$ -	$ -	$ 660,186	$ 30,146,552	$ 12,541,748	$ 17,604,804
36		Company As Filed			$ 1,622,318	$ -	$ (12,765)	$ 1,609,553	$ -	$ -	$ 660,186	$ 30,146,552	$ 12,541,748	$ 17,604,804
37		RUCO UPIS & Accum. Depre. Adjustments			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

UTILITY PLANT IN SERVICE & ACCUM. DEPRE.
DIRECT PLANT RECONSTRUCTION SCHEDULE
UTILITY PLANT IN SERVICE (UPIS) AND ACCUMULATED DEPRECIATION (AD) ADJUSTMENT NO. (a)

					2012									
Line No.	NARUC Account No.	Description	Vintage Year	Allowed Deprec. Rate	Plant Additions (Per Books)	Plant Adjustments	Affiliate Profit Plant Adjustments	Adjusted Plant Additions	Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.	Net Plant
	Direct Plant:													
1	301	Organization Cost		0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	302	Franchise Cost		0.00%	-	-	-	-	-	-	-	98,989	-	98,989
3	303	Land & Land Rights		0.00%	-	-	-	-	-	-	-	688,011	-	688,011
4	304	Structures & Improvements		3.33%	96,738	-	(1,429)	95,309	(3)	-	101,018	3,081,242	723,125	2,358,117
5	305	Collecting & Impounding Reservoirs		2.50%	-	-	-	-	-	-	1,170	46,813	6,447	40,366
6	306	Lake, River, and Canal Intakes		2.50%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs		3.33%	33,438	-	(600)	32,839	-	-	53,260	1,615,811	707,055	908,756
8	308	Infiltration Galleries		6.67%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains		2.00%	-	-	-	-	-	-	84	4,180	392	3,788
10	310	Power Generation Equipment		5.00%	-	-	-	-	-	-	65	1,293	318	976
11	311	Pumping Equipment		12.50%	168,448	-	(1,120)	167,328	-	-	35,918	2,617,179	2,304,426	312,752
12	320	Water Treatment Equipment		3.33%	14,685	-	(333)	14,351	-	-	3,016	97,736	23,476	74,260
13	320.1	Water Treatment Plants		3.33%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders		20.00%	-	-	-	-	-	-	-	-	-	-
15	330	Distribution Reservoirs & Standpipes		2.22%	-	-	-	-	(0)	-	61,461	2,768,495	1,002,492	1,766,003
16	330.1	Storage Tanks		2.22%	-	-	-	-	-	-	-	-	-	-
17	330.2	Pressure Tanks		5.00%	-	-	-	-	-	-	-	-	-	-
18	331	Transmission & Distribution Mains		2.00%	559,443	-	(4,260)	555,183	(1)	-	277,138	14,134,496	4,462,639	9,671,857
19	333	Services		3.33%	231,032	-	(2,984)	228,047	-	-	59,116	1,889,282	1,017,543	871,739
20	334	Meters		8.33%	78,846	-	(1,400)	77,446	-	-	11,638	1,556,772	1,402,663	154,109
21	335	Hydrants		2.00%	48,199	-	(567)	47,632	-	-	21,522	1,099,925	353,075	746,850
22	336	Backflow Prevention Devices		6.67%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment		6.67%	-	-	-	-	-	-	8,492	127,317	39,219	88,098
24	340	Office Furniture & Equipment		6.67%	77,205	-	(2,136)	75,068	-	-	9,728	258,355	181,078	77,277
25	340.1	Computers & Software		20.00%	-	-	-	-	-	-	-	160,920	160,920	-
26	341	Transportation Equipment		20.00%	2,366	-	-	2,366	-	-	6,760	303,448	284,796	18,652
27	342	Stores Equipment		4.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment		5.00%	39,333	-	(836)	38,497	-	-	3,351	208,975	127,941	81,033
29	344	Laboratory Equipment		10.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment		5.00%	-	-	-	-	-	-	1,577	31,548	11,797	19,751
31	346	Communication Equipment		10.00%	-	-	-	-	-	-	42,715	427,146	253,143	174,002
32	347	Miscellaneous Equipment		10.00%	10,063	-	(247)	9,817	-	-	491	117,123	107,797	9,326
33	348	Other Tangible Plant		10.00%	-	-	-	-	-	-	15,538	155,378	85,458	69,920
34		Rounding			-	-	-	-	-	-	-	-	-	-
35		**RUCO Total Direct UPIS & Accum. Depre.**			$ 1,359,796	$ -	$ (15,912)	$ 1,343,884	$ (4)	$ -	$ 714,057	$ 31,490,432	$ 13,255,801	$ 18,234,631
36		Company As Filed			$ 1,359,796	$ -	$ (15,912)	$ 1,343,884	$ (4)	$ -	$ 714,057	$ 31,490,432	$ 13,255,801	$ 18,234,631
37		RUCO UPIS & Accum. Depre. Adjustments			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

UTILITY PLANT IN SERVICE & ACCUM. DEPRE.
DIRECT PLANT RECONSTRUCTION SCHEDULE
UTILITY PLANT IN SERVICE (UPIS) AND ACCUMULATED DEPRECIATION (AD) ADJUSTMENT NO. (a)

					2013									
Line No.	NARUC Account No.	Description	Vintage Year	Allowed Deprec. Rate	Plant Additions (Per Books)	Plant Adjustments	Affiliate Profit Plant Adjustments	Adjusted Plant Additions	Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.	Net Plant
	Direct Plant:													
1	301	Organization Cost		0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	302	Franchise Cost		0.00%	-	-	-	-	-	-	-	98,989	-	98,989
3	303	Land & Land Rights		0.00%	-	-	-	-	-	-	-	688,011	-	688,011
4	304	Structures & Improvements		3.33%	217,500	-	-	217,500	(72,674)	-	105,017	3,226,067	755,467	2,470,600
5	305	Collecting & Impounding Reservoirs		2.50%	-	-	-	-	-	-	1,170	46,813	7,618	39,195
6	306	Lake, River, and Canal Intakes		2.50%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs		3.33%	-	-	-	-	(17,716)	-	53,512	1,598,095	742,850	855,245
8	308	Infiltration Galleries		6.67%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains		2.00%	-	-	-	-	-	-	84	4,180	475	3,704
10	310	Power Generation Equipment		5.00%	-	-	-	-	-	-	65	1,293	382	911
11	311	Pumping Equipment		12.50%	100,208	-	-	100,208	(86,258)	-	52,639	2,631,129	2,270,807	360,322
12	320	Water Treatment Equipment		3.33%	16,671	-	-	16,671	(6,826)	-	3,419	107,581	20,069	87,512
13	320.1	Water Treatment Plants		3.33%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders		20.00%	-	-	-	-	-	-	-	-	-	-
15	330	Distribution Reservoirs & Standpipes		2.22%	-	-	-	-	-	-	61,461	2,768,495	1,063,953	1,704,542
16	330.1	Storage Tanks		2.22%	-	-	-	-	-	-	-	-	-	-
17	330.2	Pressure Tanks		5.00%	-	-	-	-	-	-	-	-	-	-
18	331	Transmission & Distribution Mains		2.00%	102,328	-	(1,071)	101,257	(16,707)	-	283,535	14,219,046	4,729,468	9,489,578
19	333	Services		3.33%	120,495	-	-	120,495	(49,263)	-	64,099	1,960,514	1,032,379	928,135
20	334	Meters		8.33%	165,722	-	-	165,722	(48,869)	-	21,766	1,673,625	1,375,561	298,065
21	335	Hydrants		2.00%	37,941	-	-	37,941	(2,737)	-	22,351	1,135,129	372,689	762,440
22	336	Backflow Prevention Devices		6.67%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment		6.67%	1,479	-	-	1,479	-	-	8,541	128,796	47,760	81,035
24	340	Office Furniture & Equipment		6.67%	51,904	-	-	51,904	(33,565)	-	7,113	276,695	154,626	122,069
25	340.1	Computers & Software		20.00%	-	-	-	-	-	-	-	160,920	160,920	-
26	341	Transportation Equipment		20.00%	-	-	-	-	-	-	6,997	303,448	291,793	11,655
27	342	Stores Equipment		4.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment		5.00%	62,242	-	-	62,242	(8,792)	-	5,869	262,424	125,018	137,406
29	344	Laboratory Equipment		10.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment		5.00%	-	-	-	-	-	-	1,577	31,548	13,375	18,174
31	346	Communication Equipment		10.00%	-	-	-	-	-	-	42,715	427,146	295,858	131,288
32	347	Miscellaneous Equipment		10.00%	45	-	-	45	(5,888)	-	984	111,280	102,893	8,386
33	348	Other Tangible Plant		10.00%	-	-	-	-	-	-	15,538	155,378	100,996	54,382
34		Rounding			-	-	-	-	-	-	-	-	-	-
35		**RUCO Total Direct UPIS & Accum. Depre.**			$ 876,535	$ -	$ (1,071)	$ 875,464	$ (349,295)	$ -	$ 758,450	$ 32,016,601	$ 13,664,956	$ 18,351,645
36		Company As Filed			$ 876,535	$ -	$ (1,071)	$ 875,464	$ (349,295)	$ -	$ 758,450	$ 32,016,601	$ 13,664,956	$ 18,351,645
37		RUCO UPIS & Accum. Depre. Adjustments			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

UTILITY PLANT IN SERVICE & ACCUM. DEPRE.
DIRECT PLANT RECONSTRUCTION SCHEDULE
UTILITY PLANT IN SERVICE (UPIS) AND ACCUMULATED DEPRECIATION (AD) ADJUSTMENT NO. (a)

					2014									
Line No.	NARUC Account No.	Description	Vintage Year	Allowed Deprec. Rate	Plant Additions (Per Books)	Plant Adjustments	Affiliate Profit Plant Adjustments	Adjusted Plant Additions	Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.	Net Plant
	Direct Plant:													
1	301	Organization Cost		0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	302	Franchise Cost		0.00%	-	-	-	-	-	-	-	98,989	-	98,989
3	303	Land & Land Rights		0.00%	-	-	-	-	-	-	-	688,011	-	688,011
4	304	Structures & Improvements		3.33%	1,018,589	-	-	1,018,589	(9,159)	-	124,235	4,235,497	870,543	3,364,954
5	305	Collecting & Impounding Reservoirs		2.50%	-	-	-	-	-	-	1,170	46,813	8,788	38,025
6	306	Lake, River, and Canal Intakes		2.50%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs		3.33%	90,947	-	-	90,947	(83)	-	54,729	1,688,959	797,497	891,462
8	308	Infiltration Galleries		6.67%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains		2.00%	427,870	-	-	427,870	-	-	4,362	432,050	4,838	427,212
10	310	Power Generation Equipment		5.00%	-	-	-	-	-	-	65	1,293	447	846
11	311	Pumping Equipment		12.50%	615,082	-	-	615,082	(79,372)	-	97,345	3,166,839	2,288,780	878,059
12	320	Water Treatment Equipment		3.33%	4,217	-	-	4,217	-	-	3,653	111,798	23,722	88,076
13	320.1	Water Treatment Plants		3.33%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders		20.00%	-	-	-	-	-	-	-	-	-	-
15	330	Distribution Reservoirs & Standpipes		2.22%	426,849	-	-	426,849	-	-	66,199	3,195,343	1,130,151	2,065,192
16	330.1	Storage Tanks		2.22%	-	-	-	-	-	-	-	-	-	-
17	330.2	Pressure Tanks		5.00%	-	-	-	-	-	-	-	-	-	-
18	331	Transmission & Distribution Mains		2.00%	451,838	-	(121)	451,717	(26,254)	-	288,636	14,644,508	4,991,849	9,652,659
19	333	Services		3.33%	197,457	-	-	197,457	(35,784)	-	67,977	2,122,187	1,064,571	1,057,615
20	334	Meters		8.33%	432,978	-	-	432,978	(165,661)	-	46,702	1,940,943	1,256,602	684,341
21	335	Hydrants		2.00%	14,131	-	-	14,131	(63)	-	22,843	1,149,196	395,469	753,728
22	336	Backflow Prevention Devices		6.67%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment		6.67%	60,440	-	-	60,440	-	-	10,606	189,235	58,367	130,869
24	340	Office Furniture & Equipment		6.67%	1,619	-	-	1,619	-	-	8,898	278,314	163,523	114,791
25	340.1	Computers & Software		20.00%	5,603	-	-	5,603	(1,262)	-	560	165,262	160,219	5,043
26	341	Transportation Equipment		20.00%	310,415	-	-	310,415	(94,350)	-	36,776	519,513	234,219	285,294
27	342	Stores Equipment		4.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment		5.00%	45,101	-	-	45,101	(6,503)	-	8,553	301,022	127,068	173,955
29	344	Laboratory Equipment		10.00%	3,285	-	-	3,285	-	-	164	3,285	164	3,121
30	345	Power Operated Equipment		5.00%	39,350	-	-	39,350	-	-	2,561	70,898	15,936	54,962
31	346	Communication Equipment		10.00%	456,746	-	-	456,746	(1,676)	-	65,468	882,216	359,650	522,566
32	347	Miscellaneous Equipment		10.00%	109,001	-	-	109,001	-	-	6,436	220,280	109,329	110,951
33	348	Other Tangible Plant		10.00%	-	-	-	-	-	-	15,538	155,378	116,534	38,845
34		Rounding			-	-	-	-	-	-	-	-	-	-
35		**RUCO Total Direct UPIS & Accum. Depre.**			$ 4,711,519	$ -	$ (121)	$ 4,711,398	$ (420,168)	$ -	$ 933,476	$ 36,307,831	$ 14,178,264	$ 22,129,566
36		Company As Filed			$ 4,711,519	$ -	$ (121)	$ 4,711,398	$ (420,168)	$ -	$ 933,476	$ 37,180,603	$ 14,178,264	$ 23,002,338
37		RUCO UPIS & Accum. Depre. Adjustments			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (872,772)	$ -	$ (872,772)

UTILITY PLANT IN SERVICE & ACCUM. DEPRE.
DIRECT PLANT RECONSTRUCTION SCHEDULE
UTILITY PLANT IN SERVICE (UPIS) AND ACCUMULATED DEPRECIATION (AD) ADJUSTMENT NO. (a)

					2015 Post Test Year Plant Additions with Half-Year Convention for Depreciation									
Line No.	NARUC Account No.	Description	Vintage Year	Allowed Deprec. Rate	PTY Plant Additions	PTY Plant Adjustments	PTY Affiliate Profit Plant Adjustments	PTY Adjusted Plant Additions	PTY Plant Retirements	PTY Salvage A/D Only	PTY Depreciation (Calculated)	Including PTY Plant Balance	Including PTY Accum. Deprec.	Including PTY Net Plant
	Direct Plant:													
1	301	Organization Cost		0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	302	Franchise Cost		0.00%	-	-	-	-	-	-	-	98,989	-	98,989
3	303	Land & Land Rights		0.00%	-	-	-	-	-	-	-	688,011	-	688,011
4	304	Structures & Improvements		3.33%	-	-	-	-	-	-	-	4,235,497	870,543	3,364,954
5	305	Collecting & Impounding Reservoirs		2.50%	58,831	-	-	58,831	-	-	735	105,644	9,523	96,121
6	306	Lake, River, and Canal Intakes		2.50%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs		3.33%	3,449	-	-	3,449	-	-	57	1,692,408	797,554	894,854
8	308	Infiltration Galleries		6.67%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains		2.00%	-	-	-	-	-	-	-	432,050	4,838	427,212
10	310	Power Generation Equipment		5.00%	194,402	-	-	194,402	-	-	4,860	195,696	5,307	190,389
11	311	Pumping Equipment		12.50%	28,417	-	-	28,417	-	-	1,776	3,195,256	2,290,556	904,700
12	320	Water Treatment Equipment		3.33%	5,876	-	-	5,876	-	-	98	117,674	23,819	93,855
13	320.1	Water Treatment Plants		3.33%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders		20.00%	-	-	-	-	-	-	-	-	-	-
15	330	Distribution Reservoirs & Standpipes		2.22%	-	-	-	-	-	-	-	3,195,343	1,130,151	2,065,192
16	330.1	Storage Tanks		2.22%	-	-	-	-	-	-	-	-	-	-
17	330.2	Pressure Tanks		5.00%	-	-	-	-	-	-	-	-	-	-
18	331	Transmission & Distribution Mains		2.00%	9,942	-	-	9,942	-	-	99	14,654,450	4,991,949	9,662,501
19	333	Services		3.33%	51,303	-	-	51,303	-	-	854	2,173,490	1,065,426	1,108,064
20	334	Meters		8.33%	19,002	-	-	19,002	-	-	791	1,959,945	1,257,394	702,551
21	335	Hydrants		2.00%	1,811	-	-	1,811	-	-	18	1,151,007	395,487	755,520
22	336	Backflow Prevention Devices		6.67%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment		6.67%	-	-	-	-	-	-	-	189,235	58,367	130,869
24	340	Office Furniture & Equipment		6.67%	2,721	-	-	2,721	-	-	91	281,034	163,614	117,420
25	340.1	Computers & Software		20.00%	740	-	-	740	-	-	74	166,002	160,293	5,709
26	341	Transportation Equipment		20.00%	-	-	-	-	-	-	-	519,513	234,219	285,294
27	342	Stores Equipment		4.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment		5.00%	13,362	-	-	13,362	-	-	334	314,385	127,402	186,983
29	344	Laboratory Equipment		10.00%	-	-	-	-	-	-	-	3,285	164	3,121
30	345	Power Operated Equipment		5.00%	30,352	-	-	30,352	-	-	759	101,250	16,694	84,555
31	346	Communication Equipment		10.00%	10,123	-	-	10,123	-	-	506	892,339	360,156	532,183
32	347	Miscellaneous Equipment		10.00%	442,442	-	-	442,442	-	-	22,122	662,722	131,451	531,270
33	348	Other Tangible Plant		10.00%	-	-	-	-	-	-	-	155,378	116,534	38,845
34		Rounding			-	-	-	-	-	-	-	-	-	-
35		**RUCO Total Direct UPIS & Accum. Depre.**			$ 872,772	$ -	$ -	$ 872,772	$ -	$ -	$ 33,176	$ 37,180,603	$ 14,211,440	$ 22,969,162
36		Company As Filed			$ 872,772	$ -	$ -	$ 872,772	$ -	$ -	$ -	$ 37,180,603	$ 14,178,264	$ 23,002,338
37		RUCO UPIS & Accum. Depre. Adjustments			$ -	$ -	$ -	$ -	$ -	$ -	$ 33,176	$ -	$ 33,176	$ (33,176)

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (a)
UTILITY PLANT IN SERVICE ("UPIS") RECONSTRUCTION ADJUSTMENT

Line No.	Acct. No.	Description	[A] Company UPIS As Filed	[B] RUCO UPIS Reconstruction Adjustments	[C] RUCO Recommended UPIS Balances
		Direct Plant:			
1	301	Organization Cost	$ -	$ -	$ -
2	302	Franchise Cost	98,989	-	98,989
3	303	Land and Land Rights	688,011	-	688,011
4	304	Structures and Improvements	4,235,497	-	4,235,497
5	305	Collecting and Impounding Res.	105,644	-	105,644
6	306	Lake River and Other Intakes	-	-	-
7	307	Wells and Springs	1,692,408	-	1,692,408
8	308	Infiltration Galleries and Tunnels	-	-	-
9	309	Supply Mains	432,050	-	432,050
10	310	Power Generation Equipment	195,696	-	195,696
11	311	Electric Pumping Equipment	3,195,256	-	3,195,256
12	320	Water Treatment Equipment	117,674	-	117,674
13	320.1	Water Treatment Plant	-	-	-
14	320.2	Chemical Solution Feeders	-	-	-
15	330	Dist. Reservoirs & Standpipe	3,195,343	-	3,195,343
16	330.1	Storage tanks	-	-	-
17	330.2	Pressure Tanks	-	-	-
18	331	Trans. and Dist. Mains	14,654,450	-	14,654,450
19	333	Services	2,173,490	-	2,173,490
20	334	Meters	1,959,945	-	1,959,945
21	335	Hydrants	1,151,007	-	1,151,007
22	336	Backflow Prevention Devices	-	-	-
23	339	Other Plant and Misc. Equip.	189,235	-	189,235
24	340	Office Furniture and Fixtures	281,034	-	281,034
25	340.1	Computers and Software	166,002	-	166,002
26	341	Transportation Equipment	519,513	-	519,513
27	342	Stores Equipment	-	-	-
28	343	Tools and Work Equipment	314,385	-	314,385
29	344	Laboratory Equipment	3,285	-	3,285
30	345	Power Operated Equipment	101,250	-	101,250
31	346	Communications Equipment	892,339	-	892,339
32	347	Miscellaneous Equipment	662,722	-	662,722
33	348	Other Tangible Plant	155,378	-	155,378
34		Totals	$ 37,180,603	$ -	$ 37,180,603
35		RUCO Adjustment		$ -	

References:
Per Company B-2 Plant Schedules
RUCO Plant Reconstruction Schedules TJC-4(a) on Pages 1-7

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (a)
UPIS ACCUMULATED DEPRECIATION RECONSTRUCTION ADJUSTMENT

Line No.	Acct. No.	Description	[A] Company Accum. Depre. As Filed	[B] RUCO Accum. Depre. Reconstruction Adjustments	[C] RUCO Recommended Accum. Depre. Balances
		Direct Plant:			
1	301	Organization Cost	$ -	$ -	$ -
2	302	Franchise Cost	-	-	-
3	303	Land and Land Rights	-	-	-
4	304	Structures and Improvements	870,543	-	870,543
5	305	Collecting and Impounding Res.	8,788	735	9,523
6	306	Lake River and Other Intakes	-	-	-
7	307	Wells and Springs	797,497	57	797,554
8	308	Infiltration Galleries and Tunnels	-	-	-
9	309	Supply Mains	4,838	-	4,838
10	310	Power Generation Equipment	447	4,860	5,307
11	311	Electric Pumping Equipment	2,288,780	1,776	2,290,556
12	320	Water Treatment Equipment	23,722	98	23,819
13	320.1	Water Treatment Plant	-	-	-
14	320.2	Chemical Solution Feeders	-	-	-
15	330	Dist. Reservoirs & Standpipe	1,130,151	-	1,130,151
16	330.1	Storage tanks	-	-	-
17	330.2	Pressure Tanks	-	-	-
18	331	Trans. and Dist. Mains	4,991,849	99	4,991,949
19	333	Services	1,064,571	854	1,065,426
20	334	Meters	1,256,602	791	1,257,394
21	335	Hydrants	395,469	18	395,487
22	336	Backflow Prevention Devices	-	-	-
23	339	Other Plant and Misc. Equip.	58,367	-	58,367
24	340	Office Furniture and Fixtures	163,523	91	163,614
25	340.1	Computers and Software	160,219	74	160,293
26	341	Transportation Equipment	234,219	-	234,219
27	342	Stores Equipment	-	-	-
28	343	Tools and Work Equipment	127,068	334	127,402
29	344	Laboratory Equipment	164	-	164
30	345	Power Operated Equipment	15,936	759	16,694
31	346	Communications Equipment	359,650	506	360,156
32	347	Miscellaneous Equipment	109,329	22,122	131,451
33	348	Other Tangible Plant	116,534	-	116,534
34		Totals	$ 14,178,264	$ 33,176	$ 14,211,440
35		RUCO Adjustment		$ 33,176	

References:
Per Company B-2 Plant Schedules
RUCO Plant Reconstruction Schedules TJC-4(a) on Pages 1-7

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (b)
TRUE-UP POST TEST YEAR PLANT PER RUCO DR 2.10

Line No.	Acct. No.	Description	[A] Company As Filed Amount	[B] Adjusted Per RUCO DR 2.10	[C] RUCO Adjusted Amount
1	301	Organization Cost	$ -	[redacted]	[redacted]
2	302	Franchise Cost	-		
3	303	Land and Land Rights	-		
4	304	Structures and Improvements	58,831		
5	305	Collecting and Impounding Res.	-		
6	306	Lake River and Other Intakes	-		
7	307	Wells and Springs	3,449		
8	308	Infiltration Galleries and Tunnels	-		
9	309	Supply Mains	-		
10	310	Power Generation Equipment	194,402		
11	311	Electric Pumping Equipment	28,417		
12	320	Water Treatment Equipment	5,876		
13	320.1	Water Treatment Plant	-		
14	320.2	Chemical Solution Feeders	-		
15	330	Dist. Reservoirs & Standpipe	-		
16	330.1	Storage tanks	-		
17	330.2	Pressure Tanks	-		
18	331	Trans. and Dist. Mains	9,942		
19	333	Services	51,303		
20	334	Meters	19,002		
21	335	Hydrants	1,811		
22	336	Backflow Prevention Devices	-		
23	339	Other Plant and Misc. Equip.	-		
24	340	Office Furniture and Fixtures	2,721		
25	340.1	Computers and Software	740		
26	341	Transportation Equipment	-		
27	342	Stores Equipment	-		
28	343	Tools and Work Equipment	13,362		
29	344	Laboratory Equipment	-		
30	345	Power Operated Equipment	30,352		
31	346	Communications Equipment	10,123		
32	347	Miscellaneous Equipment	442,442		
33	348	Other Tangible Plant	-		
34		TOTALS	$ 872,772	[redacted]	[redacted]
35		**RUCO Total Adjustment**		[redacted]	

References:
Per Company Response to RUCO DR #2.10 - See RUCO W/P

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (b)
TRUE-UP POST TEST YEAR PLANT ACCUM. DEPRECIATION PER RUCO DR 2.10

Line No.	Acct. No.	Description	[A] Depre. Rate	[B] RUCO Adjusted PTY Plant	[C] RUCO Adjusted Accum. Depre. Amount
1	301	Organization Cost	0.00%	[redacted]	[redacted]
2	302	Franchise Cost	0.00%		
3	303	Land and Land Rights	0.00%		
4	304	Structures and Improvements	3.33%		
5	305	Collecting and Impounding Res.	2.50%		
6	306	Lake River and Other Intakes	2.50%		
7	307	Wells and Springs	3.33%		
8	308	Infiltration Galleries and Tunnels	6.67%		
9	309	Supply Mains	2.00%		
10	310	Power Generation Equipment	5.00%		
11	311	Electric Pumping Equipment	12.50%		
12	320	Water Treatment Equipment	3.33%		
13	320.1	Water Treatment Plant	3.33%		
14	320.2	Chemical Solution Feeders	20.00%		
15	330	Dist. Reservoirs & Standpipe	2.22%		
16	330.1	Storage tanks	2.22%		
17	330.2	Pressure Tanks	5.00%		
18	331	Trans. and Dist. Mains	2.00%		
19	333	Services	3.33%		
20	334	Meters	8.33%		
21	335	Hydrants	2.00%		
22	336	Backflow Prevention Devices	6.67%		
23	339	Other Plant and Misc. Equip.	6.67%		
24	340	Office Furniture and Fixtures	6.67%		
25	340.1	Computers and Software	20.00%		
26	341	Transportation Equipment	20.00%		
27	342	Stores Equipment	4.00%		
28	343	Tools and Work Equipment	5.00%		
29	344	Laboratory Equipment	10.00%		
30	345	Power Operated Equipment	5.00%		
31	346	Communications Equipment	10.00%		
32	347	Miscellaneous Equipment	10.00%		
33	348	Other Tangible Plant	10.00%		
34		TOTALS		[redacted]	[redacted]
35		Company's Accumulated Depreciation on PTY Plant			-
36		**RUCO Total Adjustment**			[redacted]

References:
Per Company Response to RUCO DR #2.10 - See RUCO W/P

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (c)
POST TEST YEAR PLANT DISALLOWANCE EXCEEDING 6-MONTHS TEST YEAR END

Line No.	Acct. No.	Description	[A] RUCO PTY Plant True-Up to RUCO DR 2.10	[B] RUCO PTY Plant Adjustments	[C] RUCO Recommended PTY Plant
1	301	Organization Cost	[redacted]	[redacted]	$ -
2	302	Franchise Cost			-
3	303	Land and Land Rights			-
4	304	Structures and Improvements			19,438
5	305	Collecting and Impounding Res.			-
6	306	Lake River and Other Intakes			-
7	307	Wells and Springs			-
8	308	Infiltration Galleries and Tunnels			-
9	309	Supply Mains			-
10	310	Power Generation Equipment			193,841
11	311	Electric Pumping Equipment			-
12	320	Water Treatment Equipment			-
13	320.1	Water Treatment Plant			-
14	320.2	Chemical Solution Feeders			-
15	330	Dist. Reservoirs & Standpipe			-
16	330.1	Storage tanks			-
17	330.2	Pressure Tanks			-
18	331	Trans. and Dist. Mains			-
19	333	Services			-
20	334	Meters			-
21	335	Hydrants			-
22	336	Backflow Prevention Devices			-
23	339	Other Plant and Misc. Equip.			-
24	340	Office Furniture and Fixtures			-
25	340.1	Computers and Software			398
26	341	Transportation Equipment			-
27	342	Stores Equipment			-
28	343	Tools and Work Equipment			-
29	344	Laboratory Equipment			-
30	345	Power Operated Equipment			30,389
31	346	Communications Equipment			-
32	347	Miscellaneous Equipment			-
33	348	Other Tangible Plant			-
34		TOTALS	[redacted]	[redacted]	$ 244,067
35		**RUCO Total Adjustment**		[redacted]	

References:
Per Company Response to RUCO DR #2.10 - See RUCO W/P

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (c)
POST TEST YEAR PLANT ACCUMULATED DEPRECIATION DISALLOWANCE EXCEEDING 6-MONTHS TEST YEAR END

Line No.	Acct. No.	Description	[A] Depre. Rate	[B] RUCO Adjusted PTY Plant	[C] RUCO Disallowed PTY Plant	[D] RUCO Adjusted PTY Accum. Depre. Amount
1	301	Organization Cost	0.00%	[redacted]	[redacted]	$ -
2	302	Franchise Cost	0.00%			-
3	303	Land and Land Rights	0.00%			-
4	304	Structures and Improvements	3.33%			(470)
5	305	Collecting and Impounding Res.	2.50%			-
6	306	Lake River and Other Intakes	2.50%			-
7	307	Wells and Springs	3.33%			(5)
8	308	Infiltration Galleries and Tunnels	6.67%			-
9	309	Supply Mains	2.00%			-
10	310	Power Generation Equipment	5.00%			-
11	311	Electric Pumping Equipment	12.50%			(2,828)
12	320	Water Treatment Equipment	3.33%			(109)
13	320.1	Water Treatment Plant	3.33%			-
14	320.2	Chemical Solution Feeders	20.00%			-
15	330	Dist. Reservoirs & Standpipe	2.22%			-
16	330.1	Storage tanks	2.22%			-
17	330.2	Pressure Tanks	5.00%			-
18	331	Trans. and Dist. Mains	2.00%			(237)
19	333	Services	3.33%			(1,581)
20	334	Meters	8.33%			(2,343)
21	335	Hydrants	2.00%			(31)
22	336	Backflow Prevention Devices	6.67%			-
23	339	Other Plant and Misc. Equip.	6.67%			-
24	340	Office Furniture and Fixtures	6.67%			(19)
25	340.1	Computers and Software	20.00%			(34)
26	341	Transportation Equipment	20.00%			-
27	342	Stores Equipment	4.00%			-
28	343	Tools and Work Equipment	5.00%			(442)
29	344	Laboratory Equipment	10.00%			-
30	345	Power Operated Equipment	5.00%			-
31	346	Communications Equipment	10.00%			(519)
32	347	Miscellaneous Equipment	10.00%			(22,529)
33	348	Other Tangible Plant	10.00%			-
34		TOTALS		[redacted]	[redacted]	$ (31,149)
35		Company's Accumulated Depreciation on PTY Plant				-
36		**RUCO Total Adjustment**				$ (31,149)

References:
Per Company Response to RUCO DR #2.10 - See RUCO W/P and Schedule TJC-4(d) on page 1 of 2.

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (d)
CORPORATE PLANT ADJUSTMENT

Line No.	Acct. No.	Corporate Plant:	Amount
	Per Company:		
1	903	Land and Land Rights	$ 20,738
2	904	Structures and Improvements	186,562
3	940.1	Computers and Software	32,493
4		Total Per Company	$ 239,792
	Per RUCO:		
5	903	Land and Land Rights	$ -
6	904	Structures and Improvements	-
7	940.1	Computers and Software	-
8		Total Per RUCO	$ -
	RUCO Total Adjustments:		
9	903	Land and Land Rights	$ (20,738)
10	904	Structures and Improvements	(186,562)
11	940.1	Computers and Software	(32,493)
12		Total RUCO Adjustment	$ (239,792)

References:
Per Company Schedule B-2 on Page 3.3

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (d)
CORPORATE PLANT ACCUMULATED DEPRECIATION ADJUSTMENT

Line No.	Acct. No.	Corporate Plant Accumulated Depreciation:	Amount
	Per Company:		
1	903	Land and Land Rights	$ -
2	904	Structures and Improvements	4,784
3	940.1	Computers and Software	3,249
4		Total Per Company	$ 8,033
	Per RUCO:		
5	903	Land and Land Rights	$ -
6	904	Structures and Improvements	-
7	940.1	Computers and Software	-
8		Total Per RUCO	$ -
	RUCO Total Adjustments:		
9	903	Land and Land Rights	$ -
10	904	Structures and Improvements	(4,784)
11	940.1	Computers and Software	(3,249)
12		Total RUCO Adjustment	$ (8,033)

References:
Per Company Schedules B-2 on Page 3.3 and Schedule B-2 on Page 4.2

RATE BASE ADJUSTMENT NO. 5 - NOT USED
ADVANCES IN AID OF CONSTRUCTION ("AIAC")

Line No.	Description	Amount
	AIAC Adjustment #1:	
1	Company AIAC as Filed	$ -
2	RUCO Recommended AIAC per Company Response to RUCO DR 1.27 to Remove LXA Double-Count	-
3	RUCO Recommended Increase/(Decrease) Adjustment #1	$ -
	AIAC Adjustment #2:	
4		$ -
5		-
6		-
7		-
8	RUCO Recommended Increase/(Decrease) Adjustment #2	$ -
9	Company Total AIAC as Filed	$ -
10	RUCO Total Recommended AIAC Balance	-
11	RUCO Total Recommended AIAC Increase /(Decrease) Adjustments #1 & #2 Above	$ -

References:

RATE BASE ADJUSTMENT NO. 6 - NOT USED
CONTRIBUTIONS IN AID OF CONSTRUCTION (CIAC) & AMORTIZATIONS RECONSTRUCTION SCHEDULE

Line No.	Description	Amount
	Gross CIAC:	
1	Company Gross CIAC as Filed	$ -
2	RUCO Recommended Gross CIAC	-
3	RUCO Recommended Increase/(Decrease) Adjustment	$ -
	Accumulated Amoritization of CIAC:	
4	Company Accumulated Amortization of CIAC as Filed	$ -
5	RUCO Recommended Accumulated Amortization of CIAC	-
6	RUCO Recommended Increase/(Decrease) Adjustment	$ -
7	Company Net CIAC as Filed	$ -
8	RUCO Recommended Net CIAC	-
9	RUCO Net Increase/Decrease Adjustment	$ -

References:

RATE BASE ADJUSTMENT NO. 7
INTENTIONALLY LEFT BLANK

Line No.	Description	Amount
1		$ -
2		$ -
3		$ -

References:

RATE BASE ADJUSTMENT NO. 8
INTENTIONALLY LEFT BLANK

Line No.	Description	Amount

References:

RATE BASE ADJUSTMENT NO. 9
ACCUMULATED DEFERRED INCOME TAXES (ADIT)

Deferred Income Tax as of December 31, 2014

Line No.			Water & Sewer Adjusted Book Value	Water & Sewer Tax Value	Probability of Realization of Future Tax Benefit	Deductible TD (Taxable TD) Expected to be Realized	Effective Tax Rate	Future Tax Asset Current	Future Tax Asset Non Current	Future Tax Liability Current	Future Tax Liability Non Current
1		Plant-in-Service	$ 35,863,886 [1]								
2		Accum. Deprec.	(14,377,680) [1]								
3		CIAC	(6,655,517) [3]								
4	Fed.	Fixed Assets	$ 14,830,689	$ 7,457,106 [2]	100.0%	$ (7,373,583)	32.33%		-		(2,384,174)
5	State	Fixed Assets	$ 14,830,689	$ 11,351,325 [2]	100.0%	$ (3,479,365)	4.900%		-		(170,489)
6	Fed &State AIAC			3,142,609 [4]	100.0%	$ 3,142,609 [4]	0.37234		$ 1,170,119		
7								$ -	$ 1,170,119	$ -	$ (2,554,663)
8		Net Asset (Liability)						$ (1,384,544)			
9		Allocation Factor						1.0000			
10		Net Asset (Liability) Water Division						$ (1,384,544)			
11		Allocated Corporate ADIT[5]						$ (710)			
12		Total Asset (Liability) Water Division						$ (1,385,254)			
13		DIT Asset (Liability) per Books						$ (426,432)			
14		Adjustment to DIT						$ 958,822			

References:
Footnotes - See page 7.1

RATE BASE ADJUSTMENT NO. 9
ACCUMULATED DEFERRED INCOME TAXES (ADIT)

Line No.		FEDERAL			STATE		
1	[1] **Per adjusted book balances, Land not included and Corporate Plant not Included**						
2	**2 Computation of Net Tax Value December 31, 2014**						
	Based on 2014 Tax Depreciation report						
3	Adjusted Cost at December 31, 2014 per federal and state tax depr. report	$ 7,806,215			$ 11,409,466		
4	Reconciling Items not on tax report:				-		
5	Land on Tax and not on included in adjusted plant balance				-		
6	PTY Plant	872,772			872,772		
					-		
					-		
					-		
		-			-		
					-		
9	Net Unadjusted Cost tax Basis at December 31, 2012			$ 8,678,987			$ 12,282,238
	Reductions						
10	Basis Reduction 2014	$ (509,641)			$ -		
11	Depreciation for 2014	(712,240)			(930,913)		
12	PTY Plant	-					
		-			-		
		-			-		
				(1,221,881)			(930,913)
13	Net Reductions through December 31, 2012			$ 7,457,106			$ 11,351,325
14	Net tax value of plant-in-service at December 31. 2012						
15	[3] **CIAC (including impact of change to probability of realization)**						
16	Gross CIAC per adjusted book balances		$ 579,988				
17	CIAC reductions/addtions						
18	A.A per adjusted book balances	$ (304,864)					
19		-					
20			(304,864)				
21	Net CIAC before unrealized AIAC			$ 275,124			
22	Unrealized AIAC Component						
23	AIAC per adjusted book balances		$ 9,114,847				
24	Adjusted Net AIAC (see footnote 5 below)		70.0%				
25	Unrealized AIAC Component % (1-Realized AIAC Component)			$ 6,380,393			
26	Total realizable CIAC			$ 6,655,517			
	[4] **AIAC (including impact of change in probability of realization)**						
27	AIAC per adjusted book balances			$ 9,114,847			
28	Less: Unrealized AIAC (from Note 3, above)			$ (6,380,393)			
29	Subtotal			$ 2,734,454			
30	Meter and Service Line Installation Charges per adjusted book balances			408,155			
31	Total realizable AIAC			$ 3,142,609			

[5] **See work papers**

RATE BASE ADJUSTMENT NO. 10
CASH WORKING CAPITAL LEAD / LAG STUDY

Line No.	Description	[A] Company Adjusted Test Year As Filed	[B] RUCO Expense Adjustments	[C] RUCO Recommended Expense	[D] Revenue Lag Days	[E] Expense (Lead)/Lag Days	[F] Net (Lead)/Lag Days Col. [D] - Col. [E]	[G] (Lead)/Lag Factor Col. [F] / 365	[H] Cash Working Capital Requirement Col. [C] x Col. [G]
	Operating Expenses:								
1	Salaries and Wages	$ -	$ -	$ -	42.63	-	42.63	0.11679	$ -
2	Purchased Water	3,021	-	3,021	42.63	24.34	18.29	0.05011	151
3	Purchased Power	534,813	24,001	558,815	42.63	32.09	10.54	0.02888	16,136
4	Chemicals	16,800	1,248	18,047	42.63	(24.00)	66.63	0.18255	3,294
5	Fuel for Power Production	-	-	-	42.63	-	42.63	0.11679	-
6	Repairs and Maintenance	-	-	-	42.63	16.11	26.52	0.07266	-
7	Office Supplies and Expense	39,640	-	39,640	42.63	39.26	3.37	0.00923	366
8	Outside Services	-	-	-	42.63	-	42.63	0.11679	-
9	Contractual Services - Professional	1,209,810	(242,644)	967,166	42.63	19.92	22.71	0.06222	60,175
10	Contractual Services - Testing	89,695	-	89,695	42.63	26.06	16.57	0.04540	4,072
11	Contractual Services - Other	673,384	(17,943)	655,441	42.63	22.70	19.93	0.05460	35,788
12	Water Testing	-	-	-	42.63	-	42.63	0.11679	-
13	Rents	6,162	-	6,162	42.63	(6.12)	48.75	0.13356	823
14	Transportation	105,295	-	105,295	42.63	25.37	17.26	0.04729	4,979
15	Insurance	45,568	-	45,568	42.63	-	42.63	0.11679	5,322
16	Materials and Supplies	63,090	-	63,090	42.63	16.11	26.52	0.07266	4,584
17	Miscellaneous	152,340	(2,341)	149,999	42.63	(8.28)	50.91	0.13948	20,922
18	Depreciation and Amortization	-	-	-	42.63	-	-	-	-
	Taxes:								
19	General Taxes-Property[1]	$ 166,220	$ (65,439)	$ 100,781	42.63	213.96	(171.33)	(0.46939)	(47,306)
20	General Taxes-Other	-	-	-	42.63	-	42.63	0.11679	-
21	Income Tax[1]	636,086	(205,056)	431,030	42.63	37.00	5.63	0.01542	6,648
	Other:								
22	Regulatory Commission Expense	52,111	(52,111)	-	42.63	(136.54)	179.17	0.49088	-
23	Interest Expense on Proposed Long-Term Debt	-	78,130	78,130	42.63	90.25	(47.62)	(0.13047)	(10,193)
24	Total Cash Working Capital Expenses	$ 3,794,036	$ (482,156)	$ 3,311,880					
25	Total RUCO Recommended Cash Working Capital								$ 105,761
26	Total Company Proposed Cash Working Capital								160,647
27	RUCO Cash Working Capital Adjustment								$ (54,886)

References:
[1] At Proposed Rates

OPERATING INCOME SUMMARY

Line No.	Description	[A] Company Adjusted Test Year As Filed	[B] RUCO Recommended Adjustments	[C] RUCO Recommended Adjusted Test Year Amounts	[D] RUCO Recommended Changes	[E] RUCO Recommended Amounts
	Revenues:					
1	Metered Water Revenues	$ 4,530,252	$ 92,497	$ 4,622,749	$ 501,806	$ 5,124,555
2	Unmetered Water Revenues	-	-	-	-	-
3	Other Water Revenues	94,478	-	94,478	-	94,478
4	**Total Revenues**	$ 4,624,730	$ 92,497	$ 4,717,227	$ 501,806	$ 5,219,033
	Operating Expenses:					
5	Salaries and Wages	$ -	$ -	$ -	$ -	$ -
6	Purchased Water	3,021	-	3,021	-	3,021
7	Purchased Power	534,813	24,001	558,815	-	558,815
8	Chemicals	16,800	1,248	18,047	-	18,047
9	Fuel for Power Production	-	-	-	-	-
10	Repairs and Maintenance	-	-	-	-	-
11	Office Supplies and Expense	39,640	-	39,640	-	39,640
12	Outside Services	-	-	-	-	-
13	Contractual Services - Professional	1,209,810			-	
14	Contractual Services - Testing	89,695	-	89,695	-	89,695
15	Contractual Services - Other	673,384			-	
16	Water Testing	-	-	-	-	-
17	Rents	6,162	-	6,162	-	6,162
18	Transportation	105,295	-	105,295	-	105,295
19	Insurance	45,568	-	45,568	-	45,568
20	Regulatory Commission - Rate Case Expense	52,111	-	52,111	-	52,111
21	Materials and Supplies	63,090	-	63,090	-	63,090
22	Miscellaneous	152,340	(2,341)	149,999	-	149,999
23	Depreciation and Amortization	1,175,263	(69,393)	1,105,870	-	1,105,870
24	Taxes Other Than Income	-	-	-	-	-
25	Property Taxes	148,997	(53,777)	95,220	5,560	100,781
26	Income Taxes	55,166	191,092	246,258	184,772	431,030
27	**Total Operating Expenses**	$ 4,371,156			$ 190,333	$ 4,391,732
28	**Operating Income**	$ 253,574			$ 311,473	$ 827,301

References:

Column [A]: Company Schedule C-1;
Column [B]: RUCO Recommended Total Adjustments Per Schedule TJC-12 on pages 1-2 at page 2 in Column [S] at line 26;
Column [C]: Column [A] + [B] - RUCO Recommended Adjusted Test Year Amounts Per Schedule TJC-12 on page 2 of 2 in Column [T];
Column [D]: RUCO Recommended Increase/(Decrease) to Revenue Requirement;
Column [E]: Column [C] + [D] - RUCO Recommended Increase/(Decrease) Amounts for Revenue Requirement.

RUCO OPERATING INCOME ADJUSTMENTS

Line No.	Description	[A] Company Adjusted Test Year As Filed	[B] Adj. No. 1 Depreciation Expense	[C] Adj. No. 2 Property Taxes	[D] Adj. No. 3 Incentive Pay Adjustment	[E] Adj. No. 4 Pay Increase Adjustment	[F] Adj. No. 5 Declining Usage Adjustment	[G] Adj. No. 6 Intentionally Left Blank	[H] Adj. No. 7 Postage Decrease Adjustment	[I] Adj. No. 8 Intentionally Left Blank	[J] Adj. No. 9 APUC Non-Labor Adjustments
	Revenues:										
1	Metered Water Revenues	$ 4,530,252	$ -	$ -	$ -	$ -	$ 92,497	$ -	$ -	$ -	$ -
2	Unmetered Water Revenues	-	-	-	-	-	-	-	-	-	-
3	Other Water Revenues	94,478	-	-	-	-	-	-	-	-	-
4	**Total Revenues**	$ 4,624,730	$ -	$ -	$ -	$ -	$ 92,497	$ -	$ -	$ -	$ -
	Operating Expenses:										
5	Salaries and Wages	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	Purchased Water	3,021	-	-	-	-	-	-	-	-	-
7	Purchased Power	534,813	-	-	-	-	24,001	-	-	-	-
8	Chemicals	16,800	-	-	-	-	1,248	-	-	-	-
9	Fuel for Power Production	-	-	-	-	-	-	-	-	-	-
10	Repairs and Maintenance	-	-	-	-	-	-	-	-	-	-
11	Office Supplies and Expense	39,640	-	-	-	-	-	-	-	-	-
12	Outside Services	-	-	-	-	-	-	-	-	-	-
13	Contractual Services - Professional	1,209,810	-	-	(34,853)	(27,057)	-	-	-	-	
14	Contractual Services - Testing	89,695	-	-	-	-	-	-	-	-	-
15	Contractual Services - Other	673,384	-	-	-	(17,943)	-	-	-	-	-
16	Water Testing	-	-	-	-	-	-	-	-	-	-
17	Rents	6,162	-	-	-	-	-	-	-	-	-
18	Transportation	105,295	-	-	-	-	-	-	-	-	-
19	Insurance	45,568	-	-	-	-	-	-	-	-	-
20	Regulatory Commission - Rate Case Expense	52,111	-	-	-	-	-	-	-	-	-
21	Materials and Supplies	63,090	-	-	-	-	-	-	-	-	-
22	Miscellaneous	152,340	-	-	-	-	-	-	(2,341)	-	-
23	Depreciation and Amortization	1,175,263	(69,393)	-	-	-	-	-	-	-	-
24	Taxes Other Than Income	-	-	-	-	-	-	-	-	-	-
25	Property Taxes	148,997	-	(53,777)	-	-	-	-	-	-	-
26	Income Taxes	55,166	-	-	-	-	-	-	-	-	-
27	**Total Operating Expenses**	$ 4,371,156	$ (69,393)	$ (53,777)	$ (34,853)	$ (45,000)	$ 25,249	$ -	$ (2,341)	$ -	
28	**Operating Income**	$ 253,574	$ 69,393	$ 53,777	$ 34,853	$ 45,000	$ 67,248	$ -	$ 2,341	$ -	

Adjustments:

Adjustment No. 1: Depreciation Expense - See RUCO Schedule TJC-13 in Column [G] at line 45;
Adjustment No. 2: Property Taxes - See RUCO Schedule TJC-14 in Column [A] at line 18;
Adjustment No. 3: Incentive Pay - See RUCO Schedule TJC-15 on line 5;
Adjustment No. 4: Remove 2nd Pay Raise - See RUCO Schedule TJC-16 on page 1 of 1 at line 11;
Adjustment No. 5: Declining Usage - See RUCO Schedule TJC-17 on page 1 of 1 at line 10;
Adjustment No. 6: Intentionally Left Blank;
Adjustment No. 7: Postage Decrease - See RUCO Schedule TJC-19 at line 5;
Adjustment No. 8: Intentionally Left Blank;
Adjustment No. 9: APUC Non-Labor Adjustment - See RUCO Schedule TJC-21 at line 14;

References:

Column [A]: Company Schedule C-1 Adjusted Test Year as Filed;
Column [B] through [J]: RUCO Recommended Adjusted Test Year Adjustments;

RUCO OPERATING INCOME ADJUSTMENTS

Line No.	Description	[K] Adj. No. 10 Corporate Labor Adjustments	[L] Adj. No. 11 Intentionally Left Blank	[M] Adj. No. 12 Intentionally Left Blank	[N] Adj. No. 13 Corporate LU 8020 Labor Adjustment	[O] Adj. No. 14 Intentionally Left Blank	[P] Adj. No. 15 Intentionally Left Blank	[Q] Adj. No. 16 Intentionally Left Blank	[R] Adj. No. 17 Income Taxes	[S] Total RUCO Recommended Adjustments	[T] RUCO Adjusted Test Year Recommended
	Revenues:										
1	Metered Water Revenues	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 92,497	$ 4,622,749
2	Unmetered Water Revenues	-	-	-	-	-	-	-	-	-	-
3	Other Water Revenues	-	-	-	-	-	-	-	-	-	94,478
4	**Total Revenues**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 92,497	$ 4,717,227
	Operating Expenses:										
5	Salaries and Wages	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	Purchased Water	-	-	-	-	-	-	-	-	-	3,021
7	Purchased Power	-	-	-	-	-	-	-	-	24,001	558,815
8	Chemicals	-	-	-	-	-	-	-	-	1,248	18,047
9	Fuel for Power Production	-	-	-	-	-	-	-	-	-	-
10	Repairs and Maintenance	-	-	-	-	-	-	-	-	-	-
11	Office Supplies and Expense	-	-	-	-	-	-	-	-	-	39,640
12	Outside Services	-	-	-	-	-	-	-	-	-	-
13	Contractual Services - Professional		-	-		-	-	-	-	(242,644)	967,166
14	Contractual Services - Testing	-	-	-	-	-	-	-	-	-	89,695
15	Contractual Services - Other	-	-	-	-	-	-	-	-	(17,943)	655,441
16	Water Testing	-	-	-	-	-	-	-	-	-	-
17	Rents	-	-	-	-	-	-	-	-	-	6,162
18	Transportation	-	-	-	-	-	-	-	-	-	105,295
19	Insurance	-	-	-	-	-	-	-	-	-	45,568
20	Regulatory Commission - Rate Case Expense	-	-	-	-	-	-	-	-	-	52,111
21	Materials and Supplies	-	-	-	-	-	-	-	-	-	63,090
22	Miscellaneous	-	-	-	-	-	-	-	-	(2,341)	149,999
23	Depreciation and Amortization	-	-	-	-	-	-	-	-	(69,393)	1,105,870
24	Taxes Other Than Income	-	-	-	-	-	-	-	-	-	-
25	Property Taxes	-	-	-	-	-	-	-	-	(53,777)	95,220
26	Income Taxes	-	-	-	-	-	-	-	191,092	191,092	246,258
27	**Total Operating Expenses**		$ -	$ -		$ -	$ -	$ -	$ 191,092	$ (169,757)	$ 4,201,399
28	**Operating Income**		$ -	$ -		$ -	$ -	$ -	$ (191,092)	$ 262,254	$ 515,828

Adjustments:

Adjustment No. 10: APUC, LUC, and LABS 45% Labor Adjustment - See RUCO Schedule TJC-22;
Adjustment No. 11: Intentionally Left Blank;
Adjustment No. 12: Intentionally Left Blank
Adjustment No. 13: APUC Corporate LU 8020 Allocations - See RUCO Schedule TJC-25;
Adjustment No. 14: Intentionally Left Blank;
Adjustment No. 15: Intentionally Left Blank;
Adjustment No. 16: Rate Case Expense - Not Used;
Adjustment No. 17: Income Taxes - See RUCO Schedule TJC-29.

References:

Column [K] thru [R]: RUCO Recommended Adjusted Test Year Adjustments;
Column [S]: RUCO Total Adjusted Test Year Adjustments on Schedule TJC-12 page 1 of 2 in Columns [B] thru Schedule TJC-12 page 2 of 2 in Columns [K] thru [R];
Column [T]: Column [A] on Schedule TJC-12 at page 1 of 2 + Column [S] on Schedule TJC-12 page 2 of 2 - RUCO Recommended Adjusted Test Year Balances.

OPERATING INCOME ADJUSTMENT NO. 1
DEPRECIATION EXPENSE

Line No.	NARUC Account	Description	[A] Company As Filed	[B] RUCO Plant Adjustments	[C] RUCO Adjusted Plant Balances	[D] RUCO Non-Depre. Fully Depre.	[E] RUCO Depreciable UPIS Recommended	[F] Authorized Depreciation Rate	[G] RUCO Depreciation Expense Recommended
		Direct Plant:							
1	301	Organization Cost	$ -	$ -	$ -	$ -	$ -	0.00%	$ -
2	302	Franchise Cost	98,989	-	98,989	(98,989)	-	0.00%	-
3	303	Land & Land Rights	688,011	-	688,011	(688,011)	-	0.00%	-
4	304	Structures & Improvements	4,235,497	(39,394)	4,196,103	-	4,196,103	3.33%	139,730
5	305	Collecting & Impounding Reservoirs	105,644	-	105,644	-	105,644	2.50%	2,641
6	306	Lake, River, and Canal Intakes	-	-	-	-	-	2.50%	-
7	307	Wells & Springs	1,692,408	(3,449)	1,688,959	-	1,688,959	3.33%	56,242
8	308	Infiltration Galleries	-	-	-	-	-	6.67%	-
9	309	Raw Water Supply Mains	432,050	-	432,050	-	432,050	2.00%	8,641
10	310	Power Generation Equipment	195,696	(561)	195,135	-	195,135	5.00%	9,757
11	311	Pumping Equipment	3,195,256	(28,417)	3,166,839	(2,080,541)	1,086,298	12.50%	135,787
12	320	Water Treatment Equipment	117,674	(5,876)	111,798	-	111,798	3.33%	3,723
13	320.1	Water Treatment Plants	-	-	-	-	-	3.33%	-
14	320.2	Solution Chemical Feeders	-	-	-	-	-	20.00%	-
15	330	Distribution Reservoirs & Standpipes	3,195,343	-	3,195,343	-	3,195,343	2.22%	70,937
16	330.1	Storage Tanks	-	-	-	-	-	2.22%	-
17	330.2	Pressure Tanks	-	-	-	-	-	5.00%	-
18	331	Transmission & Distribution Mains	14,654,450	(9,942)	14,644,508	-	14,644,508	2.00%	292,890
19	333	Services	2,173,490	(51,303)	2,122,187	-	2,122,187	3.33%	70,669
20	334	Meters	1,959,945	(19,002)	1,940,943	(1,163,804)	777,140	8.33%	64,736
21	335	Hydrants	1,151,007	(1,811)	1,149,196	-	1,149,196	2.00%	22,984
22	336	Backflow Prevention Devices	-	-	-	-	-	6.67%	-
23	339	Other Plant & Misc Equipment	189,235	-	189,235	-	189,235	6.67%	12,622
24	340	Office Furniture & Equipment	281,034	(2,721)	278,314	(144,107)	134,207	6.67%	8,952
25	340.1	Computers & Software	166,002	(341)	165,660	(159,658)	6,002	20.00%	1,200
26	341	Transportation Equipment	519,513	-	519,513	(190,940)	328,573	20.00%	65,715
27	342	Stores Equipment	-	-	-	-	-	4.00%	-
28	343	Tools, Shop & Garage Equipment	314,385	(13,362)	301,022	(107,417)	193,605	5.00%	9,680
29	344	Laboratory Equipment	3,285	-	3,285	-	3,285	10.00%	329
30	345	Power Operated Equipment	101,250	37	101,287	-	101,287	5.00%	5,064
31	346	Communication Equipment	892,339	(10,123)	882,216	-	882,216	10.00%	88,222
32	347	Miscellaneous Equipment	662,722	(442,442)	220,280	(101,418)	118,862	10.00%	11,886
33	348	Other Tangible Plant	155,378	-	155,378	-	155,378	10.00%	15,538
34		**Direct Plant Sub-Total**	$ 37,180,603	$ (628,705)	$ 36,551,897	$ (4,734,885)	$ 31,817,012		$ 1,097,944
		Allocated Corporate Plant:							
35	903	Land & Land Rights	$ 20,738	$ (20,738)	$ -	$ -	$ -	0.00%	$ -
36	904	Structures and Improvements	225,059	(186,562)	38,497	-	38,497	2.56%	986
37	940	Office Furniture and Fixtures	24,473	-	24,473	-	24,473	6.67%	1,632
38	940.1	Computers and Software	161,580	(32,493)	129,087	-	129,087	20.00%	25,817
39		**Total Plant**	$ 37,612,452			(4,734,885)	$ 32,009,070		
40		**RUCO Total Depreciation Expense on Allowable UPIS**							$ 1,126,379
			Gross CIAC			Fully Amortized CIAC	Gross CIAC Depre. Deduction		
41		Less: Contributions in Aid of Construction	$ (579,988)			$ -	$ (579,988)	3.54%	$ (20,509)
42		Regulatory Liability					-	0.00%	-
43		RUCO Total Depreciation Expense							1,105,870
44		Company Adjusted Depreciation Expense As Filed							1,175,263
45		RUCO Increase/(Decrease) Expense Adjustment							$ (69,393)

* Fully Depreciated Per Company Schedule C-2, page 2

References:
Company B-2 and C-1 Schedules, and RUCO Schedule TJC-4, pages 1 & 2

OPERATING INCOME ADJUSTMENT NO. 2
PROPERTY TAXES

Line No.	Property Tax Calculation	[A] RUCO AS ADJUSTED	[B] RUCO RECOMMENDED
1	RUCO Adjusted Test Year Gross Revenues	$ 4,717,227	$ 4,717,227
2	Multiplied by 2	2	2
3	Subtotal (Line 1 * Line 2)	$ 9,434,454	$ 9,434,454
4a	RUCO Adjusted Test Year Gross Revenues	4,717,227	
4b	RUCO Recommended Revenue		5,219,033
5	Subtotal (Line 3 + Line 4a)	$ 14,151,681	$ 14,653,487
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	$ 4,717,227	$ 4,884,496
8	Department of Revenue Mutilplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	$ 9,434,454	$ 9,768,991
10	Plus: 10% of CWIP Per Company Schedule E-1 As Filed (Intentionally Left Blank)	-	-
11	Less: Net Book Value of Licensed Vehicles	285,294	285,294
12	Full Cash Value (Line 9 + Line 10 - Line 11)	$ 9,149,160	$ 9,483,697
13	Assessment Ratio	18.0%	18.0%
14	Assessed Value (Line 12 * Line 13)	$ 1,646,849	$ 1,707,066
15	Composite Property Tax Rate (Per RUCO Effective Property Tax Calculation)	9.2341%	9.2341%
16	RUCO Adjusted Test Year Property Tax Expense (Line 14 * Line 15)	$ 152,072	
17	Company Adjusted Test Year Property Tax Expense (Per Company Schedule C-1)	205,848	
18	RUCO Test Year Adjustment (Line 16-Line 17)	$ (53,777)	
19	Property Tax - RUCO Recommended Revenue (Line 14 * Line 15)		$ 157,632
20	RUCO Test Year Adjusted Property Tax Expense (Line 16)		152,072
21	Increase/(Decrease) to Property Tax Expense		$ 5,560
22	Increase/(Decrease) to Property Tax Expense		$ 5,560
23	Increase in Revenue Requirement		501,806
24	Increase /(Decrease) to Property Tax per Dollar Increase in Revenue (Line 22 / Line 23)		1.1081%

References:

RUCO Schedule TJC-11
RUCO Schedule TJC-4 pages 1 and 2

OPERATING INCOME ADJUSTMENT NO. 3
INCENTIVE PAY

Line No.	Description	Amount
1	Incentive Pay in Test Year	$ 636,000
2	50 / 50 Sharing Between Ratepayers and Shareholders	50.00%
3	Ratepayers Share	$ 318,000
4	Bella Vista Allocation Factor	10.96%
5	Ratepayers 50% Sharing Adjustment	$ (34,853)

References:
Per Company Response to RUCO DR 2.04
Bella Vista Allocation Factor per Company Response to Staff DR 2.7

OPERATING INCOME ADJUSTMENT NO. 4
PAYROLL INCREASE

Line No.	Description	Amount
	Contractual Services - Professional:	
1	Per RUCO's Company Schedule E W/P After APUC, LUC, and LABS and LU 8020 Labor Adjustments	[redacted]
2	RUCO Recommended Pay Increase	3.00%
3	RUCO Recommended Allowance	$ 18,439
4	Pay Increase per Company Filing	45,496
5	RUCO Adjustment	$ (27,057)
	Contractual Services - Other:	
6	Per Company Schedule C-2, Page 9	$ 580,691
7	RUCO Recommended Pay Increase	3.00%
8	RUCO Recommended Allowance	$ 17,421
9	Pay Increase per Company Filing	35,364
10	RUCO Adjustment	$ (17,943)
11	Total RUCO Adjustments to Contractual Services Professional and Other	$ (45,000)

References:
Per Company Schedule E TJB Final xls, Company Schedule C-2 on page 9, and RUCO W/P Schedule E TJB Final xls
RUCO W/P SUPP#FA#.pdf

OPERATING INCOME ADJUSTMENT NO. 5
DECLINING USAGE

Line No.	Description	Amount
	Revenue:	
1	Declining Usage Revenue Adjustment per Company Schedule C-2 on Page 7	$ (92,497)
2	RUCO Recommended Declining Usage Adjustment	-
3	RUCO Recommended Adjustment	$ 92,497
	Purchased Power Expense:	
4	Declining Usage Purchased Power Expense Adjustment per Company Schedule C-2 on Page 7	$ (24,001)
5	RUCO Recommended Declining Usage for Purchased Power Expense Adjustment	-
6	RUCO Recommended Adjustment	$ 24,001
	Chemical Expense:	
7	Declining Usage Chemical Expense Adjustment per Company Schedule C-2 on Page 7	$ (1,248)
8	RUCO Recommended Declining Usage for Chemical Expense Adjustment	-
9	RUCO Recommended Adjustment	$ 1,248
10	Total RUCO Adjustment	$ 67,248

References:
Per Company C-2 Schedules

OPERATING INCOME ADJUSTMENT NO. 6
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Line No.	Description	Amount

References:

OPERATING INCOME ADJUSTMENT NO. 7
POSTAGE DECREASE

Line No.	Description	Amount
1	Number of Water Bills in Test Year with Annualized Bill Counts	117,065
2	US Postal Service Decrease in Postage Effective April 7, 2016	(0.02)
3	RUCO Adjustment	$ (2,341)

References:
US Postal Service Price Decrease Effective April 7, 2016

OPERATING INCOME ADJUSTMENT NO. 8
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Line No.	Description	Amount

References:

OPERATING INCOME ADJUSTMENT NO. 9
APUC NON-LABOR COST ALLOCATIONS

Line No.	DESCRIPTION							AMOUNTS	
	APUC, LABS, LUC								
1	Description of APUC Expense	Total APUC Expense	Allocation Percent	APUC Amount Allocated to Affiliate	Allocation Percent	APUC Amount Allocated to Bella Vista	NARUC	RUCO Percentage Allowed	RUCO Amount Allowed
2	[redacted]								
3									
4									
5									
6									
7									
8									
9									
10									
11	Totals								
12	APUC Non-Labor per Company								[redacted]
13	APUC Non-Labor per RUCO								[redacted]
14	RUCO Adjustment								[redacted]

References:
Company Response to Staff DR 2.7

OPERATING INCOME ADJUSTMENT NO. 10
CONTRACTUAL SERVICES - PROFESSIONAL LABOR

Line No.	Description	Amount
1	Contractual Services - Professional Labor per Company	[redacted]
2	Contractual Services - Professional Recommended Labor per RUCO	[redacted]
3	RUCO Adjustment	[redacted]

References:
RUCO WP 2015 BV E Schedules - Final TJB

OPERATING INCOME ADJUSTMENT NO. 11
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Line No.	Description	Amount

References:

OPERATING INCOME ADJUSTMENT NO. 12
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Line No.	Description	Amount
1		$ -
2		-
3		$ -

References:

OPERATING INCOME ADJUSTMENT NO. 13
LU 8020 LABOR COST ALLOCATIONS

Line No.	Description	[A] Company Allocated Amount	[B] RUCO Allocated Amount	[C] RUCO As Adjusted
1	LU 8020 Labor Cost Pool Allocations	[redacted]	[redacted]	
2	Company Used a Different Bella Vista Allocation Factor than Allocation Factor Claimed in Application	[redacted]	[redacted]	
3	Company & RUCO Allocated LU 8020 Cost Pool to Bella Vista Adjustment (Column [A] - [B]	[redacted]	[redacted]	[redacted]
4	RUCO Adjustmentment			[redacted]

References:
RUCO W/P SUPP#FA#.pdf

OPERATING INCOME ADJUSTMENT NO. 14
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Line No.	Description	Amount

References:

OPERATING INCOME ADJUSTMENT NO. 15
INTENTIONALLY LEFT BLANK

Line No.	Description	Amount

References:

RATE BASE ADJUSTMENT NO. 16
RATE CASE EXPENSE

Line No.	Description	Amount
1	Company Rate Case Expense Requested	$ 260,557
2	RUCO Rate Case Expense Recommended	260,557
3	RUCO Adjustment	$ -
4	Annual Rate Case Expense Normalized Over 5-Years (Line 2 / 5-Years)	$ 52,111

References:
Per Company Schedule C-2

OPERATING INCOME ADJUSTMENT NO. 17
INCOME TAXES

Line No.	Description	[A] RUCO Adjusted Test Year Amount	[B] RUCO Recommended Amount
1	RUCO Computed Adjusted Test Year Income Tax	$ 246,258	$ 431,030
2	Company Income Tax As Filed	55,166	636,086
3	RUCO Adjustment to Income Tax Expense	$ 191,092	$ (205,056)

References:
See RUCO Schedule TJC-1 at page 2 of 2;
Company Schedule C-1 Adjusted Test Year as Filed

GROSS REVENUE CONVERSION FACTOR ("GRCF")

Line No.	Description	Amount
1	Combined Federal & State Effective Income Tax Rate	37.2340%
2	Property Tax Effective Rate	0.6955%
3	Uncollectible Revenue Effective Rate	0.0000%
4	Total Cobined Federal, State, Property, and Uncollectible Effective Rates (Sum of L1 + L2 + L3)	37.9295%
5	Operating Income % = 100% Minus Combined Federal, State, Property, Uncollectible Effective Rates (100% Minus Line 4)	62.0705%
6	$\frac{1}{\text{Operating Income \% on Line 5}}$ =	**1.6111**

References:
RUCO Schedule TJC-1, Page 1 of 2 and Page 2 of 2
RUCO Schedule TJC-11

COST OF CAPITAL

Line No.	Description	[A] DOLLAR AMOUNT	[B] CAPITAL RATIO	[C] COST RATE	[D] WEIGHTED COST RATE
1	Long-Term Debt	$ 2,634,864	30.00%	2.97%	0.89%
2	Common Equity	6,148,016	70.00%	9.17%	6.42%
3	Total Capitalization	$ 8,782,879	100.00%		
4	WEIGHTED AVERAGE COST OF CAPITAL ("WACC")				7.31%

References:
Columns [A] Thru [D]: JAC Schedules and Testimony

RIO RICO

REDACTED SCHEDULES

TABLE OF CONTENTS TO TJC SCHEDULES

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TJC-7	1	INTENTIONALLY LEFT BLANK
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TJC-18	1	INTENTIONALLY LEFT BLANK
TJC-19	1	POSTAGE DECREASE ADJUSTMENT
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TJC-21	1	ALGONQUIN POWER & UTILITIES CORP ("APUC") NON-LABOR ADJUSTMENT
TJC-22	1	CONTRACTUAL SERVICES - PROFESSIONAL LABOR ALLOCATION ADJUSTMENT
TJC-23	1	INTENTIONALLY LEFT BLANK
TJC-24	1	INTENTIONALLY LEFT BLANK
TJC-25	1	LIBERTY UTILITIES ("LU") 8020 LABOR COST ALLOCATION ADJUSTMENT
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TJC-27	1	INTENTIONALLY LEFT BLANK
TJC-28	1	RATE CASE EXPENSE - NOT USED
TJC-29	1	INCOME TAXES
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TJC-31	1	COST OF CAPITAL

RUCO RECOMMENDED REVENUE REQUIREMENT

Line No.	Description	[A] Company OCRB/FVRB Cost	[B] RUCO OCRB/FVRB Cost
1	Fair Value Rate Base	$ 8,861,632	$ 8,892,216
2	Adjusted Test Year Operating Income (Loss)	$ 340,290	$ 494,184
3	Current Rate Of Return (L2 / L1)	3.84%	5.56%
4	Required Operating Income (L5 X L1)	$ 762,189	$ 649,832
5	Required Rate Of Return On Fair Value Rate Base	8.60%	7.31%
6	Operating Income Deficiency (L4 - L2)	$ 421,899	$ 155,648
7	Gross Revenue Conversion Factor (TJC-1, Pg 2)	1.6209	1.6209
8	Increase In Gross Revenue Requirement (L7 X L6)	$ 683,836	$ 252,282
9	Adjusted Test Year Revenues	$ 3,032,792	$ 3,129,553
10	Proposed Annual Revenue (L8 + L9)	$ 3,716,628	$ 3,381,836
11	Required Percentage Increase In Revenue (L8 / L9)	22.55%	8.06%
12	Rate Of Return On Common Equity	10.80%	9.17%

References:
Column [A]: Company Schedules A-1, B-1, C-1, and D-1
Column [B]: RUCO Schedule TJC-2, TJC-11 and TJC-31

RUCO GROSS REVENUE CONVERSION FACTOR ("GRCF")

LINE NO.	DESCRIPTION	[A]	[B]	[C]
	Calculation of Gross Revenue Conversion Factor:			
1	Revenue	100.0000%		
2	Uncollecible Factor	0.0000%		
3	Revenues (L1 - L2)	100.0000%		
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	38.3040%		
5	Subtotal (L3 - L4)	61.6960%		
6	**Revenue Conversion Factor (L1 / L5)**	1.620851		
	Calculation of Uncollecttible Factor:			
7	Unity	100.0000%		
8	Combined Federal and State Tax Rate (Line 17)	37.2340%		
9	One Minus Combined Income Tax Rate (L7 - L8)	62.7660%		
10	Uncollectible Rate	0.0000%		
11	Uncollectible Factor (L9 * L10)		0.0000%	
	Calculation of Effective Tax Rate:			
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%		
13	Arizona State Income Tax Rate	4.9000%		
14	Federal Taxable Income (L12 - L13)	95.1000%		
15	Applicable Federal Income Tax Rate (Col. [C], L53)	34.0000%		
16	Effective Federal Income Tax Rate (L14 x L15)	32.3340%		
17	Combined Federal and State Income Tax Rate (L13 + L16)		37.2340%	
	Calculation of Effective Property Tax Factor			
18	Unity	100.0000%		
19	Combined Federal and State Income Tax Rate (Col. [B], L17)	37.2340%		
20	One Minus Combined Income Tax Rate (L18-L19)	62.7660%		
21	Property Tax Factor (Sch. TJC-9, Col. [B], L24)	1.7048%		
22	Effective Property Tax Factor (L20 x L21)		1.0700%	
23	Combined Federal and State Income Tax and Property Tax Rate (Col. [B], L17 + L22)			38.3040%

24	Required Operating Income (Sch. TJC-1, Col. [B] Line 4)	$ 649,832	
25	Adjusted Test Year Operating Income (Loss) (Sch. TJC-1, Col. [B], L2)	494,184	
26	Required Increase in Operating Income (L24 - L25)		$ 155,648
27	Income Taxes on Recommended Revenue (Col. [C], L52)	$ 338,568	
28	Income Taxes on Test Year Revenue (Col. [A], L52)	246,234	
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		92,333
30	Recommended Revenue Requirement (Sch. TJC-1, Col. [B], Line 10)	$ 6,179,027	
31	Uncollectible Rate (L10)	0.0000%	
32	Uncolllectible Expense on Recommended Revenue (L30 x L31)	$ -	
33	Adjusted Test Year Uncollectible Expense (Sch. TJC-6, Col. [C], L32)	$ -	
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32 - L33)		-
35	Property Tax with Recommended Revenue (Sch. TJC-9, Col. [B], L19)	$ 166,220	
36	Property Tax on Test Year Revenue (Sch. TJC-9, Col. [B], L20)	148,997	
37	Increase in Property Tax Due to Increase in Revenue (L35 - 36)		17,223
38	Total Required Increase in Revenue (Col. [B], L26 + L29 + L34 + L37)		$ 265,204

		Test Year	Revenue Increase/(Decrease)	RUCO Recommended
	Calculation of Income Tax:			
39	Revenue (Sch. TJC-1, Col. [B], Line 9 & Sch. TJC-1, Col. [B], L10)	$ 3,129,553	$ 252,282	$ 3,381,836
40	Operating Expenses Excluding Income Taxes	2,389,135		2,393,436
41	Synchronized Interest (Col. [C], L57)	79,103		79,103
42	Arizona Taxable Income (L39 - L40 - L41)	$ 661,316		$ 909,297
43	Arizona State Income Tax Rate	4.9000%		4.9000%
44	Arizona Income Tax (L42 x L43)	$ 32,404		$ 44,556
45	Federal Taxable Income (L42 - L44)	$ 628,912		$ 864,742
46	Federal Tax on First Income Bracket ($1 - $50,000) @ 15%	$ 7,500		$ 7,500
47	Federal Tax on Second Income Bracket ($51,001 - $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%	$ 99,930		$ 180,112
51	Total Federal Income Tax	$ 213,830		$ 294,012
52	Combined Federal and State Income Tax (L44 + L51)	$ 246,234		$ 338,568

53 Applicable Federal Income Tax Rate [Col. [C], L46 - Col. [A], L46] / [Col. [C], L40 - Col. [A], L40] 34.0000%

54	**Synchronized Interest Calculation:**	
55	Rate Base	$ 8,892,216
56	x Weighted Average Cost of Debt	0.8896%
57	Synchronized Interest	$ 79,103

RUCO RATE BASE SUMMARY

Line No.	Description	[A] Company As Filed OCRB/FVRB	[B] RUCO Recommended Adjustments	[C] RUCO As Adjusted OCRB/FVRB
1	Gross Utility Plant In Service	$ 37,384,534	$ 109,595	$ 37,494,129
2	Accumulated Depreciation	(16,309,712)	(41,899)	(16,351,611)
3	Net Utility Plant In Service (L1 + L2)	$ 21,074,821	$ 67,696	$ 21,142,518
	Less:			
4	Advances In Aid Of Construction ("AIAC")	$ (976,558)	$ -	$ (976,558)
5	Contribution In Aid Of Construction ("CIAC")	(20,261,911)	-	(20,261,911)
6	Accumulated Amortization of CIAC	10,388,151	-	10,388,151
7	Net CIAC (L5 + L6)	$ (9,873,760)	$ -	$ (9,873,760)
8	Customer Meter Deposits	$ (332,034)	$ -	$ (332,034)
9	Customer Security Deposits	-	-	-
10	Gross Regulatory Liability	-	-	-
11	Accumulated Amortization	-	-	-
12	Net Regulatory Liability	$ -	$ -	$ -
13	Accumulated Deferred Income Taxes ("ADIT")	$ (1,121,537)	$ 20,972	$ (1,100,565)
	Plus:			
14	Unamortized Finance Charges	-	-	-
15	Prepayments	1,508	-	1,508
16	Materials & Supplies	-	-	-
17	Cash Working Capital	89,192	(58,084)	31,108
18	TOTAL RATE BASE (Sum L's 3, 4, 7, 8, 9, 12 Thru 17)	$ 8,861,632	$ 30,585	$ 8,892,216

References:

Column [A]: Company Schedule B-1
Column [B]: TJC-3, Columns [B] Thru [K]
Column [C]: Column [A] + Column [B]

Liberty Utilities (Rio Rico Water) Corp.
Docket No. W-02465A-15-0367 et al.
Test Year Ended December 31, 2014

RATE BASE ADJUSTMENTS

Line No.	Description	[A] Company As Filed OCRB/FVRB	[B] Adjust No. 1 UPIS & A/D Adjustments	[C] Adjust No. 2 Intentionally Left Blank	[D] Adjust No. 3 Intentionally Left Blank	[E] Adjust No. 4 Intentionally Left Blank	[F] Adjust No. 5 Intentionally Left Blank	[G] Adjust No. 6 Intentionally Left Blank	[H] Adjust No. 7 Intentionally Left Blank	[I] Adjust No. 8 Intentionally Left Blank	[J] Adjust No. 9 ADIT Adjustment	[K] Adjust No. 10 Working Capital Adjustments	[L] Total RUCO Adjustments	[M] RUCO Recommended OCRB/FVRB
1	Gross Utility Plant In Service	$ 37,384,534	$ 109,595	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 109,595	$ 37,494,129
2	Accumulated Depreciation	(16,309,712)	(41,899)	-	-	-	-	-	-	-	-	-	(41,899)	(16,351,611)
3	Net Utility Plant In Service (L1 + L2)	$ 21,074,821	$ 67,696	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 67,696	$ 21,142,518
	Less:													
4	Advances In Aid Of Construction ("AIAC")	$ (976,558)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (976,558)
5	Contribution In Aid Of Construction ("CIAC")	(20,261,911)	-	-	-	-	-	-	-	-	-	-	-	(20,261,911)
6	Accumulated Amortization of CIAC	10,388,151	-	-	-	-	-	-	-	-	-	-	-	10,388,151
7	Net CIAC (L5 + L6)	$ (9,873,760)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (9,873,760)
8	Customer Meter Deposits	$ (332,034)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (332,034)
9	Customer Security Deposits	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Gross Regulatory Liability	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Accumulated Amortization	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Net Regulatory Liability	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	Accumulated Deferred Income Taxes ("ADIT")	$ (1,121,537)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,972	$ -	$ 20,972	$ (1,100,565)
	Plus:													
14	Unamortized Finance Charges	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Prepayments	1,508	-	-	-	-	-	-	-	-	-	-	-	1,508
16	Materials & Supplies	-	-	-	-	-	-	-	-	-	-	-	-	-
17	Cash Working Capital	89,192	-	-	-	-	-	-	-	-	-	(58,084)	(58,084)	31,108
18	TOTAL RATE BASE (Sum L's 3, 4, 7, 8, 9, 12 Thru 17)	$ 8,861,632	$ 67,696	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,972	$ (58,084)	$ 30,585	$ 8,892,216

RUCO Adjustments:

Adjustment No. 1: Summation of RUCO recommended Utility Plant in Service and Accumulated Depreciation Adjustments No. (a), (b), (c), and (d) - See RUCO Rate Base Adjustment No. 1 on Schedules TJC-4 on pages 1 & 2, Column [J] at line 42;
Adjustment No. 2: Intentionally Left Blank;
Adjustment No. 3: Intentionally Left Blank;
Adjustment No. 4: Intentionally Left Blank;
Adjustment No. 5: Intentionally Left Blank;
Adjustment No. 6: Intentionally Left Blank;
Adjustment No. 7: Intentionally Left Blank;
Adjustment No. 8: Intentionally Left Blank;
Adjustment No. 9: RUCO Recommended 2014 TY End Accumulated Deferred Income Tax ("ADIT") Balance After RUCO Recommended Rate Base Adjustments - See RUCO Schedule TJC-9 ADIT on page 1 of 2 at line 14;
Adjustment No. 10: RUCO Recommended Allowance for Working Capital - See RUCO Schedule TJC-10 on page 1 of 1 at line 27;

References:

Column [A]: Company Schedule B-1
Column [B] Thru Column [K]: RUCO Recommended Rate Base Adjustments
Column [L]: Sum of RUCO Recommended Rate Base Adjustments of Columns [B] through [K]
Column [M]: Column [A] + Column [L]

SUMMARY OF UTILITY PLANT IN SERVICE (UPIS) ADJUSTMENTS
UTILITY PLANT IN SERVICE (UPIS) RATE BASE ADJUSTMENT #1

Line No.	NARUC Account No.	Description	Vintage Year	[A] Company Adjusted Plant in Service As Filed	[B] RUCO Adjustment (a) UPIS & A/D Reconstruction	[C] RUCO Adjustment (b) True-Up PTY Plant Per RUCO DR 2.10	[D] RUCO Adjustment (c) PTY Plant Adjustment	[E] RUCO Adjustment (d) Corporate Plant Adjustment	[F] RUCO Adjustment (e) Intentionally Left Blank	[G] RUCO Adjustment (f) Intentionally Left Blank	[H] RUCO Adjustment (g) Intentionally Left Blank	[I] RUCO Adjustment (h) Intentionally Left Blank	[J] RUCO Total UPIS Adjustments	[K] RUCO Recommended Plant in Service
		Direct Plant:												
1	301	Organization Cost		$ 5,785	$ -		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,785
2	302	Franchise Cost		417	-		-	-	-	-	-	-	-	417
3	303	Land & Land Rights		45,968	-		-	-	-	-	-	-	-	45,968
4	304	Structures & Improvements		3,030,713	-		(39,116)	-	-	-	-	-	195,326	3,226,039
5	305	Collecting & Impounding Reservoirs		-	-		-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes		-	-		-	-	-	-	-	-	-	-
7	307	Wells & Springs		505,898	-		-	-	-	-	-	-	-	505,898
8	308	Infiltration Galleries		-	-		-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains		272,502	-		-	-	-	-	-	-	-	272,502
10	310	Power Generation Equipment		219,360	-		-	-	-	-	-	-	-	219,360
11	311	Pumping Equipment		1,952,570	-		(34,464)	-	-	-	-	-	332,046	2,284,615
12	320	Water Treatment Equipment		369,996	-		-	-	-	-	-	-	-	369,996
13	320.1	Water Treatment Plants		92	-		-	-	-	-	-	-	-	92
14	320.2	Solution Chemical Feeders		4,975	-		-	-	-	-	-	-	-	4,975
15	330	Distribution Reservoirs & Standpipes		759,320	-		-	-	-	-	-	-	-	759,320
16	330.1	Storage Tanks		1,066	-		-	-	-	-	-	-	-	1,066
17	330.2	Pressure Tanks		144	-		-	-	-	-	-	-	-	144
18	331	Transmission & Distribution Mains		22,759,460	-		(84,278)	-	-	-	-	-	(28,121)	22,731,340
19	333	Services		4,034,788	-		(591,577)	-	-	-	-	-	(206,351)	3,828,437
20	334	Meters		1,696,383	-		(58,341)	-	-	-	-	-	(17,419)	1,678,964
21	335	Hydrants		635,868	-		(1,997)	-	-	-	-	-	(860)	635,008
22	336	Backflow Prevention Devices		15,855	-		-	-	-	-	-	-	-	15,855
23	339	Other Plant & Misc Equipment		123,778	-		-	-	-	-	-	-	-	123,778
24	340	Office Furniture & Equipment		115,867	-		-	-	-	-	-	-	-	115,867
25	340.1	Computers & Software		76,919	-		-	-	-	-	-	-	-	76,919
26	341	Transportation Equipment		141,853	-		-	-	-	-	-	-	-	141,853
27	342	Stores Equipment		-	-		-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment		97,683	-		(11,769)	-	-	-	-	-	(3,651)	94,011
29	344	Laboratory Equipment		3,061	-		-	-	-	-	-	-	-	3,061
30	345	Power Operated Equipment		-	-		-	-	-	-	-	-	-	-
31	346	Communication Equipment		218,183	-		-	-	-	-	-	-	-	218,183
32	347	Miscellaneous Equipment		5,427	-		-	-	-	-	-	-	-	5,427
33	348	Other Tangible Plant		-	-		-	-	-	-	-	-	-	-
34		Rounding		-	(2)		-	-	-	-	-	-	(2)	(2)
35		**Total Direct Plant**		$ 37,093,913	$ (2)		$ (821,541)	$ -	$ -	$ -	$ -	$ -	$ 270,967	$ 37,364,881
		Allocated Corporate Plant:												
36	903	Land & Land Rights		$ 13,956	$ -	$ -	$ -	$ (13,956)	$ -	$ -	$ -	$ -	$ (13,956)	$ -
37	904	Structures and Improvements		151,457	-	-	-	(125,550)	-	-	-	-	(125,550)	25,907
38	940	Office Furniture and Fixtures		38,336	-	-	-	(21,866)	-	-	-	-	(21,866)	16,470
39	940.1	Computers and Software		86,871	-	-	-	-	-	-	-	-	-	86,871
40		**Total Allocated Corporate Plant**		$ 290,620	$ -	$ -	$ -	$ (161,372)	$ -	$ -	$ -	$ -	$ (161,372)	$ 129,248
41		**Plant Not Accounted For**		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
42		**Total Utility Plant in Service (UPIS)**		$ 37,384,534	$ (2)		$ (821,541)	$ (161,372)	$ -	$ -	$ -	$ -	$ 109,595	$ 37,494,129

RUCO Adjustments:

Adjustment No. (a): Reconstruct Utility Plant in Service ("UPIS") & Accum. Depreciation ("A/D") Balances as Filed by Company - See RUCO UPIS and A/D Adjustment No. (a) on Schedule TJC-4(a) 2009 thru 2014 TY Plant Schedules on page 7 at line 37;
Adjustment No. (b): True-Up PTY Plant per Company Response to RUCO DR 2.10 - See RUCO Schedule TJC-4(b) on pages 1 and 2, Column [B], at line 35;
Adjustment No. (c): Remove PTY Plant outside of 6-Months TY End for both UPIS & A/D - See Schedule TJC-4(c);
Adjustment No. (d): Remove Allocated APUC Corporate Plant - See RUCO Schedule TJC-4(d) on pages 1 and 2 at line 12;
Adjustment No. (e): Intentionally Left Blank;
Adjustment No. (f): Intentionally Left Blank;
Adjustment No. (g): Intentionally Left Blank;
Adjustment No. (h): Intentionally Left Blank;

References:

Column [A]: Company Schedule B-2 Adjusted Test Year as Filed
Column [B] Through [I]: RUCO Recommended UPIS Adjustments
Column [J]: Sum of Columns [B] Through [I] - RUCO Sum of Total Recommended UPIS Adjustments
Column [K]: Column [A] + [J]

SUMMARY OF ACCUMULATED DEPRECIATION (A/D) ADJUSTMENTS
UPIS ACCUMULATED DEPRECIATION RATE BASE ADJUSTMENT #1

Line No.	NARUC Account No.	Description	Vintage Year	[A] Company Adjusted Accum. Deprc. As Filed	[B] RUCO Adjustment (a) UPIS & A/D Reconstruction	[C] RUCO Adjustment (b) True-Up PTY Plant Per RUCO DR 2.10	[D] RUCO Adjustment (c) PTY Plant Adjustment	[E] RUCO Adjustment (d) Corporate Plant Adjustment	[F] RUCO Adjustment (e) Intentionally Left Blank	[G] RUCO Adjustment (f) Intentionally Left Blank	[H] RUCO Adjustment (g) Intentionally Left Blank	[I] RUCO Adjustment (h) Intentionally Left Blank	[J] RUCO Total Accum. Deprc. Adjustments	[K] RUCO Recommended Accum. Deprc.
		Direct Plant:												
1	301	Organization Cost		$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	302	Franchise Cost		-	-		-	-	-	-	-	-	-	-
3	303	Land & Land Rights		-	-		-	-	-	-	-	-	-	-
4	304	Structures & Improvements		876,050	166		(651)	-	-	-	-	-	3,418	879,468
5	305	Collecting & Impounding Reservoirs		-	-		-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes		-	-		-	-	-	-	-	-	-	-
7	307	Wells & Springs		267,496	-		-	-	-	-	-	-	-	267,496
8	308	Infiltration Galleries		-	-		-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains		52,885	-		-	-	-	-	-	-	-	52,885
10	310	Power Generation Equipment		134,264	-		-	-	-	-	-	-	-	134,264
11	311	Pumping Equipment		1,450,340	687		(2,154)	-	-	-	-	-	21,440	1,471,780
12	320	Water Treatment Equipment		218,101	-		-	-	-	-	-	-	-	218,101
13	320.1	Water Treatment Plants		2	-		-	-	-	-	-	-	-	2
14	320.2	Solution Chemical Feeders		498	-		-	-	-	-	-	-	-	498
15	330	Distribution Reservoirs & Standpipes		238,934	-		-	-	-	-	-	-	-	238,934
16	330.1	Storage Tanks		12	-		-	-	-	-	-	-	-	12
17	330.2	Pressure Tanks		4	-		-	-	-	-	-	-	-	4
18	331	Transmission & Distribution Mains		10,838,809	281		(843)	-	-	-	-	-	(0)	10,838,809
19	333	Services		731,730	3,436		(9,850)	-	-	-	-	-	(0)	731,730
20	334	Meters		705,382	23,159		(2,430)	-	-	-	-	-	22,434	727,816
21	335	Hydrants		217,184	9		(20)	-	-	-	-	-	(0)	217,184
22	336	Backflow Prevention Devices		4,180	-		-	-	-	-	-	-	-	4,180
23	339	Other Plant & Misc Equipment		52,219	-		-	-	-	-	-	-	-	52,219
24	340	Office Furniture & Equipment		37,006	13		-	-	-	-	-	-	13	37,019
25	340.1	Computers & Software		76,919	-		-	-	-	-	-	-	-	76,919
26	341	Transportation Equipment		139,877	-		-	-	-	-	-	-	-	139,877
27	342	Stores Equipment		-	-		-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment		5,654	91		(294)	-	-	-	-	-	0	5,654
29	344	Laboratory Equipment		3,061	-		-	-	-	-	-	-	-	3,061
30	345	Power Operated Equipment		-	-		-	-	-	-	-	-	-	-
31	346	Communication Equipment		206,595	-		-	-	-	-	-	-	-	206,595
32	347	Miscellaneous Equipment		1,815	-		-	-	-	-	-	-	-	1,815
33	348	Other Tangible Plant		-	-		-	-	-	-	-	-	-	-
34		Rounding		-	-		-	-	-	-	-	-	-	-
35		**Total Direct Plant**		$ 16,259,017	$ 27,842		$ (16,242)	$ -	$ -	$ -	$ -	$ -	$ 47,305	$ 16,306,322
		Allocated Corporate Plant:												
36	903	Land & Land Rights		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
37	904	Structures and Improvements		8,011	-	-	-	(3,219)	-	-	-	-	(3,219)	4,792
38	940	Office Furniture and Fixtures		1,376	-	-	-	-	-	-	-	-	-	1,376
39	940.1	Computers and Software		41,308	-	-	-	(2,187)	-	-	-	-	(2,187)	39,121
40		**Total Allocated Corporate Plant**		$ 50,695	$ -	$ -	$ -	$ (5,406)	$ -	$ -	$ -	$ -	$ (5,406)	$ 45,289
41		**Plant Not Accounted For**		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
42		**Total Utility Plant In Service (UPIS)**		$ 16,309,712	$ 27,842		$ (16,242)	$ (5,406)	$ -	$ -	$ -	$ -	$ 41,899	$ 16,351,611

RUCO Adjustments:

Adjustment No. (a): Reconstruct Utility Plant in Service ("UPIS") & Accum. Depreciation ("A/D") Balances as Filed by Company - See RUCO UPIS and A/D Adjustment No. (a) on Schedule TJC-4(a) 2009 thru 2014 TY Plant Schedules on page 7 at line 37;
Adjustment No. (b): True-Up PTY Plant per Company Response to RUCO DR 2.10 - See RUCO Schedule TJC-4(b) on pages 1 and 2, Column [B], at line 35;
Adjustment No. (c): Remove PTY Plant outside of 6-Months TY End for both UPIS & A/D - See Schedule TJC-4(c);
Adjustment No. (d): Remove Allocated APUC Corporate Plant - See RUCO Schedule TJC-4(d) on pages 1 and 2 at line 12;
Adjustment No. (e): Intentionally Left Blank;
Adjustment No. (f): Intentionally Left Blank;
Adjustment No. (g): Intentionally Left Blank;
Adjustment No. (h): Intentionally Left Blank;

References:

Column [A]: Company Schedule B-2 Adjusted Test Year as Filed
Column [B] Through [I]: RUCO Recommended UPIS Adjustments
Column [J]: Sum of Columns [B] Through [I] - RUCO Sum of Total Recommended UPIS Adjustments
Column [K]: Column [A] + [J]

UTILITY PLANT IN SERVICE & ACCUM. DEPRE.

					Per Decision 73996			2012 (10-Months - March 1 through December 31, 2012)										
Line No.	NARUC Account No.	Description	Vintage Year	Allowed Deprec. Rate	Company Plant at 2/29/2012	Accum. Deprec. At 2/29/2012	Company Net Plant at 2/29/2012	Plant Additions (Per Books)	1st-Set Plant Adjustments	2nd-Set Plant Adjustments	Affiliate Profit Adjustment	Adjusted Plant Additions	Plant Retirements	Salvage A/D Only	10-Months Depreciation (Calculated)	Plant Balance	Accum. Deprec.	Net Plant
	Direct Plant:																	
1	301	Organization Cost		0.00%	$ 5,785	$ -	$ 5,785	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,785	$ -	$ 5,785.00
2	302	Franchise Cost		0.00%	417	-	417	-	-	-	-	-	-	-	-	417	-	417
3	303	Land and Land Rights		0.00%	44,194	-	44,194	1,781	-	-	(7)	1,774	-	-	-	45,968	-	45,968
4	304	Structures & Improvements		3.33%	3,311,457	598,475	2,712,982	15,495	(14,087)	(403,209)	(19)	(401,820)	-	-	86,318	2,909,637	684,793	2,224,844
5	305	Collecting & Impounding Reservoirs		2.50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes		2.50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs		3.33%	562,937	218,973	343,964	-	(39)	(57,000)	-	(57,039)	(0)	-	14,830	505,898	233,803	272,095
8	308	Infiltration Galleries		6.67%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains		2.00%	279,157	43,831	235,326	-	-	-	-	-	-	-	4,653	279,157	48,484	230,673
10	310	Power Generation Equipment		5.00%	219,360	103,188	116,172	-	-	-	-	-	-	-	9,140	219,360	112,328	107,032
11	311	Pumping Equipment		12.50%	1,601,688	843,567	758,121	294,201	-	(6,576)	(196)	287,429	(0)	-	181,813	1,889,116	1,025,380	863,737
12	320	Water Treatment Equipment		3.33%	363,442	183,283	180,160	-	-	6,554	-	6,554	-	-	10,176	369,996	193,459	176,537
13	320.1	Water Treatment Plants		3.33%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders		20.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	330	Distribution Reservoirs & Standpipes		2.22%	759,861	191,697	568,163	-	-	-	-	-	-	-	14,057	759,861	205,755	554,106
16	330.1	Storage Tanks		2.22%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	330.2	Pressure Tanks		5.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	331	Transmission & Distribution Mains		2.00%	22,337,893	9,566,469	12,771,424	45,015	(1,492)	(110,946)	(86)	(67,508)	-	-	371,736	22,270,385	9,938,205	12,332,181
19	333	Services		3.33%	2,768,122	869,455	1,898,667	241,161	(385)	(19,340)	(773)	220,663	(0)	-	79,877	2,988,784	949,331	2,039,453
20	334	Meters		8.33%	1,010,366	536,109	474,257	44,270	(587)	(9,037)	(158)	34,489	-	-	71,333	1,044,855	607,443	437,412
21	335	Hydrants		2.00%	572,321	184,803	387,519	2,005	-	-	(13)	1,992	-	-	9,555	574,314	194,358	379,956
22	336	Backflow Prevention Devices		6.67%	6,151	1,453	4,698	-	-	9,704	-	9,704	-	-	612	15,855	2,065	13,791
23	339	Other Plant & Misc Equipment		6.67%	123,778	28,827	94,952	-	-	-	-	-	-	-	6,880	123,778	35,707	88,072
24	340	Office Furniture & Equipment		6.67%	29,265	22,865	6,400	1,030	-	-	(6)	1,023	-	-	1,655	30,289	24,520	5,768
25	340.1	Computers & Software		20.00%	76,919	76,919	-	-	-	-	-	-	-	-	-	76,919	76,919	-
26	341	Transportation Equipment		20.00%	142,188	121,824	20,364	3,840	-	-	(17)	3,823	-	-	20,682	146,011	142,506	3,505
27	342	Stores Equipment		4.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment		5.00%	18,203	11,766	6,437	19,658	-	-	(107)	19,551	-	-	1,166	37,754	12,932	24,822
29	344	Laboratory Equipment		10.00%	3,061	3,061	-	-	-	-	-	-	-	-	-	3,061	3,061	-
30	345	Power Operated Equipment		5.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	346	Communication Equipment		10.00%	212,996	147,813	65,183	8,325	-	-	(34)	8,291	-	-	18,095	221,287	165,908	55,379
32	347	Miscellaneous Equipment		10.00%	5,427	278	5,150	-	-	-	-	-	-	-	452	5,427	730	4,697
33	348	Other Tangible Plant		10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34		Rounding			(2)	-	(2)	-	-	-	-	-	-	-	-	(2)	-	(2)
35		**RUCO Total Direct UPIS & Accum. Depre.**			$ 34,454,989	$ 13,754,657	$ 20,700,332	$ 676,780	$ (16,590)	$ (589,849)	$ (1,415)	$ 68,926	$ (1)	$ -	$ 903,031	$ 34,523,914	$ 14,657,687	$ 19,866,228
36		Company As Filed			$ 34,454,991	$ 13,754,657	$ 20,700,334	$ 676,780	$ (16,590)	$ (589,849)	$ (1,415)	$ 68,926	$ (1)	$ -	$ 899,637	$ 34,523,916	$ 14,654,293	$ 19,836,332
37		RUCO UPIS & Accum. Depre. Adjustments			$ (2)	$ -	$ (2)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,394	$ (2)	$ 3,394	$ 29,896

UTILITY PLANT IN SERVICE & ACCUM. DEPRE.

Line No.	NARUC Account No.	Description	Vintage Year	Allowed Deprec. Rate	2013 Plant Additions (Per Books)	Plant Adjustments	Affiliate Profit Adjustments	Adjusted Plant Additions	Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.	Net Plant
		Direct Plant:												
1	301	Organization Cost		0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,785	$ -	$ 5,785
2	302	Franchise Cost		0.00%	-	-	-	-	-	-	-	417	-	417
3	303	Land and Land Rights		0.00%	-	-	-	-	-	-	-	45,968	-	45,968
4	304	Structures & Improvements		3.33%	11,570	-	-	11,570	-	-	97,084	2,921,207	781,876	2,139,331
5	305	Collecting & Impounding Reservoirs		2.50%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes		2.50%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs		3.33%	-	-	-	-	-	-	16,846	505,898	250,650	255,249
8	308	Infiltration Galleries		6.67%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains		2.00%	-	-	-	-	(2,177)	-	5,561	276,981	51,868	225,112
10	310	Power Generation Equipment		5.00%	-	-	-	-	-	-	10,968	219,360	123,296	96,064
11	311	Pumping Equipment		12.50%	23,173	-	(7)	23,165	(26,673)	-	235,920	1,885,609	1,234,628	650,981
12	320	Water Treatment Equipment		3.33%	-	-	-	-	-	-	12,321	369,996	205,780	164,216
13	320.1	Water Treatment Plants		3.33%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders		20.00%	-	-	-	-	-	-	-	-	-	-
15	330	Distribution Reservoirs & Standpipes		2.22%	-	-	-	-	(540)	-	16,863	759,320	222,077	537,243
16	330.1	Storage Tanks		2.22%	-	-	-	-	-	-	-	-	-	-
17	330.2	Pressure Tanks		5.00%	-	-	-	-	-	-	-	-	-	-
18	331	Transmission & Distribution Mains		2.00%	375,616	-	(327)	375,289	(430)	-	449,156	22,645,244	10,386,931	12,258,313
19	333	Services		3.33%	536,471	-	(50)	536,421	(199,053)	-	105,144	3,326,153	855,422	2,470,730
20	334	Meters		8.33%	60,686	-	(2)	60,684	(47,027)	-	87,605	1,058,511	648,021	410,491
21	335	Hydrants		2.00%	31,702	-	-	31,702	(481)	-	11,798	605,534	205,675	399,859
22	336	Backflow Prevention Devices		6.67%	-	-	-	-	-	-	1,058	15,855	3,122	12,733
23	339	Other Plant & Misc Equipment		6.67%	-	-	-	-	-	-	8,256	123,778	43,963	79,816
24	340	Office Furniture & Equipment		6.67%	84,021	-	-	84,021	-	-	4,822	114,310	29,343	84,967
25	340.1	Computers & Software		20.00%	-	-	-	-	-	-	-	76,919	76,919	-
26	341	Transportation Equipment		20.00%	-	-	-	-	-	-	765	146,011	143,271	2,740
27	342	Stores Equipment		4.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment		5.00%	49,216	-	-	49,216	(14,210)	-	2,763	72,760	1,485	71,275
29	344	Laboratory Equipment		10.00%	-	-	-	-	-	-	-	3,061	3,061	-
30	345	Power Operated Equipment		5.00%	-	-	-	-	-	-	-	-	-	-
31	346	Communication Equipment		10.00%	-	-	-	-	(3,104)	-	21,973	218,183	184,777	33,406
32	347	Miscellaneous Equipment		10.00%	-	-	-	-	-	-	543	5,427	1,273	4,155
33	348	Other Tangible Plant		10.00%	-	-	-	-	-	-	-	-	-	-
34		Rounding			-	-	-	-	-	-	-	(2)	-	(2)
35		**RUCO Total Direct UPIS & Accum. Depre.**			$ 1,172,455	$ -	$ (386)	$ 1,172,068	$ (293,696)	$ -	$ 1,089,447	$ 35,402,287	$ 15,453,438	$ 19,948,849
36		Company As Filed			$ 1,172,455	$ -	$ (386)	$ 1,172,068	$ (293,696)	$ -	$ 1,092,841	$ 35,402,289	$ 15,453,438	$ 19,860,274
37		RUCO UPIS & Accum. Depre. Adjustments			$ -	$ -	$ -	$ -	$ -	$ -	$ (3,394)	$ (2)	$ -	$ 88,575

UTILITY PLANT IN SERVICE & ACCUM. DEPRE.

					2014									
Line No.	NARUC Account No.	Description	Vintage Year	Allowed Deprec. Rate	Plant Additions (Per Books)	Plant Adjustments	Affiliate Profit Adjustments	Adjusted Plant Additions	Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.	Net Plant
		Direct Plant:												
1	301	Organization Cost		0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,785	$ -	$ 5,785
2	302	Franchise Cost		0.00%	-	-	-	-	-	-	-	417	-	417
3	303	Land and Land Rights		0.00%	-	-	-	-	-	-	-	45,968	-	45,968
4	304	Structures & Improvements		3.33%	104,312	-	-	104,312	(4,760)	-	98,934	3,020,759	876,050	2,144,709
5	305	Collecting & Impounding Reservoirs		2.50%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes		2.50%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs		3.33%	-	-	-	-	-	-	16,846	505,898	267,496	238,402
8	308	Infiltration Galleries		6.67%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains		2.00%	-	-	-	-	(4,478)	-	5,495	272,502	52,885	219,617
10	310	Power Generation Equipment		5.00%	-	-	-	-	-	-	10,968	219,360	134,264	85,096
11	311	Pumping Equipment		12.50%	79,454	-	-	79,454	(23,487)	-	239,199	1,941,577	1,450,340	491,237
12	320	Water Treatment Equipment		3.33%	-	-	-	-	-	-	12,321	369,996	218,101	151,895
13	320.1	Water Treatment Plants		3.33%	92	-	-	92	-	-	2	92	2	90
14	320.2	Solution Chemical Feeders		20.00%	4,975	-	-	4,975	-	-	498	4,975	498	4,478
15	330	Distribution Reservoirs & Standpipes		2.22%	-	-	-	-	-	-	16,857	759,320	238,934	520,386
16	330.1	Storage Tanks		2.22%	1,066	-	-	1,066	-	-	12	1,066	12	1,055
17	330.2	Pressure Tanks		5.00%	144	-	-	144	-	-	4	144	4	141
18	331	Transmission & Distribution Mains		2.00%	88,003	-	(20)	87,983	(1,887)	-	453,766	22,731,340	10,838,809	11,892,530
19	333	Services		3.33%	745,101	-	-	745,101	(242,817)	-	119,124	3,828,437	731,730	3,096,707
20	334	Meters		8.33%	116,054	-	-	116,054	(34,221)	-	91,582	1,140,344	705,382	434,962
21	335	Hydrants		2.00%	30,370	-	-	30,370	(896)	-	12,405	635,008	217,184	417,824
22	336	Backflow Prevention Devices		6.67%	-	-	-	-	-	-	1,058	15,855	4,180	11,676
23	339	Other Plant & Misc Equipment		6.67%	-	-	-	-	-	-	8,256	123,778	52,219	71,560
24	340	Office Furniture & Equipment		6.67%	1,159	-	-	1,159	-	-	7,663	115,469	37,006	78,463
25	340.1	Computers & Software		20.00%	-	-	-	-	-	-	-	76,919	76,919	-
26	341	Transportation Equipment		20.00%	-	-	-	-	(4,159)	-	765	141,853	139,877	1,975
27	342	Stores Equipment		4.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment		5.00%	21,251	-	-	21,251	-	-	4,169	94,011	5,654	88,358
29	344	Laboratory Equipment		10.00%	-	-	-	-	-	-	-	3,061	3,061	-
30	345	Power Operated Equipment		5.00%	-	-	-	-	-	-	-	-	-	-
31	346	Communication Equipment		10.00%	-	-	-	-	-	-	21,818	218,183	206,595	11,587
32	347	Miscellaneous Equipment		10.00%	-	-	-	-	-	-	543	5,427	1,815	3,612
33	348	Other Tangible Plant		10.00%	-	-	-	-	-	-	-	-	-	-
34		Rounding			-	-	-	-	-	-	-	(2)	-	(2)
35		**RUCO Total Direct UPIS & Accum. Depre.**			$ 1,191,981	$ -	$ (20)	$ 1,191,962	$ (316,704)	$ -	$ 1,122,284	$ 36,277,545	$ 16,259,017	$ 20,018,527
36		Company As Filed			$ -	$ -	$ (20)	$ 1,191,962	$ (316,704)	$ -	$ 1,122,284	$ 36,277,547	$ 16,259,017	$ 20,018,529
37		RUCO UPIS & Accum. Depre. Adjustments			$ 1,191,981	$ -	$ -	$ -	$ -	$ -	$ -	$ (2)	$ -	$ (2)

UTILITY PLANT IN SERVICE & ACCUM. DEPRE.

					2015 Post Test Year Plant Additions with Half-Year Convention for Depreciation									
Line No.	NARUC Account No.	Description	Vintage Year	Allowed Deprec. Rate	PTY Plant Additions	PTY Plant Adjustments	PTY Affiliate Profit Plant Adjustments	PTY Adjusted Plant Additions	PTY Plant Retirements	PTY Salvage A/D Only	PTY Depreciation (Calculated)	Including PTY Plant Balance	Including PTY Accum. Deprec.	Including PTY Net Plant
	Direct Plant:													
1	301	Organization Cost		0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,785	$ -	$ 5,785
2	302	Franchise Cost		0.00%	-	-	-	-	-	-	-	417	-	417
3	303	Land and Land Rights		0.00%	-	-	-	-	-	-	-	45,968	-	45,968
4	304	Structures & Improvements		3.33%	9,954	-	-	9,954	-	-	166	3,030,713	876,216	2,154,497
5	305	Collecting & Impounding Reservoirs		2.50%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes		2.50%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs		3.33%	-	-	-	-	-	-	-	505,898	267,496	238,402
8	308	Infiltration Galleries		6.67%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains		2.00%	-	-	-	-	-	-	-	272,502	52,885	219,617
10	310	Power Generation Equipment		5.00%	-	-	-	-	-	-	-	219,360	134,264	85,096
11	311	Pumping Equipment		12.50%	10,993	-	-	10,993	-	-	687	1,952,570	1,451,027	501,542
12	320	Water Treatment Equipment		3.33%	-	-	-	-	-	-	-	369,996	218,101	151,895
13	320.1	Water Treatment Plants		3.33%	-	-	-	-	-	-	-	92	2	90
14	320.2	Solution Chemical Feeders		20.00%	-	-	-	-	-	-	-	4,975	498	4,478
15	330	Distribution Reservoirs & Standpipes		2.22%	-	-	-	-	-	-	-	759,320	238,934	520,386
16	330.1	Storage Tanks		2.22%	-	-	-	-	-	-	-	1,066	12	1,055
17	330.2	Pressure Tanks		5.00%	-	-	-	-	-	-	-	144	4	141
18	331	Transmission & Distribution Mains		2.00%	28,121	-	-	28,121	-	-	281	22,759,460	10,839,090	11,920,370
19	333	Services		3.33%	206,351	-	-	206,351	-	-	3,436	4,034,788	735,165	3,299,622
20	334	Meters		8.33%	556,039	-	-	556,039	-	-	23,159	1,696,383	728,541	967,842
21	335	Hydrants		2.00%	860	-	-	860	-	-	9	635,868	217,193	418,675
22	336	Backflow Prevention Devices		6.67%	-	-	-	-	-	-	-	15,855	4,180	11,676
23	339	Other Plant & Misc Equipment		6.67%	-	-	-	-	-	-	-	123,778	52,219	71,560
24	340	Office Furniture & Equipment		6.67%	398	-	-	398	-	-	13	115,867	37,019	78,848
25	340.1	Computers & Software		20.00%	-	-	-	-	-	-	-	76,919	76,919	-
26	341	Transportation Equipment		20.00%	-	-	-	-	-	-	-	141,853	139,877	1,975
27	342	Stores Equipment		4.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment		5.00%	3,651	-	-	3,651	-	-	91	97,663	5,745	91,918
29	344	Laboratory Equipment		10.00%	-	-	-	-	-	-	-	3,061	3,061	-
30	345	Power Operated Equipment		5.00%	-	-	-	-	-	-	-	-	-	-
31	346	Communication Equipment		10.00%	-	-	-	-	-	-	-	218,183	206,595	11,587
32	347	Miscellaneous Equipment		10.00%	-	-	-	-	-	-	-	5,427	1,815	3,612
33	348	Other Tangible Plant		10.00%	-	-	-	-	-	-	-	-	-	-
34		Rounding			-	-	-	-	-	-	-	(2)	-	(2)
35		**RUCO Total Direct UPIS & Accum. Depre.**			$ 816,367	$ -	$ -	$ 816,367	$ -	$ -	$ 27,842	$ 37,093,911	$ 16,286,859	$ 20,807,052
36		Company As Filed			$ 816,367	$ -	$ -	$ 816,367	$ -	$ -	$ -	$ 37,093,913	$ 16,259,017	$ 20,834,896
37		RUCO UPIS & Accum. Depre. Adjustments			$ -	$ -	$ -	$ -	$ -	$ -	$ 27,842	$ (2)	$ 27,842	$ (27,844)

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (a)
UTILITY PLANT IN SERVICE ("UPIS") RECONSTRUCTION ADJUSTMENT

Line No.	Acct. No.	Description	[A] Company UPIS As Filed	[B] RUCO UPIS Reconstruction Adjustments	[C] RUCO Recommended UPIS Balances
		Direct Plant:			
1	301	Organization Cost	$ 5,785	$ -	$ 5,785
2	302	Franchise Cost	417	-	417
3	303	Land and Land Rights	45,968	-	45,968
4	304	Structures and Improvements	3,030,713	-	3,030,713
5	305	Collecting and Impounding Res.	-	-	-
6	306	Lake River and Other Intakes	-	-	-
7	307	Wells and Springs	505,898	-	505,898
8	308	Infiltration Galleries and Tunnels	-	-	-
9	309	Supply Mains	272,502	-	272,502
10	310	Power Generation Equipment	219,360	-	219,360
11	311	Electric Pumping Equipment	1,952,570	-	1,952,570
12	320	Water Treatment Equipment	369,996	-	369,996
13	320.1	Water Treatment Plant	92	-	92
14	320.2	Chemical Solution Feeders	4,975	-	4,975
15	330	Dist. Reservoirs & Standpipe	759,320	-	759,320
16	330.1	Storage tanks	1,066	-	1,066
17	330.2	Pressure Tanks	144	-	144
18	331	Trans. and Dist. Mains	22,759,460	-	22,759,460
19	333	Services	4,034,788	-	4,034,788
20	334	Meters	1,696,383	-	1,696,383
21	335	Hydrants	635,868	-	635,868
22	336	Backflow Prevention Devices	15,855	-	15,855
23	339	Other Plant and Misc. Equip.	123,778	-	123,778
24	340	Office Furniture and Fixtures	115,867	-	115,867
25	340.1	Computers and Software	76,919	-	76,919
26	341	Transportation Equipment	141,853	-	141,853
27	342	Stores Equipment	-	-	-
28	343	Tools and Work Equipment	97,663	-	97,663
29	344	Laboratory Equipment	3,061	-	3,061
30	345	Power Operated Equipment	-	-	-
31	346	Communications Equipment	218,183	-	218,183
32	347	Miscellaneous Equipment	5,427	-	5,427
33	348	Other Tangible Plant	-	-	-
34		Rounding	-	(2)	(2)
35		Totals	$ 37,093,913	$ (2)	$ 37,093,911
36		RUCO Adjustment		$ (2)	

References:
Per Company B-2 Plant Schedules

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (a)
UPIS ACCUMULATED DEPRECIATION RECONSTRUCTION ADJUSTMENT

Line No.	Acct. No.	Description	[A] Company Accum. Depre. As Filed	[B] RUCO Accum. Depre. Reconstruction Adjustments	[C] RUCO Recommended Accum. Depre. Balances
		Direct Plant Accumulated Depreciation:			
1	301	Organization Cost		$ -	$ -
2	302	Franchise Cost	-	-	-
3	303	Land and Land Rights	-	-	-
4	304	Structures and Improvements	876,050	166	876,216
5	305	Collecting and Impounding Res.	-	-	-
6	306	Lake River and Other Intakes	-	-	-
7	307	Wells and Springs	267,496	-	267,496
8	308	Infiltration Galleries and Tunnels	-	-	-
9	309	Supply Mains	52,885	-	52,885
10	310	Power Generation Equipment	134,264	-	134,264
11	311	Electric Pumping Equipment	1,450,340	687	1,451,027
12	320	Water Treatment Equipment	218,101	-	218,101
13	320.1	Water Treatment Plant	2	-	2
14	320.2	Chemical Solution Feeders	498	-	498
15	330	Dist. Reservoirs & Standpipe	238,934	-	238,934
16	330.1	Storage tanks	12	-	12
17	330.2	Pressure Tanks	4	-	4
18	331	Trans. and Dist. Mains	10,838,809	281	10,839,090
19	333	Services	731,730	3,436	735,165
20	334	Meters	705,382	23,159	728,541
21	335	Hydrants	217,184	9	217,193
22	336	Backflow Prevention Devices	4,180	-	4,180
23	339	Other Plant and Misc. Equip.	52,219	-	52,219
24	340	Office Furniture and Fixtures	37,006	13	37,019
25	340.1	Computers and Software	76,919	-	76,919
26	341	Transportation Equipment	139,877	-	139,877
27	342	Stores Equipment	-	-	-
28	343	Tools and Work Equipment	5,654	91	5,745
29	344	Laboratory Equipment	3,061	-	3,061
30	345	Power Operated Equipment	-	-	-
31	346	Communications Equipment	206,595	-	206,595
32	347	Miscellaneous Equipment	1,815	-	1,815
33	348	Other Tangible Plant	-	-	-
34		Rounding	-	-	-
35		Totals	$ 16,259,017	$ 27,842	$ 16,286,859
36		RUCO Adjustment		$ 27,842	

References:
Per Company B-2 Plant Schedules

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (b)
TRUE-UP POST TEST YEAR PLANT PER RUCO DR 2.10

Line No.	Acct. No.	Description	[A] Company As Filed Amount	[B] Adjusted Per RUCO DR 2.10	[C] RUCO Adjusted Amount
1	301	Organization Cost	$ -	[redacted]	[redacted]
2	302	Franchise Cost	-		
3	303	Land and Land Rights	-		
4	304	Structures and Improvements	9,954		
5	305	Collecting and Impounding Res.	-		
6	306	Lake River and Other Intakes	-		
7	307	Wells and Springs	-		
8	308	Infiltration Galleries and Tunnels	-		
9	309	Supply Mains	-		
10	310	Power Generation Equipment	-		
11	311	Electric Pumping Equipment	10,993		
12	320	Water Treatment Equipment	-		
13	320.1	Water Treatment Plant	-		
14	320.2	Chemical Solution Feeders	-		
15	330	Dist. Reservoirs & Standpipe	-		
16	330.1	Storage tanks	-		
17	330.2	Pressure Tanks	-		
18	331	Trans. and Dist. Mains	28,121		
19	333	Services	206,351		
20	334	Meters	556,039		
21	335	Hydrants	860		
22	336	Backflow Prevention Devices	-		
23	339	Other Plant and Misc. Equip.	-		
24	340	Office Furniture and Fixtures	398		
25	340.1	Computers and Software	-		
26	341	Transportation Equipment	-		
27	342	Stores Equipment	-		
28	343	Tools and Work Equipment	3,651		
29	344	Laboratory Equipment	-		
30	345	Power Operated Equipment	-		
31	346	Communications Equipment	-		
32	347	Miscellaneous Equipment	-		
33	348	Other Tangible Plant	-		
34		TOTALS	$ 816,367	[redacted]	[redacted]
35		**RUCO Total Adjustment**		[redacted]	

References:
Per Company Response to RUCO DR #2.10 - See RUCO W/P

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (b)
TRUE-UP POST TEST YEAR PLANT ACCUM. DEPRECIATION PER RUCO DR 2.10

Line No.	Acct. No.	Description	[A] Depre. Rate	[B] RUCO Adjusted PTY Plant	[C] RUCO Adjusted Accum. Depre. Amount
1	301	Organization Cost	0.00%	[redacted]	[redacted]
2	302	Franchise Cost	0.00%		
3	303	Land and Land Rights	0.00%		
4	304	Structures and Improvements	3.33%		
5	305	Collecting and Impounding Res.	2.50%		
6	306	Lake River and Other Intakes	2.50%		
7	307	Wells and Springs	3.33%		
8	308	Infiltration Galleries and Tunnels	6.67%		
9	309	Supply Mains	2.00%		
10	310	Power Generation Equipment	5.00%		
11	311	Electric Pumping Equipment	12.50%		
12	320	Water Treatment Equipment	3.33%		
13	320.1	Water Treatment Plant	3.33%		
14	320.2	Chemical Solution Feeders	20.00%		
15	330	Dist. Reservoirs & Standpipe	2.22%		
16	330.1	Storage tanks	2.22%		
17	330.2	Pressure Tanks	5.00%		
18	331	Trans. and Dist. Mains	2.00%		
19	333	Services	3.33%		
20	334	Meters	8.33%		
21	335	Hydrants	2.00%		
22	336	Backflow Prevention Devices	6.67%		
23	339	Other Plant and Misc. Equip.	6.67%		
24	340	Office Furniture and Fixtures	6.67%		
25	340.1	Computers and Software	20.00%		
26	341	Transportation Equipment	20.00%		
27	342	Stores Equipment	4.00%		
28	343	Tools and Work Equipment	5.00%		
29	344	Laboratory Equipment	10.00%		
30	345	Power Operated Equipment	5.00%		
31	346	Communications Equipment	10.00%		
32	347	Miscellaneous Equipment	10.00%		
33	348	Other Tangible Plant	10.00%		
34		TOTALS		[redacted]	[redacted]
35		Company's Accumulated Depreciation on PTY Plant			-
36		**RUCO Total Adjustment**			[redacted]

References:
Per Company Response to RUCO DR #2.10 - See RUCO W/P

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (c)
POST TEST YEAR PLANT DISALLOWANCE EXCEEDING 6-MONTHS TEST YEAR END

Line No.	Acct. No.	Description	[A] RUCO PTY Plant True-Up to RUCO DR 2.10	[B] RUCO PTY Plant Adjustments	[C] RUCO Recommended PTY Plant
1	301	Organization Cost	[redacted]	[redacted]	$ -
2	302	Franchise Cost			-
3	303	Land and Land Rights			-
4	304	Structures and Improvements			205,279
5	305	Collecting and Impounding Res.			-
6	306	Lake River and Other Intakes			-
7	307	Wells and Springs			-
8	308	Infiltration Galleries and Tunnels			-
9	309	Supply Mains			-
10	310	Power Generation Equipment			-
11	311	Electric Pumping Equipment			343,038
12	320	Water Treatment Equipment			-
13	320.1	Water Treatment Plant			-
14	320.2	Chemical Solution Feeders			-
15	330	Dist. Reservoirs & Standpipe			-
16	330.1	Storage tanks			-
17	330.2	Pressure Tanks			-
18	331	Trans. and Dist. Mains			-
19	333	Services			-
20	334	Meters			538,620
21	335	Hydrants			-
22	336	Backflow Prevention Devices			-
23	339	Other Plant and Misc. Equip.			-
24	340	Office Furniture and Fixtures			398
25	340.1	Computers and Software			-
26	341	Transportation Equipment			-
27	342	Stores Equipment			-
28	343	Tools and Work Equipment			-
29	344	Laboratory Equipment			-
30	345	Power Operated Equipment			-
31	346	Communications Equipment			-
32	347	Miscellaneous Equipment			-
33	348	Other Tangible Plant			-
34		TOTALS	[redacted]	[redacted]	$ 1,087,336
35		**RUCO Total Adjustment**		[redacted]	

References:
Per Company Response to RUCO DR #2.10 - See RUCO W/P

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (c)
POST TEST YEAR PLANT ACCUMULATED DEPRECIATION DISALLOWANCE EXCEEDING 6-MONTHS TEST YEAR END

Line No.	Acct. No.	Description	[A] Depre. Rate	[B] RUCO Adjusted PTY Plant	[C] RUCO Disallowed PTY Plant	[D] RUCO Adjusted PTY Accum. Depre. Amount
1	301	Organization Cost	0.00%	[redacted]	[redacted]	$ -
2	302	Franchise Cost	0.00%			-
3	303	Land and Land Rights	0.00%			-
4	304	Structures and Improvements	3.33%			(651)
5	305	Collecting and Impounding Res.	2.50%			-
6	306	Lake River and Other Intakes	2.50%			-
7	307	Wells and Springs	3.33%			-
8	308	Infiltration Galleries and Tunnels	6.67%			-
9	309	Supply Mains	2.00%			-
10	310	Power Generation Equipment	5.00%			-
11	311	Electric Pumping Equipment	12.50%			(2,154)
12	320	Water Treatment Equipment	3.33%			-
13	320.1	Water Treatment Plant	3.33%			-
14	320.2	Chemical Solution Feeders	20.00%			-
15	330	Dist. Reservoirs & Standpipe	2.22%			-
16	330.1	Storage tanks	2.22%			-
17	330.2	Pressure Tanks	5.00%			-
18	331	Trans. and Dist. Mains	2.00%			(843)
19	333	Services	3.33%			(9,850)
20	334	Meters	8.33%			(2,430)
21	335	Hydrants	2.00%			(20)
22	336	Backflow Prevention Devices	6.67%			-
23	339	Other Plant and Misc. Equip.	6.67%			-
24	340	Office Furniture and Fixtures	6.67%			-
25	340.1	Computers and Software	20.00%			-
26	341	Transportation Equipment	20.00%			-
27	342	Stores Equipment	4.00%			-
28	343	Tools and Work Equipment	5.00%			(294)
29	344	Laboratory Equipment	10.00%			-
30	345	Power Operated Equipment	5.00%			-
31	346	Communications Equipment	10.00%			-
32	347	Miscellaneous Equipment	10.00%			-
33	348	Other Tangible Plant	10.00%			-
34		TOTALS		[redacted]	[redacted]	$ (16,242)
35		Company's Accumulated Depreciation on PTY Plant				-
36		**RUCO Total Adjustment**				$ (16,242)

References:
Per Company Response to RUCO DR #2.10 - See RUCO W/P and Schedule TJC-4(d) on page 1 of 2.

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (d)
CORPORATE PLANT ADJUSTMENT

Line No.	Acct. No.	Description:	[A] Per Company Schedule B-2 on Page 3	[B] Per Company Schedule B-2 on Page 3.3	[C] Difference Col. [A] - [B]	[D] RUCO Adjustments
		Allocated Corporate Plant Per Company:				
1	903	Land and Land Rights	$ 13,956	$ 13,956		
2	904	Structures and Improvments	151,457	125,550		
3	940	Office Furniture and Fixtures	38,336	-		
4	940.1	Computers and Software	86,871	21,866		
		Allocated LU Sub-Corp. Plant Per Company:				
5	903	Land and Land Rights		-		
6	904	Structures and Improvments		25,907		
7	940	Office Furniture and Equipment		16,470		
8	940.1	Computers and Software		86,871		
9			290,620	$ 290,620		
		Total Allocated Corp & LU Sub Corp Plant Above:				
10	903	Land and Land Rights	$ 13,956	$ 13,956	$ -	$ (13,956)
11	904	Structures and Improvments	151,457	151,457	-	(125,550)
12	940	Office Furniture and Fixtures	38,336	16,470	21,866	(21,866)
13	940.1	Computers and Software	86,871	108,738	(21,866)	(21,866)
14			$ 290,620	$ 290,620		$ (183,238)
		RUCO Corrected Total Allocated Corp & LU Sub Corp Plant Above:				
15	903	Land and Land Rights	$ 13,956			$ (13,956)
16	904	Structures and Improvments	151,457			(125,550)
17	940	Office Furniture and Fixtures	16,470			(21,866)
18	940.1	Computers and Software	108,738			-
19			$ 290,620			$ (161,372)
20		RUCO Total Adjustment				$ (161,372)

References:
Per Company Schedules B-2 on Pages 3 and 3.3

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (d)
CORPORATE PLANT ACCUMULATED DEPRECIATION ADJUSTMENT

Line No.	Acct. No.	Description:	[A] Per Company Schedule B-2 on Page 3	[B] Per Company Schedule B-2 on Page 3.3	[C] Difference Col. [A] - [B]	[D] RUCO Adjustments
		Allocated Corporate Plant Per Company:				
1	903	Land and Land Rights	$ -	$ -		
2	904	Structures and Improvments	8,011	3,219		
3	940	Office Furniture and Fixtures	1,376	-		
4	940.1	Computers and Software	41,308	2,187		
		Allocated LU Sub-Corp. Plant Per Company:				
5	903	Land and Land Rights		-		
6	904	Structures and Improvments		4,792		
7	940	Office Furniture and Equipment		1,376		
8	940.1	Computers and Software		39,121		
		Total Allocated Corp & LU Sub Corp Plant Above:				
	903	Land and Land Rights	$ -	$ -	$ -	$ -
	904	Structures and Improvments	8,011	8,011	-	(3,219)
	940	Office Furniture and Fixtures	1,376	1,376	-	-
	940.1	Computers and Software	41,308	41,308	-	(2,187)
			$ 50,695	$ 50,695		$ (5,406)
		RUCO Total Adjustment				$ (5,406)

References:
Per Company Schedules B-2 on Pages 3 and 3.3

RATE BASE ADJUSTMENT NO. 5 - NOT USED
ADVANCES IN AID OF CONSTRUCTION ("AIAC")

Line No.	Description	Amount
	AIAC Adjustment #1:	
1	Company AIAC as Filed	$ -
2	RUCO Recommended AIAC per Company Response to RUCO DR 1.27 to Remove LXA Double-Count	-
3	RUCO Recommended Increase/(Decrease) Adjustment #1	$ -
	AIAC Adjustment #2:	
4	Parkview Investors LXA - AIAC Converted to CIAC per Arizona Administrative Code Section R14-2-606	$ -
5	Pulte LXA - AIAC Converted to CIAC per Arizona Administrative Code Section R14-2-606	-
6	Heritage Healthcare - AIAC Converted to CIAC per Arizona Administrative Code Section R14-2-606	-
7	Ray & Alma School LLC - AIAC Converted to CIAC per Arizona Administrative Code Section R14-2-606	-
8	RUCO Recommended Increase/(Decrease) Adjustment #2	$ -
9	Company Total AIAC as Filed	$ -
10	RUCO Total Recommended AIAC Balance	-
11	RUCO Total Recommended AIAC Increase /(Decrease) Adjustments #1 & #2 Above	$ -

References:

RATE BASE ADJUSTMENT NO. 6 - NOT USED
CONTRIBUTIONS IN AID OF CONSTRUCTION (CIAC) & AMORTIZATIONS RECONSTRUCTION SCHEDULE

Line No.	Description	Amount
	Gross CIAC:	
1	Company Gross CIAC as Filed	$ -
2	RUCO Recommended Gross CIAC	-
3	RUCO Recommended Increase/(Decrease) Adjustment	$ -
	Accumulated Amoritization of CIAC:	
4	Company Accumulated Amortization of CIAC as Filed	$ -
5	RUCO Recommended Accumulated Amortization of CIAC	-
6	RUCO Recommended Increase/(Decrease) Adjustment	$ -
7	Company Net CIAC as Filed	$ -
8	RUCO Recommended Net CIAC	-
9	RUCO Net Increase/Decrease Adjustment	$ -

References:

RATE BASE ADJUSTMENT NO. 7
INTENTIONALLY LEFT BLANK

Line No.	Description	Amount
1		$ -
2		$ -
3		$ -

References:

RATE BASE ADJUSTMENT NO. 8
INTENTIONALLY LEFT BLANK

Line No.	Description	Amount

References:

RATE BASE ADJUSTMENT NO. 9
ACCUMULATED DEFERRED INCOME TAXES (ADIT)

Deferred Income Tax as of December 31, 2014

Line No.			Water & Sewer Adjusted Book Value	Water & Sewer Tax Value	Probability of Realization of Future Tax Benefit	Deductible TD (Taxable TD) Expected to be Realized	Effective Tax Rate	Future Tax Asset Current	Future Tax Asset Non Current	Future Tax Liability Current	Future Tax Liability Non Current
1		Plant-in-Service	$ 51,277,394 [1]								
2		Accum. Deprec.	(22,188,813) [1]								
3		CIAC	(13,104,947) [3]								
4	Fed.	Fixed Assets	$ 15,983,634	$ 10,055,503 [2]	100.0%	$ (5,928,131)	32.33%		-		(1,916,802)
5	State	Fixed Assets	$ 15,983,634	$ 14,796,231 [2]	100.0%	$ (1,187,404)	4.900%		-		(58,183)
6	Fed &State	AIAC		783,815 [4]	100.0%	$ 783,815 [4]	37.23%		$ 291,846		
7								$ -	$ 291,846	$ -	$ (1,974,985)
8		Net Asset (Liability)						$ (1,683,139)			
9		Allocation Factor - Wastewater-Division (based on rate base before ADIT)						0.6536			
10		Net Asset (Liability) Water Division						$ (1,100,087)			
11		Allocated Corporate ADIT[5]						$ (478)			
12		RUCO Total ADIT Asset / (Liability) for Wastewater Division						$ (1,100,565)			
13		Company Adjusted TY ADIT Asset / (Liability) As Filed						$ (1,121,537)			
14		Adjustment to DIT						$ (20,972)			

Footnotes - See page 7.1

RECAP SCHEDULES:
TJC-2

RATE BASE ADJUSTMENT NO. 9 (Continued)
ACCUMULATED DEFERRED INCOME TAXES (ADIT)

Line No.		FEDERAL			STATE		
1	[1] **Per adjusted book balances, land not included**						
2							
3	[2] **Computation of Net Tax Value December 31, 2014**						
4							
5	Based on 2014 Tax Depreciation report (December 31, 2014)						
6	Adjusted Cost at December 31, 2014 per federal and state tax depr. report	$ 9,798,901			$ 14,415,812		
7	Land on Tax and not on included in adjusted plant balance						
8	PTY Plant	1,393,904			1,393,904		
9					-		
10					-		
11					-		
12					-		
13					-		
14					-		
15	Net Unadjusted Cost tax Basis at December 31, 2014			$ 11,192,805			$ 15,809,716
16							
17	Reductions						
18	Basis Reduction 2014 per federal and state tax depr. report	$ (430,281)			$ -		
19	Accumulated Depreciation 2014	(707,021)			(1,013,485)		
20	PTY Plant						
21		-			-		
22		-			-		
23							
24							
25				(1,137,302)			(1,013,485)
26	Net Reductions through December 31, 2014			$ 10,055,503			$ 14,796,231
27	Net tax value of plant-in-service at December 31. 2014						
28							
29	[3] **CIAC (including impact of change to probability of realization)**						
30	Gross CIAC per adjusted book balances		$ 25,374,157				
31	CIAC reductions/addtions						
32	A.A per adjusted book balances	$ (13,323,366)					
33		-					
34			(13,323,366)				
35	Net CIAC before unrealized AIAC			$ 12,050,792			
36							
37	Unrealized AIAC Component						
38	AIAC per adjusted book balances		$ 1,505,937				
39	Adjusted Net AIAC (see footnote 5 below)		70.0%				
40	Unrealized AIAC Component % (1-Realized AIAC Component)			$ 1,054,156			
41				$ 13,104,947			
42	Total realizable CIAC						
43							
44	[4] **AIAC (including impact of change in probability of realization)**						
45	AIAC per adjusted book balances			$ 1,505,937			
46	Less: Unrealized AIAC (from Note 3, above)			$ (1,054,156)			
47							
48	Subtotal			$ 451,781			
49	Meter and Service Line Installation Charges per adjusted book balances			332,034			
50	Total realizable AIAC			$ 783,815			
51							

RATE BASE ADJUSTMENT NO. 10
CASH WORKING CAPITAL LEAD / LAG STUDY

Line No.	Description	[A] Company Adjusted Test Year As Filed	[B] RUCO Expense Adjustments	[C] RUCO Recommended Expense	[D] Revenue Lag Days	[E] Expense (Lead)/Lag Days	[F] Net (Lead)/Lag Days Col. [D] - Col. [E]	[G] (Lead)/Lag Factor Col. [F] / 365	[H] Cash Working Capital Requirement Col. [C] x Col. [G]
	Operating Expenses:								
1	Salaries and Wages	$ -	$ -	$ -	44.96	-	44.96	0.12317	$ -
2	Purchased Water	69,895	-	69,895	44.96	27.48	17.48	0.04789	3,347
3	Purchased Power	324,148	21,271	345,419	44.96	29.04	15.92	0.04361	15,065
4	Chemicals	4,602	303	4,905	44.96	0.42	44.54	0.12202	599
5	Fuel for Power Production	-	-	-	44.96	-	44.96	0.12317	-
6	Repairs and Maintenance	-	-	-	44.96	32.84	12.12	0.03320	-
7	Office Supplies and Expense	34,071	-	34,071	44.96	38.69	6.27	0.01717	585
8	Outside Services	-	-	-	44.96	-	44.96	0.12317	-
9	Contractual Services - Professional	1,039,036	(189,293)	849,743	44.96	20.03	24.93	0.06830	58,036
10	Contractual Services - Testing	41,807	-	41,807	44.96	28.21	16.75	0.04589	1,918
11	Contractual Services - Other	97,904	(2,021)	95,883	44.96	22.20	22.76	0.06235	5,979
12	Water Testing	-	-	-	44.96	-	44.96	0.12317	-
13	Rents	4,169	-	4,169	44.96	(5.40)	50.36	0.13797	575
14	Transportation	60,352	-	60,352	44.96	28.43	16.53	0.04528	2,733
15	Insurance	27,865	-	27,865	44.96	(182.50)	227.46	0.62317	17,365
16	Materials and Supplies	29,680	-	29,680	44.96	32.84	12.12	0.03320	985
17	Miscellaneous	61,392	(1,164)	60,228	44.96	31.38	13.58	0.03720	2,241
18	Depreciation and Amortization	-	-	-	44.96	0.00	44.96	0.12317	-
19	**Total Operating Expenses**	$ 1,794,920	$ (170,905)	$ 1,624,015					
	Taxes:								
20	General Taxes-Property[1]	$ 166,715	$ (2,408)	$ 164,307	44.96	213.96	(169.00)	(0.46301)	(76,076)
21	General Taxes-Other	-	-	-	44.96	-	44.96	0.12317	-
22	Income Tax[1]	397,421	(58,853)	338,568	44.96	37.00	7.96	0.02180	7,382
	Other:								
23	Regulatory Commission Expense	33,172	(33,172)	-	44.96	(136.54)	181.50	0.49726	-
24	Interest Expense on Proposed Long-Term Debt	-	77,568	77,568	44.96	90.25	(45.29)	(0.12409)	(9,625)
25	Total Cash Working Capital Expenses	$ 2,392,228	$ (126,509)	$ 1,701,583					
26	Total RUCO Recommended Cash Working Capital								$ 31,108
27	Total Company Proposed Cash Working Capital								89,192
28	RUCO Cash Working Capital Adjustment								$ (58,084)

References:
1 At Proposed Rates

OPERATING INCOME SUMMARY

Line No.	Description	[A] Company Adjusted Test Year As Filed	[B] RUCO Recommended Adjustments	[C] RUCO Recommended Adjusted Test Year Amounts	[D] RUCO Recommended Changes	[E] RUCO Recommended Amounts
	Revenues:					
1	Metered Water Revenues	$ 2,984,538	$ 96,762	$ 3,081,299	$ 252,282	$ 3,333,581
2	Unmetered Water Revenues	-	-	-	-	-
3	Other Water Revenues	48,254	-	48,254	-	48,254
4	**Total Revenues**	$ 3,032,792	$ 96,762	$ 3,129,553	$ 252,282	$ 3,381,836
	Operating Expenses:					
5	Salaries and Wages	$ -	$ -	$ -	$ -	$ -
6	Purchased Water	69,895	-	69,895	-	69,895
7	Purchased Power	324,148	21,271	345,419	-	345,419
8	Chemicals	4,602	303	4,905	-	4,905
9	Fuel for Power Production	-	-	-	-	-
10	Repairs and Maintenance	-	-	-	-	-
11	Office Supplies and Expense	34,071	-	34,071	-	34,071
12	Outside Services	-	-	-	-	-
13	Contractual Services - Professional	1,039,036	[redacted]	[redacted]	-	[redacted]
14	Contractual Services - Testing	41,807	-	41,807	-	41,807
15	Contractual Services - Other	97,904	[redacted]	[redacted]	-	[redacted]
16	Water Testing	-	-	-	-	-
17	Rents	4,169	-	4,169	-	4,169
18	Transportation	60,352	-	60,352	-	60,352
19	Insurance	27,865	-	27,865	-	27,865
20	Regulatory Commission - Rate Case Expense	33,172	-	33,172	-	33,172
21	Materials and Supplies	29,680	-	29,680	-	29,680
22	Miscellaneous	61,392	(1,164)	60,228	-	60,228
23	Depreciation and Amortization	562,211	9,730	571,941	-	571,941
24	Taxes Other Than Income	-	-	-	-	-
25	Property Taxes	155,057	4,949	160,006	4,301	164,307
26	Income Taxes	147,142	99,092	246,234	92,333	338,568
27	**Total Operating Expenses**	$ 2,692,502	[redacted]	[redacted]	$ 96,634	$ 2,732,003
28	**Operating Income**	$ 340,290	[redacted]	[redacted]	$ 155,648	$ 649,832

References:

Column [A]: Company Schedule C-1;
Column [B]: RUCO Recommended Total Adjustments Per Schedule TJC-12 on pages 1-2 at page 2 in Column [S] at line 26;
Column [C]: Column [A] + [B] - RUCO Recommended Adjusted Test Year Amounts Per Schedule TJC-12 on page 2 of 2 in Column [T];
Column [D]: RUCO Recommended Increase/(Decrease) to Revenue Requirement;
Column [E]: Column [C] + [D] - RUCO Recommended Increase/(Decrease) Amounts for Revenue Requirement.

RUCO OPERATING INCOME ADJUSTMENTS

Line No.	Description	[A] Company Adjusted Test Year As Filed	[B] Adj. No. 1 Depreciation Expense	[C] Adj. No. 2 Property Taxes	[D] Adj. No. 3 Incentive Pay Adjustment	[E] Adj. No. 4 Pay Increase Adjustment	[F] Adj. No. 5 Declining Usage Adjustment	[G] Adj. No. 6 Intentionally Left Blank	[H] Adj. No. 7 Postage Decrease Adjustment	[I] Adj. No. 8 Intentionally Left Blank	[J] Adj. No. 9 APUC Non-Labor Adjustments
	Revenues:										
1	Metered Water Revenues	$ 2,984,538	$ -	$ -	$ -	$ -	$ 96,762	$ -	$ -	$ -	$ -
2	Unmetered Water Revenues	-	-	-	-	-	-	-	-	-	-
3	Other Water Revenues	48,254	-	-	-	-	-	-	-	-	-
4	**Total Revenues**	$ 3,032,792	$ -	$ -	$ -	$ -	$ 96,762	$ -	$ -	$ -	$ -
	Operating Expenses:										
5	Salaries and Wages	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	Purchased Water	69,895	-	-	-	-	-	-	-	-	-
7	Purchased Power	324,148	-	-	-	-	21,271	-	-	-	-
8	Chemicals	4,602	-	-	-	-	303	-	-	-	-
9	Fuel for Power Production	-	-	-	-	-	-	-	-	-	-
10	Repairs and Maintenance	-	-	-	-	-	-	-	-	-	-
11	Office Supplies and Expense	34,071	-	-	-	-	-	-	-	-	-
12	Outside Services	-	-	-	-	-	-	-	-	-	-
13	Contractual Services - Professional	1,039,036	-	-	(20,320)	(26,926)	-	-	-	-	[redacted]
14	Contractual Services - Testing	41,807	-	-	-	-	-	-	-	-	-
15	Contractual Services - Other	97,904	-	-	-	(2,021)	-	-	-	-	-
16	Water Testing	-	-	-	-	-	-	-	-	-	-
17	Rents	4,169	-	-	-	-	-	-	-	-	-
18	Transportation	60,352	-	-	-	-	-	-	-	-	-
19	Insurance	27,865	-	-	-	-	-	-	-	-	-
20	Regulatory Commission - Rate Case Expense	33,172	-	-	-	-	-	-	-	-	-
21	Materials and Supplies	29,680	-	-	-	-	-	-	-	-	-
22	Miscellaneous	61,392	-	-	-	-	-	-	(1,164)	-	-
23	Depreciation and Amortization	562,211	9,730	-	-	-	-	-	-	-	-
24	Taxes Other Than Income	-	-	-	-	-	-	-	-	-	-
25	Property Taxes	155,057	-	4,949	-	-	-	-	-	-	-
26	Income Taxes	147,142	-	-	-	-	-	-	-	-	-
27	**Total Operating Expenses**	$ 2,692,502	$ 9,730	$ 4,949	$ (20,320)	$ (28,947)	$ 21,574	$ -	$ (1,164)	$ -	[redacted]
28	**Operating Income**	$ 340,290	$ (9,730)	$ (4,949)	$ 20,320	$ 28,947	$ 75,187	$ -	$ 1,164	$ -	[redacted]

Adjustments:

Adjustment No. 1: Depreciation Expense - See RUCO Schedule TJC-13 in Column [G] at line 45;
Adjustment No. 2: Property Taxes - See RUCO Schedule TJC-14 in Column [A] at line 18;
Adjustment No. 3: Incentive Pay - See RUCO Schedule TJC-15 on line 5;
Adjustment No. 4: Remove 2nd Pay Raise - See RUCO Schedule TJC-16 on page 1 of 1 at line 11;
Adjustment No. 5: Declining Usage - See RUCO Schedule TJC-17 on page 1 of 1 at line 10;
Adjustment No. 6: Intentionally Left Blank;
Adjustment No. 7: Postage Decrease - See RUCO Schedule TJC-19 at line 5;
Adjustment No. 8: Intentionally Left Blank;
Adjustment No. 9: APUC Non-Labor Adjustment - See RUCO Schedule TJC-21 at line 14;

References:

Column [A]: Company Schedule C-1 Adjusted Test Year as Filed;
Column [B] through [J]: RUCO Recommended Adjusted Test Year Adjustments;

RUCO OPERATING INCOME ADJUSTMENTS

Line No.	Description	[K] Adj. No. 10 Corporate Labor Adjustments	[L] Adj. No. 11 Intentionally Left Blank	[M] Adj. No. 12 Intentionally Left Blank	[N] Adj. No. 13 Corporate LU 8020 Labor Adjustment	[O] Adj. No. 14 Intentionally Left Blank	[P] Adj. No. 15 Intentionally Left Blank	[Q] Adj. No. 16 Intentionally Left Blank	[R] Adj. No. 17 Income Taxes	[S] Total RUCO Recommended Adjustments	[T] RUCO Adjusted Test Year Recommended
	Revenues:										
1	Metered Water Revenues	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 96,762	$ 3,081,299
2	Unmetered Water Revenues	-	-	-	-	-	-	-	-	-	-
3	Other Water Revenues	-	-	-	-	-	-	-	-	-	48,254
4	**Total Revenues**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 96,762	$ 3,129,553
	Operating Expenses:										
5	Salaries and Wages	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	Purchased Water	-	-	-	-	-	-	-	-	-	69,895
7	Purchased Power	-	-	-	-	-	-	-	-	21,271	345,419
8	Chemicals	-	-	-	-	-	-	-	-	303	4,905
9	Fuel for Power Production	-	-	-	-	-	-	-	-	-	-
10	Repairs and Maintenance	-	-	-	-	-	-	-	-	-	-
11	Office Supplies and Expense	-	-	-	-	-	-	-	-	-	34,071
12	Outside Services	-	-	-	-	-	-	-	-	-	-
13	Contractual Services - Professional	[redacted]	-	-	[redacted]	-	-	-	-	(189,293)	849,743
14	Contractual Services - Testing	-	-	-	-	-	-	-	-	-	41,807
15	Contractual Services - Other	-	-	-	-	-	-	-	-	(2,021)	95,883
16	Water Testing	-	-	-	-	-	-	-	-	-	-
17	Rents	-	-	-	-	-	-	-	-	-	4,169
18	Transportation	-	-	-	-	-	-	-	-	-	60,352
19	Insurance	-	-	-	-	-	-	-	-	-	27,865
20	Regulatory Commission - Rate Case Expense	-	-	-	-	-	-	-	-	-	33,172
21	Materials and Supplies	-	-	-	-	-	-	-	-	-	29,680
22	Miscellaneous	-	-	-	-	-	-	-	-	(1,164)	60,228
23	Depreciation and Amortization	-	-	-	-	-	-	-	-	9,730	571,941
24	Taxes Other Than Income	-	-	-	-	-	-	-	-	-	-
25	Property Taxes	-	-	-	-	-	-	-	-	4,949	160,006
26	Income Taxes	-	-	-	-	-	-	-	99,092	99,092	246,234
27	**Total Operating Expenses**	[redacted]	$ -	$ -	[redacted]	$ -	$ -	$ -	$ 99,092	$ (57,133)	$ 2,635,369
28	**Operating Income**	[redacted]	$ -	$ -	[redacted]	$ -	$ -	$ -	$ (99,092)	$ 153,895	$ 494,184

Adjustments:

Adjustment No. 10: APUC, LUC, and LABS 45% Labor Adjustment - See RUCO Schedule TJC-22;
Adjustment No. 11: Intentionally Left Blank;
Adjustment No. 12: Intentionally Left Blank
Adjustment No. 13: APUC Corporate LU 8020 Allocations - See RUCO Schedule TJC-25;
Adjustment No. 14: Intentionally Left Blank;
Adjustment No. 15: Intentionally Left Blank;
Adjustment No. 16: Rate Case Expense - Not Used;
Adjustment No. 17: Income Taxes - See RUCO Schedule TJC-29.

References:

Column [K] thru [R]: RUCO Recommended Adjusted Test Year Adjustments;
Column [S]: RUCO Total Adjusted Test Year Adjustments on Schedule TJC-12 page 1 of 2 in Columns [B] thru Schedule TJC-12 page 2 of 2 in Columns [K] thru [R];
Column [T]: Column [A] on Schedule TJC-12 at page 1 of 2 + Column [S] on Schedule TJC-12 page 2 of 2 - RUCO Recommended Adjusted Test Year Balances.

OPERATING INCOME ADJUSTMENT NO. 1
DEPRECIATION EXPENSE

Line No.	NARUC Account	Description	[A] Company As Filed	[B] RUCO Plant Adjustments	[C] RUCO Adjusted Plant Balances	[D] RUCO Non-Depre. Fully Depre.	[E] RUCO Depreciable UPIS Recommended	[F] Authorized Depreciation Rate	[G] RUCO Depreciation Expense Recommended
		Direct Plant:							
1	301	Organization Cost	$ 5,785	$ -	$ 5,785	$ (5,785)	$ -	0.00%	$ -
2	302	Franchise Cost	417	-	417	(417)	-	0.00%	-
3	303	Land and Land Rights	45,968	-	45,968	(45,968)	-	0.00%	-
4	304	Structures and Improvements	3,030,713	195,326	3,226,039	-	3,226,039	3.33%	107,427
5	305	Collecting and Impounding Res.	-	-	-	-	-	2.50%	-
6	306	Lake River and Other Intakes	-	-	-	-	-	2.50%	-
7	307	Wells and Springs	505,898	-	505,898	-	505,898	3.33%	16,846
8	308	Infiltration Galleries and Tunnels	-	-	-	-	-	6.67%	-
9	309	Supply Mains	272,502	-	272,502	-	272,502	2.00%	5,450
10	310	Power Generation Equipment	219,360	-	219,360	-	219,360	5.00%	10,968
11	311	Electric Pumping Equipment	1,952,570	332,046	2,284,615	-	2,284,615	12.50%	285,577
12	320	Water Treatment Equipment	369,996	-	369,996	-	369,996	3.33%	12,321
13	320.1	Water Treatment Plant	92	-	92	-	92	3.33%	3
14	320.2	Chemical Solution Feeders	4,975	-	4,975	-	4,975	20.00%	995
15	330	Dist. Reservoirs & Standpipe	759,320	-	759,320	-	759,320	2.22%	16,857
16	330.1	Storage tanks	1,066	-	1,066	-	1,066	2.22%	24
17	330.2	Pressure Tanks	144	-	144	-	144	5.00%	7
18	331	Trans. and Dist. Mains	22,759,460	(28,121)	22,731,340	-	22,731,340	2.00%	454,627
19	333	Services	4,034,788	(206,351)	3,828,437	-	3,828,437	3.33%	127,487
20	334	Meters	1,696,383	(17,419)	1,678,964	-	1,678,964	8.33%	139,858
21	335	Hydrants	635,868	(860)	635,008	-	635,008	2.00%	12,700
22	336	Backflow Prevention Devices	15,855	-	15,855	-	15,855	6.67%	1,058
23	339	Other Plant and Misc. Equip.	123,778	-	123,778	-	123,778	6.67%	8,256
24	340	Office Furniture and Fixtures	115,867	-	115,867	-	115,867	6.67%	7,728
25	340.1	Computers and Software	76,919	-	76,919	(76,919)	-	20.00%	-
26	341	Transportation Equipment	141,853	-	141,853	(138,029)	3,823	20.00%	765
27	342	Stores Equipment	-	-	-	-	-	4.00%	-
28	343	Tools and Work Equipment	97,663	(3,651)	94,011	-	94,011	5.00%	4,701
29	344	Laboratory Equipment	3,061	-	3,061	(3,061)	-	10.00%	-
30	345	Power Operated Equipment	-	-	-	-	-	5.00%	-
31	346	Communications Equipment	218,183	-	218,183	-	218,183	10.00%	21,818
32	347	Miscellaneous Equipment	5,427	-	5,427	-	5,427	10.00%	543
33	348	Other Tangible Plant	-	-	-	-	-	10.00%	-
34		Rounding	-	(2)	(2)	(2)	(2)		
35		**Direct Plant Sub-Total**	$ 37,093,913	$ 270,967	$ 37,364,881	$ (270,181)	$ 37,094,701		$ 1,236,015
		Allocated Corporate Plant:							
36	903	Land & Land Rights	$ 13,956	$ (13,956)	$ -	$ -	$ -	0.00%	$ -
37	904	Structures and Improvements	151,457	(125,550)	25,907	-	25,907	2.56%	663
38	940	Office Furniture and Fixtures	38,336	(21,866)	16,470	-	16,470	6.67%	1,099
39	940.1	Computers and Software	86,871	-	86,871	-	86,871	20.00%	17,374
		Sub-Totals	$ 37,384,534	$ 109,595	$ 37,494,129	$ (270,181)	$ 37,223,949		$ 1,255,151
			Gross CIAC			Fully Amortized CIAC	Gross CIAC Depre. Deduction		
40		Less: Contributions in Aid of Construction	$ 20,261,911			-	$ 20,261,911	3.37%	$ (683,210)
41		Regulatory Liability					-	0.00%	-
42		RUCO Total Depreciation Expense							571,941
43		Company Adjusted Depreciation Expense As Filed							562,211
44		RUCO Increase/(Decrease) Expense Adjustment							$ 9,730

* Fully Depreciated Per Company Schedule C-2, page 2

References:
Company B-2 and C-1 Schedules, and RUCO Schedule TJC-4(a), pages 1 & 2

OPERATING INCOME ADJUSTMENT NO. 2
PROPERTY TAXES

Line No.	Property Tax Calculation	[A] RUCO AS ADJUSTED	[B] RUCO RECOMMENDED
1	RUCO Adjusted Test Year Gross Revenues	$ 3,129,553	$ 3,129,553
2	Multiplied by 2	2	2
3	Subtotal (Line 1 * Line 2)	$ 6,259,107	$ 6,259,107
4a	RUCO Adjusted Test Year Gross Revenues	3,129,553	
4b	RUCO Recommended Revenue		3,381,836
5	Subtotal (Line 3 + Line 4a)	$ 9,388,660	$ 9,640,942
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	$ 3,129,553	$ 3,213,647
8	Department of Revenue Mutilplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	$ 6,259,107	$ 6,427,295
10	Plus: 10% of CWIP Per Company Schedule E-1 As Filed (Intentionally Left Blank)	-	-
11	Less: Net Book Value of Licensed Vehicles	1,975	1,975
12	Full Cash Value (Line 9 + Line 10 - Line 11)	$ 6,257,131	$ 6,425,319
13	Assessment Ratio	18.0%	18.0%
14	Assessed Value (Line 12 * Line 13)	$ 1,126,284	$ 1,156,558
15	Composite Property Tax Rate (Per RUCO Effective Property Tax Calculation)	14.2066%	14.2066%
16	RUCO Adjusted Test Year Property Tax Expense (Line 14 * Line 15)	$ 160,006	
17	Company Adjusted Test Year Property Tax Expense (Per Company Schedule C-1)	155,057	
18	RUCO Test Year Adjustment (Line 16-Line 17)	$ 4,949	
19	Property Tax - RUCO Recommended Revenue (Line 14 * Line 15)		$ 164,307
20	RUCO Test Year Adjusted Property Tax Expense (Line 16)		160,006
21	Increase/(Decrease) to Property Tax Expense		$ 4,301
22	Increase/(Decrease) to Property Tax Expense		$ 4,301
23	Increase in Revenue Requirement		252,282
24	Increase /(Decrease) to Property Tax per Dollar Increase in Revenue (Line 22 / Line 23)		1.7048%

References:

RUCO Schedule TJC-11
RUCO Schedule TJC-4(a) page 1 of 2

OPERATING INCOME ADJUSTMENT NO. 3
INCENTIVE PAY

Line No.	Description	Amount
1	Incentive Pay in Test Year	$ 636,000
2	50 / 50 Sharing Between Ratepayers and Shareholders	50.00%
3	Ratepayers Share	$ 318,000
4	Bella Vista Allocation Factor	6.39%
5	Ratepayers 50% Sharing Adjustment	$ (20,320)

References:
Per Company Response to RUCO DR 2.04
Rio Rico Water Allocation Factor per Company Response to Staff DR 2.7

OPERATING INCOME ADJUSTMENT NO. 4
PAYROLL INCREASE

Line No.	Description	Amount
	Contractual Services - Professional:	
1	Per RUCO's Company Schedule E W/P After APUC, LUC, and LABS Labor Adjustments	[redacted]
2	RUCO Recommended Pay Increase	3.00%
3	RUCO Recommended Allowance	$ 19,408
4	Pay Increase per Company Filing	46,334
5	RUCO Adjustment	$ (26,926)
	Contractual Services - Other:	
6	Per Company Schedule C-2, Page 9	$ 65,420
7	RUCO Recommended Pay Increase	3.00%
8	RUCO Recommended Allowance	$ 1,963
9	Pay Increase per Company Filing	3,984
10	RUCO Adjustment	$ (2,021)
11	Total RUCO Adjustments to Contractual Services Professional and Other	$ (28,947)

References:
Per Company Schedule E TJB Final xls, Company Schedule C-2 on page 9, and RUCO W/P Schedule E TJB Final xls
RUCO W/P SUPP#FA#.pdf

OPERATING INCOME ADJUSTMENT NO. 5
DECLINING USAGE

Line No.	Description	Amount
	Revenue:	
1	Declining Usage Revenue Adjustment per Company Schedule C-2 on Page 7	$ (96,762)
2	RUCO Recommended Declining Usage Adjustment	-
3	RUCO Recommended Adjustment	$ 96,762
	Purchased Power Expense:	
4	Declining Usage Purchased Power Expense Adjustment per Company Schedule C-2 on Page 7	$ (21,271)
5	RUCO Recommended Declining Usage for Purchased Power Expense Adjustment	-
6	RUCO Recommended Adjustment	$ 21,271
	Chemical Expense:	
7	Declining Usage Chemical Expense Adjustment per Company Schedule C-2 on Page 7	$ (303)
8	RUCO Recommended Declining Usage for Chemical Expense Adjustment	-
9	RUCO Recommended Adjustment	$ 303
10	Total RUCO Adjustment	$ 75,187

References:
Per Company C-2 Schedules

OPERATING INCOME ADJUSTMENT NO. 6
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Line No.	Description	Amount

References:

OPERATING INCOME ADJUSTMENT NO. 7
POSTAGE DECREASE

Line No.	Description	Amount
1	Number of Water Bills in Test Year with Annualized Bill Counts	76,897
2	US Postal Service Decrease in Postage Effective April 7, 2016	($0.02)
3	Total Adjustment in Postage Due to Postage Price Decrease	$ (1,538)
4	Rio Rico Water Allocation Factor	75.67%
5	RUCO Adjustment	$ (1,164)

References:
US Postal Service Price Decrease Effective April 7, 2016

OPERATING INCOME ADJUSTMENT NO. 8
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Line No.	Description	Amount

References:

OPERATING INCOME ADJUSTMENT NO. 9
APUC ALLOCATIONS

Line No.	DESCRIPTION							AMOUNTS	
	APUC, LABS, LUC								
1	Description of APUC Expense	Total APUC Expense	Allocation Percent	APUC Amount Allocated to Affiliate	Allocation Percent	Amount Allocated to Rio Rico Water	NARUC	RUCO Percentage Allowed	RUCO Amount Allowed
2	[redacted]								
3									
4									
5									
6									
7									
8									
9									
10									
11	Totals								

12	APUC Non-Labor per Company	[redacted]
13	APUC Non-Labor per RUCO	[redacted]
14	RUCO Adjustment	[redacted]

References:
Company Response to Staff DR 2.7

OPERATING INCOME ADJUSTMENT NO. 10
CONTRACTUAL SERVICES - PROFESSIONAL LABOR

Line No.	Description	Amount
1	Contractual Services - Professional Labor per Company	[redacted]
2	Contractual Services - Professional Recommended Labor per RUCO	[redacted]
3	RUCO Adjustment	[redacted]

References:
RUCO RR W 2015 Rio Rico E Schedules

OPERATING INCOME ADJUSTMENT NO. 11
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Line No.	Description	Amount

References:

OPERATING INCOME ADJUSTMENT NO. 12
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Line No.	Description	Amount
1		$ -
2		-
3		$ -

References:

OPERATING INCOME ADJUSTMENT NO. 13
LU 8020 LABOR COST ALLOCATIONS

Line No.	Description	[A] Company Allocated Amount	[B] RUCO Allocated Amount	[C] RUCO As Adjusted
1	LU 8020 Labor Cost Pool Allocations	[redacted]	[redacted]	
2	Company Used a Different Rio Rico Allocation Factor than Allocation Factor Claimed in Application	[redacted]	[redacted]	
3	Company & RUCO Allocated LU 8020 Cost Pool to RRUI Water Adjustment (Column [A] - [B]	[redacted]	[redacted]	[redacted]
4	RUCO Adjustmentment			[redacted]

References:
RUCO W/P SUPP#FA#.pdf

OPERATING INCOME ADJUSTMENT NO. 14
INTENTIONALLY LEFT BLANK

Line No.	Description	Amount

References:

OPERATING INCOME ADJUSTMENT NO. 15
INTENTIONALLY LEFT BLANK

Line No.	Description	Amount

References:

RATE BASE ADJUSTMENT NO. 16
RATE CASE EXPENSE

Line No.	Description	Amount
1	Company Rate Case Expense Requested	$ 165,860
2	RUCO Rate Case Expense Recommended	165,860
3	RUCO Adjustment	$ -
4	Annual Rate Case Expense Normalized Over 5-Years (Line 2 / 5-Years)	$ 33,172

References:
Per Company Schedule C-2

OPERATING INCOME ADJUSTMENT NO. 17
INCOME TAXES

Line No.	Description	[A] RUCO Adjusted Test Year Amount	[B] RUCO Recommended Amount
1	RUCO Computed Adjusted Test Year Income Tax	$ 246,234	$ 338,568
2	Company Income Tax As Filed	147,142	397,421
3	RUCO Adjustment to Income Tax Expense	$ 99,092	$ (58,853)

References:
See RUCO Schedule TJC-1 at page 2 of 2;
Company Schedule C-1 Adjusted Test Year as Filed

GROSS REVENUE CONVERSION FACTOR (GRCF)

Line No.	Description	Amount
1	Combined Federal & State Effective Income Tax Rate	37.2340%
2	Property Tax Effective Rate	1.0700%
3	Uncollectible Revenue Effective Rate	0.0000%
4	Total Cobined Federal, State, Property, and Uncollectible Effective Rates (Sum of L1 + L2 + L3)	38.3040%
5	Operating Income % = 100% Minus Combined Federal, State, Property, Uncollectible Effective Rates (100% Minus Line 4)	61.6960%
6	$\frac{1}{\text{Operating Income \% on Line 5}}$ =	**1.6209**

References:
RUCO Schedule TJC-1, Page 1 of 2 and Page 2 of 2
RUCO Schedule TJC-11

COST OF CAPITAL

Line No.	Description	[A] DOLLAR AMOUNT	[B] CAPITAL RATIO	[C] COST RATE	[D] WEIGHTED COST RATE
1	Long-Term Debt	$ 4,938,067	30.00%	2.97%	0.89%
2	Common Equity	11,522,155	70.00%	9.17%	6.42%
3	Total Capitalization	$ 16,460,222	100.00%		
4	WEIGHTED AVERAGE COST OF CAPITAL ("WACC")				7.31%

References:
Columns [A] Thru [D]: JAC Schedules & Testimony

TABLE OF CONTENTS TO TJC SCHEDULES

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TJC-7	1	INTENTIONALLY LEFT BLANK
TJC-8	1	INTENTIONALLY LEFT BLANK
TJC-9	1	ACCUMULATED DEFERRED INCOME TAX ("ADIT")
TJC-10	1	ALLOWANCE FOR WORKING CAPITAL
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TJC-17	1	DECLINING USAGE ADJUSTMENT
TJC-18	1	INTENTIONALLY LEFT BLANK
TJC-19	1	POSTAGE DECREASE ADJUSTMENT
TJC-20	1	INTENTIONALLY LEFT BLANK
TJC-21	1	ALGONQUIN POWER & UTILITIES CORP ("APUC") NON-LABOR ADJUSTMENT
TJC-22	1	CONTRACTUAL SERVICES - PROFESSIONAL LABOR ALLOCATION ADJUSTMENT
TJC-23	1	INTENTIONALLY LEFT BLANK
TJC-24	1	INTENTIONALLY LEFT BLANK
TJC-25	1	LIBERTY UTILITIES ("LU") 8020 LABOR COST ALLOCATION ADJUSTMENT
TJC-26	1	INTENTIONALLY LEFT BLANK
TJC-27	1	INTENTIONALLY LEFT BLANK
TJC-28	1	RATE CASE EXPENSE - NOT USED
TJC-29	1	INCOME TAXES
TJC-30	1	GROSS REVENUE CONVERSION FACTOR ("GRCF")
TJC-31	1	COST OF CAPITAL

RUCO RECOMMENDED REVENUE REQUIREMENT

Line No.	Description	[A] Company OCRB/FVRB Cost	[B] RUCO OCRB/FVRB Cost
1	Fair Value Rate Base	$ 5,355,381	$ 4,712,945
2	Adjusted Test Year Operating Income (Loss)	$ 320,976	$ 363,737
3	Current Rate Of Return (L2 / L1)	5.99%	7.72%
4	Required Operating Income (L5 X L1)	$ 460,616	$ 344,416
5	Required Rate Of Return On Fair Value Rate Base	8.60%	7.31%
6	Operating Income Deficiency (L4 - L2)	$ 139,640	$ (19,321)
7	Gross Revenue Conversion Factor (TJC-1, Pg 2)	1.6210	1.6210
8	Increase In Gross Revenue Requirement (L7 X L6)	$ 226,351	$ (31,318)
9	Adjusted Test Year Revenues	$ 1,478,323	$ 1,478,323
10	Proposed Annual Revenue (L8 + L9)	$ 1,704,674	$ 1,447,005
11	Required Percentage Increase In Revenue (L8 / L9)	15.31%	-2.12%
12	Rate Of Return On Common Equity	10.80%	9.17%

References:
Column [A]: Company Schedules A-1, B-1, C-1, and D-1
Column [B]: RUCO Schedule TJC-2, TJC-11 and TJC-31

RUCO GROSS REVENUE CONVERSION FACTOR ("GRCF")

LINE NO.	DESCRIPTION	[A]	[B]	[C]
	Calculation of Gross Revenue Conversion Factor:			
1	Revenue	100.0000%		
2	Uncollecible Factor	0.0000%		
3	Revenues (L1 - L2)	100.0000%		
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	38.3081%		
5	Subtotal (L3 - L4)	61.6919%		
6	**Revenue Conversion Factor (L1 / L5)**	1.620957		
	Calculation of Uncollecttible Factor:			
7	Unity	100.0000%		
8	Combined Federal and State Tax Rate (Line 17)	37.2340%		
9	One Minus Combined Income Tax Rate (L7 - L8)	62.7660%		
10	Uncollectible Rate	0.0000%		
11	Uncollectible Factor (L9 * L10)		0.0000%	
	Calculation of Effective Tax Rate:			
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%		
13	Arizona State Income Tax Rate	4.9000%		
14	Federal Taxable Income (L12 - L13)	95.1000%		
15	Applicable Federal Income Tax Rate (Col. [C], L53)	34.0000%		
16	Effective Federal Income Tax Rate (L14 x L15)	32.3340%		
17	Combined Federal and State Income Tax Rate (L13 + L16)		37.2340%	
	Calculation of Effective Property Tax Factor			
18	Unity	100.0000%		
19	Combined Federal and State Income Tax Rate (Col. [B], L17)	37.2340%		
20	One Minus Combined Income Tax Rate (L18-L19)	62.7660%		
21	Property Tax Factor (Sch. TJC-9, Col. [B], L24)	1.7112%		
22	Effective Property Tax Factor (L20 x L21)		1.0741%	
23	Combined Federal and State Income Tax and Property Tax Rate (Col. [B], L17 + L22)			38.3081%

24	Required Operating Income (Sch. TJC-1, Col. [B] Line 4)	$ 344,416	
25	Adjusted Test Year Operating Income (Loss) (Sch. TJC-1, Col. [B], L2)	363,737	
26	Required Increase in Operating Income (L24 - L25)		$ (19,321)
27	Income Taxes on Recommended Revenue (Col. [C], L52)	$ 179,444	
28	Income Taxes on Test Year Revenue (Col. [A], L52)	190,905	
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		(11,461)
30	Recommended Revenue Requirement (Sch. TJC-1, Col. [B], Line 10)	$ 1,447,005	
31	Uncollectible Rate (L10)	0.0000%	
32	Uncollectible Expense on Recommended Revenue (L30 x L31)	$ -	
33	Adjusted Test Year Uncollectible Expense (Sch. TJC-6, Col. [C], L32)	$ -	
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32 - L33)		-
35	Property Tax with Recommended Revenue (Sch. TJC-9, Col. [B], L19)	$ 75,354	
36	Property Tax on Test Year Revenue (Sch. TJC-9, Col. [B], L20)	75,890	
37	Increase in Property Tax Due to Increase in Revenue (L35 - 36)		(536)
38	Total Required Increase in Revenue (Col. [B], L26 + L29 + L34 + L37)		$ (31,318)

		Test Year	Revenue Increase/(Decrease)	RUCO Recommended
	Calculation of Income Tax:			
39	Revenue (Sch. TJC-1, Col. [B], Line 9 & Sch. TJC-1, Col. [B], L10)	$ 1,478,323	$ (31,318)	$ 1,447,005
40	Operating Expenses Excluding Income Taxes	923,681		923,145
41	Synchronized Interest (Col. [C], L57)	41,925		41,925
42	Arizona Taxable Income (L39 - L40 - L41)	$ 512,717		$ 481,935
43	Arizona State Income Tax Rate	4.9000%		4.9000%
44	Arizona Income Tax (L42 x L43)	$ 25,123		$ 23,615
45	Federal Taxable Income (L42 - L44)	$ 487,594		$ 458,320
46	Federal Tax on First Income Bracket ($1 - $50,000) @ 15%	$ 7,500		$ 7,500
47	Federal Tax on Second Income Bracket ($51,001 - $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%	$ 51,882		$ 41,929
51	Total Federal Income Tax	$ 165,782		$ 155,829
52	Combined Federal and State Income Tax (L44 + L51)	$ 190,905		$ 179,444

53 Applicable Federal Income Tax Rate [Col. [C], L46 - Col. [A], L46] / [Col [C], L40 - Col. [A], L40] 34.0000%

54	**Synchronized Interest Calculation:**	
55	Rate Base	$ 4,712,945
56	x Weighted Average Cost of Debt	0.8896%
57	Synchronized Interest	$ 41,925

RUCO RATE BASE SUMMARY

Line No.	Description	[A] Company As Filed OCRB/FVRB	[B] RUCO Recommended Adjustments	[C] RUCO As Adjusted OCRB/FVRB
1	Gross Utility Plant In Service	$ 14,636,654	$ (616,175)	$ 14,020,478
2	Accumulated Depreciation	(5,903,755)	(2,184)	(5,905,938)
3	Net Utility Plant In Service (L1 + L2)	$ 8,732,899	$ (618,359)	$ 8,114,540
	Less:			
4	Advances In Aid Of Construction ("AIAC")	$ (529,379)	$ -	$ (529,379)
5	Contribution In Aid Of Construction ("CIAC")	(5,112,247)	-	(5,112,247)
6	Accumulated Amortization of CIAC	2,935,215	-	2,935,215
7	Net CIAC (L5 + L6)	$ (2,177,032)	$ -	$ (2,177,032)
8	Customer Meter Deposits	$ -	$ -	$ -
9	Customer Security Deposits	-	-	-
10	Gross Regulatory Liability	-	-	-
11	Accumulated Amortization	-	-	-
12	Net Regulatory Liability	$ -	$ -	$ -
13	Accumulated Deferred Income Taxes ("ADIT")	$ (683,150)	$ 99,899	$ (583,251)
	Plus:			
14	Unamortized Finance Charges	-	-	-
15	Prepayments	743	-	743
16	Materials & Supplies	-	-	-
17	Cash Working Capital	11,300	(123,976)	(112,676)
18	TOTAL RATE BASE (Sum L's 3, 4, 7, 8, 9, 12 Thru 17)	$ 5,355,381	$ (642,436)	$ 4,712,945

References:

Column [A]: Company Schedule B-1
Column [B]: TJC-3, Columns [B] Thru [K]
Column [C]: Column [A] + Column [B]

Liberty Utilities (Rio Rico Sewer) Corp.
Docket No. W-02465A-15-0367 et al.
Test Year Ended December 31, 2014

RATE BASE ADJUSTMENTS

Line No.	Description	[A] Company As Filed OCRB/FVRB	[B] Adjust No. 1 UPIS & A/D Adjustments	[C] Adjust No. 2 Intentionally Left Blank	[D] Adjust No. 3 Intentionally Left Blank	[E] Adjust No. 4 Intentionally Left Blank	[F] Adjust No. 5 Intentionally Left Blank	[G] Adjust No. 6 Intentionally Left Blank	[H] Adjust No. 7 Intentionally Left Blank	[I] Adjust No. 8 Intentionally Left Blank	[J] Adjust No. 9 ADIT Adjustment	[K] Adjust No. 10 Working Capital Adjustments	[L] Total RUCO Adjustments	[M] RUCO Recommended OCRB/FVRB
1	Gross Utility Plant In Service	$ 14,636,654	$ (616,175)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (616,175)	$ 14,020,478
2	Accumulated Depreciation	(5,903,755)	(2,184)	-	-	-	-	-	-	-	-	-	(2,184)	(5,905,938)
3	Net Utility Plant In Service (L1 + L2)	$ 8,732,899	$ (618,359)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (618,359)	$ 8,114,540
	Less:													
4	Advances In Aid Of Construction ("AIAC")	$ (529,379)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (529,379)
5	Contribution In Aid Of Construction ("CIAC")	(5,112,247)	-	-	-	-	-	-	-	-	-	-	-	(5,112,247)
6	Accumulated Amortization of CIAC	2,935,215	-	-	-	-	-	-	-	-	-	-	-	2,935,215
7	Net CIAC (L5 + L6)	$ (2,177,032)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (2,177,032)
8	Customer Meter Deposits	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	Customer Security Deposits	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Gross Regulatory Liability	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Accumulated Amortization	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Net Regulatory Liability	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	Accumulated Deferred Income Taxes ("ADIT")	$ (683,150)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 99,899	$ -	$ 99,899	$ (583,251)
	Plus:													
14	Unamortized Finance Charges	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Prepayments	743	-	-	-	-	-	-	-	-	-	-	-	743
16	Materials & Supplies	-	-	-	-	-	-	-	-	-	-	-	-	-
17	Cash Working Capital	11,300	-	-	-	-	-	-	-	-	-	(123,976)	(123,976)	(112,676)
18	TOTAL RATE BASE (Sum L's 3, 4, 7, 8, 9, 12 Thru 17)	$ 5,355,381	$ (618,359)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 99,899	$ (123,976)	$ (642,436)	$ 4,712,945

RUCO Adjustments:

Adjustment No. 1: Summation of RUCO recommended Utility Plant in Service and Accumulated Depreciation Adjustments No. (a), (b), (c), and (d) - See RUCO Rate Base Adjustment No. 1 on Schedules TJC-4 on pages 1 & 2, Column [J] at line 42;
Adjustment No. 2: Intentionally Left Blank;
Adjustment No. 3: Intentionally Left Blank;
Adjustment No. 4: Intentionally Left Blank;
Adjustment No. 5: Intentionally Left Blank;
Adjustment No. 6: Intentionally Left Blank;
Adjustment No. 7: Intentionally Left Blank;
Adjustment No. 8: Intentionally Left Blank;
Adjustment No. 9: RUCO Recommended 2014 TY End Accumulated Deferred Income Tax ("ADIT") Balance After RUCO Recommended Rate Base Adjustments - See RUCO Schedule TJC-9 ADIT on page 1 of 2 at line 14;
Adjustment No. 10: RUCO Recommended Allowance for Working Capital - See RUCO Schedule TJC-10 on page 1 of 1 at line 27;

References:

Column [A]: Company Schedule B-1
Column [B] Thru Column [K]: RUCO Recommended Rate Base Adjustments
Column [L]: Sum of RUCO Recommended Rate Base Adjustments of Columns [B] through [K]
Column [M]: Column [A] + Column [L]

SUMMARY OF UTILITY PLANT IN SERVICE (UPIS) ADJUSTMENTS
UTILITY PLANT IN SERVICE (UPIS) RATE BASE ADJUSTMENT #1

Line No.	NARUC Account No.	Description	Vintage Year	[A] Company Adjusted Plant in Service As Filed	[B] RUCO Adjustment (a) UPIS & A/D Reconstruction	[C] RUCO Adjustment (b) True-Up PTY Plant Per RUCO DR 2.10	[D] RUCO Adjustment (c) PTY Plant Adjustment	[E] RUCO Adjustment (d) Corporate Plant Adjustment	[F] RUCO Adjustment (e) Intentionally Left Blank	[G] RUCO Adjustment (f) Intentionally Left Blank	[H] RUCO Adjustment (g) Intentionally Left Blank	[I] RUCO Adjustment (h) Intentionally Left Blank	[J] RUCO Total UPIS Adjustments	[K] RUCO Recommended Plant in Service
		Direct Plant:												
1	351	Organization		$ 5,785	$ -		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,785
2	352	Franchise		417	-		-	-	-	-	-	-	-	417
3	353	Land & Land Rights		7,545	-		-	-	-	-	-	-	-	7,545
4	354	Structures & Improvements		487,891	-		(61,948)	-	-	-	-	-	(203,874)	284,017
5	355	Power Generation Equipment		-	-		-	-	-	-	-	-	-	-
6	360	Collection Sewers - Forced		636,023	-		-	-	-	-	-	-	-	636,023
7	361	Collection Sewers - Gravity		6,699,939	-		(22,276)	-	-	-	-	-	(22,276)	6,677,662
8	362	Special Collecting Structures		-	-		-	-	-	-	-	-	-	-
9	363	Customer Services		1,286,513	-		(6,504)	-	-	-	-	-	(5,654)	1,280,859
10	364	Flow Measuring Devices		65,412	-		-	-	-	-	-	-	-	65,412
11	366	Reuse Services		-	-		-	-	-	-	-	-	-	-
12	367	Reuse Meters And Installation		-	-		-	-	-	-	-	-	-	-
13	370	Receiving Wells		867,120	-		-	-	-	-	-	-	-	867,120
14	371	Effluent Pumping Equipment		751,817	-		(19,846)	-	-	-	-	-	(304,386)	447,430
15	374	Reuse Distribution Reservoirs		-	-		-	-	-	-	-	-	-	-
16	375	Reuse Trans. and Dist. System		-	-		-	-	-	-	-	-	-	-
17	380	Treatment & Disposal Equipment		982,394	-		-	-	-	-	-	-	-	982,394
18	381	Plant Sewers		15,362	-		-	-	-	-	-	-	-	15,362
19	382	Outfall Sewer Lines		-	-		-	-	-	-	-	-	-	-
20	389	Other Sewer Plant & Misc. Equipment		63,376	-		-	-	-	-	-	-	-	63,376
21	390	Office Furniture & Equipment		142,738	-		-	-	-	-	-	-	-	142,738
22	390.1	Computers and Software		4,025	-		-	-	-	-	-	-	-	4,025
23	391	Transportation Equipment		117	-		-	-	-	-	-	-	-	117
24	392	Stores Equipment		-	-		-	-	-	-	-	-	-	-
25	393	Tools, Shop And Garage Equipment		19,957	-		(11,399)	-	-	-	-	-	(11,399)	8,558
26	394	Laboratory Equipment		6,152	-		-	-	-	-	-	-	-	6,152
27	395	Power Operated Equipment		29,947	-		-	-	-	-	-	-	-	29,947
28	396	Communication Equipment		6,057	-		-	-	-	-	-	-	-	6,057
29	397	Miscellaneous Equip.		-	-		-	-	-	-	-	-	-	-
30	398	Other Tangible Plant		3,913	-		-	-	-	-	-	-	-	3,913
31	398.1	Nogales WWTP		2,431,717	-		-	-	-	-	-	-	-	2,431,717
32		To Tie-Back to UPIS & A/D from Prior Decision		-	(600)		-	-	-	-	-	-	(600)	(600)
33		**Total Direct Plant**		$ 14,514,216	$ (600)		$ (121,973)	$ -	$ -	$ -	$ -	$ -	$ (548,190)	$ 13,966,027
		Allocated Corporate Plant:												
34	903	Land & Land Rights		$ 5,880	$ -	$ -	$ -	$ (5,880)	$ -	$ -	$ -	$ -	$ (5,880)	$ -
35	904	Structures and Improvements		63,809	-	-	-	(52,894)	-	-	-	-	(52,894)	10,915
36	940	Office Furniture and Fixtures		6,939	-	-	-	-	-	-	-	-	-	6,939
37	940.1	Computers and Software		45,811	-	-	-	(9,212)	-	-	-	-	(9,212)	36,599
38		**Total Allocated Corporate Plant**		$ 122,438	$ -	$ -	$ -	$ (67,986)	$ -	$ -	$ -	$ -	$ (67,986)	$ 54,452
39		**Plant Not Accounted For**		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
40		**Total Utility Plant in Service (UPIS)**		$ 14,636,654	$ (600)		$ (121,973)	$ (67,986)	$ -	$ -	$ -	$ -	$ (616,175)	$ 14,020,479

RUCO Adjustments:

Adjustment No. (a): Reconstruct Utility Plant in Service ("UPIS") & Accum. Depreciation ("A/D") Balances as Filed by Company - See RUCO UPIS and A/D Adjustment No. (a) on Schedule TJC-4(a) 2009 thru 2014 TY Plant Schedules on page 7 at line 37;
Adjustment No. (b): True-Up PTY Plant per Company Response to RUCO DR 2.10 - See RUCO Schedule TJC-4(b) on pages 1 and 2, Column [B], at line 35;
Adjustment No. (c): Remove PTY Plant outside of 6-Months TY End for both UPIS & A/D - See Schedule TJC-4(c);
Adjustment No. (d): Remove Allocated APUC Corporate Plant - See RUCO Schedule TJC-4(d) on pages 1 and 2 at line 12;
Adjustment No. (e): Intentionally Left Blank;
Adjustment No. (f): Intentionally Left Blank;
Adjustment No. (g): Intentionally Left Blank;
Adjustment No. (h): Intentionally Left Blank;

References:

Column [A]: Company Schedule B-2 Adjusted Test Year as Filed
Column [B] Through [I]: RUCO Recommended UPIS Adjustments
Column [J]: Sum of Columns [B] Through [I] - RUCO Sum of Total Recommended UPIS Adjustments
Column [K]: Column [A] + [J]

SUMMARY OF ACCUMULATED DEPRECIATION (A/D) ADJUSTMENTS
UPIS ACCUMULATED DEPRECIATION RATE BASE ADJUSTMENT #1

Line No.	NARUC Account No.	Description	Vintage Year	[A] Company Adjusted Accum. Depre. As Filed	[B] RUCO Adjustment (a) UPIS & A/D Reconstruction	[C] RUCO Adjustment (b) True-Up PTY Plant Per RUCO DR 2.10	[D] RUCO Adjustment (c) PTY Plant Adjustment	[E] RUCO Adjustment (d) Corporate Plant Adjustment	[F] RUCO Adjustment (e) Intentionally Left Blank	[G] RUCO Adjustment (f) Intentionally Left Blank	[H] RUCO Adjustment (g) Intentionally Left Blank	[I] RUCO Adjustment (h) Intentionally Left Blank	[J] RUCO Total Accum. Depre. Adjustments	[K] RUCO Recommended Accum. Depre.
		Direct Plant:												
1	351	Organization		$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	352	Franchise		-	-		-	-	-	-	-	-	-	-
3	353	Land & Land Rights		-	-		-	-	-	-	-	-	-	-
4	354	Structures & Improvements		46,444	3,395		(1,031)	-	-	-	-	-	0	46,444
5	355	Power Generation Equipment		-	-		-	-	-	-	-	-	-	-
6	360	Collection Sewers - Forced		37,951	-		-	-	-	-	-	-	-	37,951
7	361	Collection Sewers - Gravity		2,964,500	223		(223)	-	-	-	-	-	0	2,964,500
8	362	Special Collecting Structures		-	-		-	-	-	-	-	-	-	-
9	363	Customer Services		738,949	57		(65)	-	-	-	-	-	(0)	738,949
10	364	Flow Measuring Devices		65,412	-		-	-	-	-	-	-	-	65,412
11	366	Reuse Services		-	-		-	-	-	-	-	-	-	-
12	367	Reuse Meters And Installation		-	-		-	-	-	-	-	-	-	-
13	370	Receiving Wells		411,961	-		-	-	-	-	-	-	-	411,961
14	371	Effluent Pumping Equipment		62,965	19,024		(1,240)	-	-	-	-	-	(0)	62,965
15	374	Reuse Distribution Reservoirs		-	-		-	-	-	-	-	-	-	-
16	375	Reuse Trans. and Dist. System		-	-		-	-	-	-	-	-	-	-
17	380	Treatment & Disposal Equipment		954,080	-		-	-	-	-	-	-	-	954,080
18	381	Plant Sewers		2,198	-		-	-	-	-	-	-	-	2,198
19	382	Outfall Sewer Lines		-	-		-	-	-	-	-	-	-	-
20	389	Other Sewer Plant & Misc. Equipment		57,917	(540)		-	-	-	-	-	-	(540)	57,377
21	390	Office Furniture & Equipment		55,654	-		-	-	-	-	-	-	-	55,654
22	390.1	Computers and Software		4,025	-		-	-	-	-	-	-	-	4,025
23	391	Transportation Equipment		76	-		-	-	-	-	-	-	-	76
24	392	Stores Equipment		-	-		-	-	-	-	-	-	-	-
25	393	Tools, Shop And Garage Equipment		5,471	285		(285)	-	-	-	-	-	-	5,471
26	394	Laboratory Equipment		308	-		-	-	-	-	-	-	-	308
27	395	Power Operated Equipment		-	749		-	-	-	-	-	-	749	749
28	396	Communication Equipment		6,057	(115)		-	-	-	-	-	-	(115)	5,942
29	397	Miscellaneous Equip.		-	-		-	-	-	-	-	-	-	-
30	398	Other Tangible Plant		3,913	(0)		-	-	-	-	-	-	(0)	3,913
31	398.1	Nogales WWTP		464,515	-		-	-	-	-	-	-	-	464,515
32		To Tie-Back to UPIS & A/D from Prior Decision		-	-		-	-	-	-	-	-	-	-
33		**Total Direct Plant**		$ 5,882,397	$ 23,077		$ (2,845)	$ -	$ -	$ -	$ -	$ -	$ 94	$ 5,882,491
		Allocated Corporate Plant:												
34	903	Land & Land Rights		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
35	904	Structures and Improvements		3,375	-	-	-	(1,356)	-	-	-	-	(1,356)	2,019
36	940	Office Furniture and Fixtures		580	-	-	-	-	-	-	-	-	-	580
37	940.1	Computers and Software		17,403	-	-	-	(921)	-	-	-	-	(921)	16,482
38		**Total Allocated Corporate Plant**		$ 21,358	$ -	$ -	$ -	$ (2,277)	$ -	$ -	$ -	$ -	$ (2,277)	$ 19,080
39		**Accumulated Depreciation Not Accounted For**		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
40		**Total Utility Plant in Service (UPIS)**		$ 5,903,755	$ 23,077		$ (2,845)	$ (2,277)	$ -	$ -	$ -	$ -	$ (2,184)	$ 5,901,571

RUCO Adjustments:

Adjustment No. (a): Reconstruct Utility Plant in Service ("UPIS") & Accum. Depreciation ("A/D") Balances as Filed by Company - See RUCO UPIS and A/D Adjustment No. (a) on Schedule TJC-4(a) 2009 thru 2014 TY Plant Schedules on page 7 at line 37;
Adjustment No. (b): True-Up PTY Plant per Company Response to RUCO DR 2.10 - See RUCO Schedule TJC-4(b) on pages 1 and 2, Column [B], at line 35;
Adjustment No. (c): Remove PTY Plant outside of 6-Months TY End for both UPIS & A/D - See Schedule TJC-4(c);
Adjustment No. (d): Remove Allocated APUC Corporate Plant - See RUCO Schedule TJC-4(d) on pages 1 and 2 at line 12;
Adjustment No. (e): Intentionally Left Blank;
Adjustment No. (f): Intentionally Left Blank;
Adjustment No. (g): Intentionally Left Blank;
Adjustment No. (h): Intentionally Left Blank;

References:

Column [A]: Company Schedule B-2 Adjusted Test Year as Filed
Column [B] Through [I]: RUCO Recommended UPIS Adjustments
Column [J]: Sum of Columns [B] Through [I] - RUCO Sum of Total Recommended UPIS Adjustments
Column [K]: Column [A] + [J]

ERVICE & ACCUM. DEPRE.
ONSTRUCTION SCHEDULE
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UTILITY PLANT IN SERVICE & ACCUM. DEPRE.
DIRECT PLANT RECONSTRUCTION SCHEDULE
UTILITY PLANT IN SERVICE (UPIS) AND ACCUMULATED DEPRECIATION (AD) ADJUSTMENT NO. (a)

						Per Decision 73996			2012 (10-Months - March 1 through December 31, 2012)									
Line No.	NARUC Account No.	Description	Vintage Year	Previously Allowed Deprec. Rate	Allowed Deprec. Rate	Company Plant at 2/29/2012	Accum. Deprec. At 2/29/2012	Company Net Plant at 2/29/2012	Plant Additions (Per Books)	Plant Adjustments	Affiliate Profit Adjustment	Adjusted Plant Additions	Plant Retirements	Salvage A/D Only	10-Months Depreciation (Calculated)	Plant Balance	Accum. Deprec.	Net Plant
	Direct Plant:																	
1	351	Organization			0.00%	$ 5,785	$ -	$ 5,785	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,785	$ -	$ 5,785.00
2	352	Franchise			0.00%	417	-	417	-	-	-	-	-	-	-	417	-	417
3	353	Land & Land Rights			0.00%	7,545	-	7,545	-	-	-	-	-	-	-	7,545	-	7,545
4	354	Structures & Improvements			3.33%	150,294	28,911	121,383	10,934	-	(118)	10,816	-	-	4,321	161,110	33,232	127,878
5	355	Power Generation Equipment			5.00%	-	-	-	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Forced			2.00%	636,023	1,910	634,113	-	-	-	-	-	-	10,600	636,023	12,511	623,513
7	361	Collection Sewers - Gravity			2.00%	5,991,239	2,596,792	3,394,447	28	407,724	(122)	407,630	-	-	103,251	6,398,869	2,700,043	3,698,826
8	362	Special Collecting Structures			2.00%	-	-	-	-	-	-	-	-	-	-	-	-	-
9	363	Customer Services			2.00%	1,204,113	669,898	534,214	8,015	(438)	(1)	7,577	(0)	-	20,132	1,211,690	690,030	521,659
10	364	Flow Measuring Devices			10.00%	66,339	51,174	15,165	-	(928)	-	(928)	-	-	5,490	65,412	56,664	8,748
11	366	Reuse Services			2.00%	-	-	-	-	-	-	-	-	-	-	-	-	-
12	367	Reuse Meters And Installation			8.33%	-	-	-	-	-	-	-	-	-	-	-	-	-
13	370	Receiving Wells			3.33%	867,120	330,148	536,972	-	-	-	-	-	-	24,063	867,120	354,210	512,910
14	371	Effluent Pumping Equipment			12.50%	208,760	(49,566)	258,326	105,564	-	(425)	105,139	(190)	-	27,212	313,709	(22,544)	336,253
15	374	Reuse Distribution Reservoirs			2.50%	-	-	-	-	-	-	-	-	-	-	-	-	-
16	375	Reuse Trans. and Dist. System			2.50%	-	-	-	-	-	-	-	-	-	-	-	-	-
17	380	Treatment & Disposal Equipment			5.00%	975,033	815,247	159,786	5,120	2,664	(33)	7,751	(195)	-	40,784	982,589	855,836	126,753
18	381	Plant Sewers			5.00%	13,690	57	13,633	1,672	-	-	1,672	-	-	605	15,362	662	14,699
19	382	Outfall Sewer Lines			3.33%	-	-	-	-	-	-	-	-	-	-	-	-	-
20	389	Other Sewer Plant & Misc. Equipment			6.67%	64,928	64,650	278	-	(7,758)	-	(7,758)	-	-	62	57,170	64,712	(7,542)
21	390	Office Furniture & Equipment			6.67%	116,937	31,387	85,550	-	(6,483)	-	(6,483)	-	-	6,320	110,454	37,707	72,747
22	390.1	Computers and Software			20.00%	4,025	4,025	-	-	-	-	-	-	-	-	4,025	4,025	-
23	391	Transportation Equipment			20.00%	117	10	108	-	-	-	-	-	-	20	117	29	88
24	392	Stores Equipment			4.00%	-	-	-	-	-	-	-	-	-	-	-	-	-
25	393	Tools, Shop And Garage Equipment			5.00%	5,139	4,936	203	2,513	-	-	2,513	-	-	256	7,652	5,191	2,461
26	394	Laboratory Equipment			10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-
27	395	Power Operated Equipment			5.00%	-	-	-	-	-	-	-	-	-	-	-	-	-
28	396	Communication Equipment			10.00%	5,936	5,936	-	-	-	-	-	-	-	-	5,936	5,936	-
29	397	Miscellaneous Equip.			10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-
30	398	Other Tangible Plant			10.00%	3,913	3,913	(0)	-	-	-	-	-	-	(0)	3,913	3,913	-
31	398.1	Nogales WWTP			4.72%	2,424,604	139,454	2,285,150	7,113	-	-	7,113	-	-	95,508	2,431,717	234,961	2,196,756
32		Decision No. 73996 Hearing Adjustment			0.00%	(600)	-	(600)	-	-	-	-	-	-	-	(600)	-	(600)
33		**RUCO Total Direct UPIS & Accum. Depre.**				$ 12,751,357	$ 4,698,882	$ 8,052,475	$ 140,958	$ 394,781	$ (698)	$ 535,042	$ (385)	$ -	$ 338,622	$ 13,286,014	$ 5,037,119	$ 8,248,895
34		Company As Filed				$ 12,751,957	$ 4,698,882	$ 7,807,462	$ 140,958	$ 394,781	$ (698)	$ 535,042	$ (385)	$ -	$ 331,585	$ 13,286,614	$ 5,030,083	$ 8,256,532
35		RUCO UPIS & Accum. Depre. Adjustments				$ (600)	$ -	$ 245,013	$ -	$ -	$ -	$ -	$ -	$ -	$ 7,036	$ (600)	$ 7,036	$ (7,636)

ERVICE & ACCUM. DEPRE.
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UTILITY PLANT IN SERVICE & ACCUM. DEPRE.
DIRECT PLANT RECONSTRUCTION SCHEDULE
UTILITY PLANT IN SERVICE (UPIS) AND ACCUMULATED DEPRECIATION (AD) ADJUSTMENT NO. (a)

Line No.	NARUC Account No.	Description	Vintage Year	Previously Allowed Deprec. Rate	Allowed Deprec. Rate	2013 Plant Additions (Per Books)	Plant Adjustments	Affiliate Profit Adjustments	Adjusted Plant Additions	Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.	Net Plant
		Direct Plant:													
1	351	Organization			0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,785	$ -	$ 5,785
2	352	Franchise			0.00%	-	-	-	-	-	-	-	417	-	417
3	353	Land & Land Rights			0.00%	-	-	-	-	-	-	-	7,545	-	7,545
4	354	Structures & Improvements			3.33%	13,094	-	-	13,094	-	-	5,583	174,204	38,815	135,390
5	355	Power Generation Equipment			5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Forced			2.00%	-	-	-	-	-	-	12,720	636,023	25,231	610,792
7	361	Collection Sewers - Gravity			2.00%	285,732	-	-	285,732	-	-	130,835	6,684,601	2,830,877	3,853,724
8	362	Special Collecting Structures			2.00%	-	-	-	-	-	-	-	-	-	-
9	363	Customer Services			2.00%	65,137	-	-	65,137	(307)	-	24,882	1,276,520	714,605	561,915
10	364	Flow Measuring Devices			10.00%	-	-	-	-	-	-	6,541	65,412	63,205	2,207
11	366	Reuse Services			2.00%	-	-	-	-	-	-	-	-	-	-
12	367	Reuse Meters And Installation			8.33%	-	-	-	-	-	-	-	-	-	-
13	370	Receiving Wells			3.33%	-	-	-	-	-	-	28,875	867,120	383,086	484,034
14	371	Effluent Pumping Equipment			12.50%	62,376	-	(50)	62,326	(8,059)	-	42,605	367,975	12,002	355,974
15	374	Reuse Distribution Reservoirs			2.50%	-	-	-	-	-	-	-	-	-	-
16	375	Reuse Trans. and Dist. System			2.50%	-	-	-	-	-	-	-	-	-	-
17	380	Treatment & Disposal Equipment			5.00%	-	(195)	-	(195)	-	-	49,125	982,394	904,960	77,434
18	381	Plant Sewers			5.00%	-	-	-	-	-	-	768	15,362	1,430	13,931
19	382	Outfall Sewer Lines			3.33%	-	-	-	-	-	-	-	-	-	-
20	389	Other Sewer Plant & Misc. Equipment			6.67%	-	-	-	-	-	-	(7,542)	57,170	57,170	-
21	390	Office Furniture & Equipment			6.67%	32,020	-	-	32,020	-	-	8,435	142,474	46,142	96,332
22	390.1	Computers and Software			20.00%	-	-	-	-	-	-	-	4,025	4,025	-
23	391	Transportation Equipment			20.00%	-	-	-	-	-	-	23	117	53	65
24	392	Stores Equipment			4.00%	-	-	-	-	-	-	-	-	-	-
25	393	Tools, Shop And Garage Equipment			5.00%	123	-	-	123	-	-	129	7,775	5,320	2,455
26	394	Laboratory Equipment			10.00%	-	-	-	-	-	-	-	-	-	-
27	395	Power Operated Equipment			5.00%	-	-	-	-	-	-	-	-	-	-
28	396	Communication Equipment			10.00%	-	-	-	-	-	-	-	5,936	5,936	-
29	397	Miscellaneous Equip.			10.00%	-	-	-	-	-	-	-	-	-	-
30	398	Other Tangible Plant			10.00%	-	-	-	-	-	-	-	3,913	3,913	-
31	398.1	Nogales WWTP			4.72%	-	-	-	-	-	-	114,777	2,431,717	349,738	2,081,979
32		Decision No. 73996 Hearing Adjustment			0.00%	-	-	-	-	-	-	-	(600)	-	(600)
33		**RUCO Total Direct UPIS & Accum. Depre.**				$ 458,483	$ (195)	$ (50)	$ 458,238	$ (8,366)	$ -	$ 417,757	$ 13,735,886	$ 5,446,509	$ 8,289,377
34		Company As Filed				$ 458,483	$ (195)	$ (50)	$ 458,238	$ (8,366)	$ -	$ 425,333	$ 13,736,486	$ 5,447,049	$ 8,289,437
35		RUCO UPIS & Accum. Depre. Adjustments				$ -	$ -	$ -	$ -	$ -	$ -	$ (7,576)	$ (600)	$ (540)	$ (60)

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UTILITY PLANT IN SERVICE & ACCUM. DEPRE.
DIRECT PLANT RECONSTRUCTION SCHEDULE
UTILITY PLANT IN SERVICE (UPIS) AND ACCUMULATED DEPRECIATION (AD) ADJUSTMENT NO. (a)

						2014									
Line No.	NARUC Account No.	Description	Vintage Year	Previously Allowed Deprec. Rate	Allowed Deprec. Rate	Plant Additions (Per Books)	Plant Adjustments	Affiliate Profit Adjustments	Adjusted Plant Additions	Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.	Net Plant
		Direct Plant:													
1	351	Organization			0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,785	$ -	$ 5,785
2	352	Franchise			0.00%	-	-	-	-	-	-	-	417	-	417
3	353	Land & Land Rights			0.00%	-	-	-	-	-	-	-	7,545	-	7,545
4	354	Structures & Improvements			3.33%	109,813	-	-	109,813	-	-	7,629	284,017	46,444	237,573
5	355	Power Generation Equipment			5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Forced			2.00%	-	-	-	-	-	-	12,720	636,023	37,951	598,072
7	361	Collection Sewers - Gravity			2.00%	19,867	(26,806)	-	(6,939)	-	-	133,623	6,677,662	2,964,500	3,713,162
8	362	Special Collecting Structures			2.00%	-	-	-	-	-	-	-	-	-	-
9	363	Customer Services			2.00%	5,569	-	-	5,569	(1,230)	-	25,574	1,280,859	738,949	541,910
10	364	Flow Measuring Devices			10.00%	-	-	-	-	-	-	2,207	65,412	65,412	-
11	366	Reuse Services			2.00%	-	-	-	-	-	-	-	-	-	-
12	367	Reuse Meters And Installation			8.33%	-	-	-	-	-	-	-	-	-	-
13	370	Receiving Wells			3.33%	-	-	-	-	-	-	28,875	867,120	411,961	455,159
14	371	Effluent Pumping Equipment			12.50%	79,455	-	-	79,455	-	-	50,963	447,430	62,965	384,466
15	374	Reuse Distribution Reservoirs			2.50%	-	-	-	-	-	-	-	-	-	-
16	375	Reuse Trans. and Dist. System			2.50%	-	-	-	-	-	-	-	-	-	-
17	380	Treatment & Disposal Equipment			5.00%	-	-	-	-	-	-	49,120	982,394	954,080	28,314
18	381	Plant Sewers			5.00%	-	-	-	-	-	-	768	15,362	2,198	13,163
19	382	Outfall Sewer Lines			3.33%	-	-	-	-	-	-	-	-	-	-
20	389	Other Sewer Plant & Misc. Equipment			6.67%	6,205	-	-	6,205	-	-	207	63,376	57,377	5,998
21	390	Office Furniture & Equipment			6.67%	264	-	-	264	-	-	9,512	142,738	55,654	87,084
22	390.1	Computers and Software			20.00%	-	-	-	-	-	-	-	4,025	4,025	-
23	391	Transportation Equipment			20.00%	-	-	-	-	-	-	23	117	76	41
24	392	Stores Equipment			4.00%	-	-	-	-	-	-	-	-	-	-
25	393	Tools, Shop And Garage Equipment			5.00%	783	-	-	783	-	-	151	8,558	5,471	3,087
26	394	Laboratory Equipment			10.00%	6,152	-	-	6,152	-	-	308	6,152	308	5,844
27	395	Power Operated Equipment			5.00%	-	-	-	-	-	-	-	-	-	-
28	396	Communication Equipment			10.00%	121	-	-	121	-	-	6	6,057	5,942	115
29	397	Miscellaneous Equip.			10.00%	-	-	-	-	-	-	-	-	-	-
30	398	Other Tangible Plant			10.00%	-	-	-	-	-	-	-	3,913	3,913	-
31	398.1	Nogales WWTP			4.72%	-	-	-	-	-	-	114,777	2,431,717	464,515	1,967,202
32		Decision No. 73996 Hearing Adjustment			0.00%	-	-	-	-	-	-	-	(600)	-	(600)
33		**RUCO Total Direct UPIS & Accum. Depre.**				$ 228,230	$ (26,806)	$ -	$ 201,423	$ (1,230)	$ -	$ 436,463	$ 13,936,079	$ 5,881,742	$ 8,054,337
34		Company As Filed				$ 228,230	$ (26,806)	$ -	$ 201,423	$ (1,230)	$ -	$ 436,578	$ 13,936,679	$ 5,882,397	$ 8,054,282
35		RUCO UPIS & Accum. Depre. Adjustments				$ -	$ -	$ -	$ -	$ -	$ -	$ (115)	$ (600)	$ (655)	$ 55

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UTILITY PLANT IN SERVICE & ACCUM. DEPRE.
DIRECT PLANT RECONSTRUCTION SCHEDULE
UTILITY PLANT IN SERVICE (UPIS) AND ACCUMULATED DEPRECIATION (AD) ADJUSTMENT NO. (a)

Line No.	NARUC Account No.	Description	Vintage Year	Previously Allowed Deprec. Rate	Allowed Deprec. Rate	2015 Post Test Year Plant Additions with Half-Year Convention for Depreciation: PTY Plant Additions	PTY Plant Adjustments	PTY Affiliate Profit Plant Adjustments	PTY Adjusted Plant Additions	PTY Plant Retirements	PTY Salvage A/D Only	PTY Depreciation (Calculated)	Including PTY Plant Balance	Including PTY Accum. Deprec.	Including PTY Net Plant
		Direct Plant:													
1	351	Organization			0.00%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,785	$ -	$ 5,785
2	352	Franchise			0.00%	-	-	-	-	-	-	-	417	-	417
3	353	Land & Land Rights			0.00%	-	-	-	-	-	-	-	7,545	-	7,545
4	354	Structures & Improvements			3.33%	203,874	-	-	203,874	-	-	3,395	487,891	49,838	438,053
5	355	Power Generation Equipment			5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Forced			2.00%	-	-	-	-	-	-	-	636,023	37,951	598,072
7	361	Collection Sewers - Gravity			2.00%	22,276	-	-	22,276	-	-	223	6,699,939	2,964,723	3,735,216
8	362	Special Collecting Structures			2.00%	-	-	-	-	-	-	-	-	-	-
9	363	Customer Services			2.00%	5,654	-	-	5,654	-	-	57	1,286,513	739,006	547,508
10	364	Flow Measuring Devices			10.00%	-	-	-	-	-	-	-	65,412	65,412	-
11	366	Reuse Services			2.00%	-	-	-	-	-	-	-	-	-	-
12	367	Reuse Meters And Installation			8.33%	-	-	-	-	-	-	-	-	-	-
13	370	Receiving Wells			3.33%	-	-	-	-	-	-	-	867,120	411,961	455,159
14	371	Effluent Pumping Equipment			12.50%	304,386	-	-	304,386	-	-	19,024	751,817	81,989	669,828
15	374	Reuse Distribution Reservoirs			2.50%	-	-	-	-	-	-	-	-	-	-
16	375	Reuse Trans. and Dist. System			2.50%	-	-	-	-	-	-	-	-	-	-
17	380	Treatment & Disposal Equipment			5.00%	-	-	-	-	-	-	-	982,394	954,080	28,314
18	381	Plant Sewers			5.00%	-	-	-	-	-	-	-	15,362	2,198	13,163
19	382	Outfall Sewer Lines			3.33%	-	-	-	-	-	-	-	-	-	-
20	389	Other Sewer Plant & Misc. Equipment			6.67%	-	-	-	-	-	-	-	63,376	57,377	5,998
21	390	Office Furniture & Equipment			6.67%	-	-	-	-	-	-	-	142,738	55,654	87,084
22	390.1	Computers and Software			20.00%	-	-	-	-	-	-	-	4,025	4,025	-
23	391	Transportation Equipment			20.00%	-	-	-	-	-	-	-	117	76	41
24	392	Stores Equipment			4.00%	-	-	-	-	-	-	-	-	-	-
25	393	Tools, Shop And Garage Equipment			5.00%	11,399	-	-	11,399	-	-	285	19,957	5,756	14,200
26	394	Laboratory Equipment			10.00%	-	-	-	-	-	-	-	6,152	308	5,844
27	395	Power Operated Equipment			5.00%	29,947	-	-	29,947	-	-	749	29,947	749	29,199
28	396	Communication Equipment			10.00%	-	-	-	-	-	-	-	6,057	5,942	115
29	397	Miscellaneous Equip.			10.00%	-	-	-	-	-	-	-	-	-	-
30	398	Other Tangible Plant			10.00%	-	-	-	-	-	-	-	3,913	3,913	-
31	398.1	Nogales WWTP			4.72%	-	-	-	-	-	-	-	2,431,717	464,515	1,967,202
32		Decision No. 73996 Hearing Adjustment			0.00%	-	-	-	-	-	-	-	(600)	-	(600)
33		**RUCO Total Direct UPIS & Accum. Depre.**				$ 577,537	$ -	$ -	$ 577,537	$ -	$ -	$ 23,732	$ 14,513,616	$ 5,905,474	$ 8,608,143
34		Company As Filed				$ 577,537	$ -	$ -	$ 577,537	$ -	$ -	$ -	$ 14,514,216	$ 5,882,397	$ 8,631,819
35		RUCO UPIS & Accum. Depre. Adjustments				$ -	$ -	$ -	$ -	$ -	$ -	$ 23,732	$ (600)	$ 23,077	$ (23,677)

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (a)
UTILITY PLANT IN SERVICE ("UPIS") RECONSTRUCTION ADJUSTMENT

Line No.	Acct. No.	Description	[A] Company UPIS As Filed	[B] RUCO UPIS Reconstruction Adjustments	[C] RUCO Recommended UPIS Balances
		Direct Plant:			
1	351	Organization	$ 5,785	$ -	$ 5,785
2	352	Franchise	417	-	417
3	353	Land & Land Rights	7,545	-	7,545
4	354	Structures & Improvements	487,891	-	487,891
5	355	Power Generation Equipment	-	-	-
6	360	Collection Sewers - Forced	636,023	-	636,023
7	361	Collection Sewers - Gravity	6,699,939	-	6,699,939
8	362	Special Collecting Structures	-	-	-
9	363	Customer Services	1,286,513	-	1,286,513
10	364	Flow Measuring Devices	65,412	-	65,412
11	366	Reuse Services	-	-	-
12	367	Reuse Meters And Installation	-	-	-
13	370	Receiving Wells	867,120	-	867,120
14	371	Effluent Pumping Equipment	751,817	-	751,817
15	374	Reuse Distribution Reservoirs	-	-	-
16	375	Reuse Trans. and Dist. System	-	-	-
17	380	Treatment & Disposal Equipment	982,394	-	982,394
18	381	Plant Sewers	15,362	-	15,362
19	382	Outfall Sewer Lines	-	-	-
20	389	Other Sewer Plant & Misc. Equipment	63,376	-	63,376
21	390	Office Furniture & Equipment	142,738	-	142,738
22	390.1	Computers and Software	4,025	-	4,025
23	391	Transportation Equipment	117	-	117
24	392	Stores Equipment	-	-	-
25	393	Tools, Shop And Garage Equipment	19,957	-	19,957
26	394	Laboratory Equipment	6,152	-	6,152
27	395	Power Operated Equipment	29,947	-	29,947
28	396	Communication Equipment	6,057	-	6,057
29	397	Miscellaneous Equip.	-	-	-
30	398	Other Tangible Plant	3,913	-	3,913
31	398.1	Nogales WWTP	2,431,717	-	2,431,717
32		Decision No. 73996 Hearing Adjustment	-	(600)	(600)
33		Totals	$ 14,514,216	$ (600)	$ 14,513,616
34		RUCO Adjustment		$ (600)	

References:
Per Company B-2 Plant Schedules

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (a)
UPIS ACCUMULATED DEPRECIATION RECONSTRUCTION ADJUSTMENT

Line No.	Acct. No.	Description	[A] Company As Filed	[B] RUCO Accum. Depre. Adjustments	[C] RUCO Recommended Accum. Depre. Balances
		Direct Plant Accumulated Depreciation:			
1	351	Organization	$ -	$ -	$ -
2	352	Franchise	-	-	-
3	353	Land & Land Rights	-	-	-
4	354	Structures & Improvements	46,444	3,395	49,838
5	355	Power Generation Equipment	-	-	-
6	360	Collection Sewers - Forced	37,951	-	37,951
7	361	Collection Sewers - Gravity	2,964,500	223	2,964,723
8	362	Special Collecting Structures	-	-	-
9	363	Customer Services	738,949	57	739,006
10	364	Flow Measuring Devices	65,412	-	65,412
11	366	Reuse Services	-	-	-
12	367	Reuse Meters And Installation	-	-	-
13	370	Receiving Wells	411,961	-	411,961
14	371	Effluent Pumping Equipment	62,965	19,024	81,989
15	374	Reuse Distribution Reservoirs	-	-	-
16	375	Reuse Trans. and Dist. System	-	-	-
17	380	Treatment & Disposal Equipment	954,080	-	954,080
18	381	Plant Sewers	2,198	-	2,198
19	382	Outfall Sewer Lines	-	-	-
20	389	Other Sewer Plant & Misc. Equipment	57,917	(540)	57,377
21	390	Office Furniture & Equipment	55,654	-	55,654
22	390.1	Computers and Software	4,025	-	4,025
23	391	Transportation Equipment	76	-	76
24	392	Stores Equipment	-	-	-
25	393	Tools, Shop And Garage Equipment	5,471	285	5,756
26	394	Laboratory Equipment	308	-	308
27	395	Power Operated Equipment	-	749	749
28	396	Communication Equipment	6,057	(115)	5,942
29	397	Miscellaneous Equip.	-	-	-
30	398	Other Tangible Plant	3,913	(0)	3,913
31	398.1	Nogales WWTP	464,515	-	464,515
32		Decision No. 73996 Hearing Adjustment		-	-
33		Totals	$ 5,882,397	$ 23,077	$ 5,905,474
34		RUCO Adjustment		$ 23,077	

References:
Per Company B-2 Plant Schedules

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (b)
TRUE-UP POST TEST YEAR PLANT PER RUCO DR 2.10

Line No.	Acct. No.	Description	[A] Company As Filed Amount	[B] Adjusted Per RUCO DR 2.10	[C] RUCO Adjusted Amount
		Post Test Year Plant:			
1	351	Organization	$ -		
2	352	Franchise	-		
3	353	Land & Land Rights	-		
4	354	Structures & Improvements	203,874		
5	355	Power Generation Equipment	-		
6	360	Collection Sewers - Forced	-		
7	361	Collection Sewers - Gravity	22,276		
8	362	Special Collecting Structures	-		
9	363	Customer Services	5,654		
10	364	Flow Measuring Devices	-		
11	366	Reuse Services	-		
12	367	Reuse Meters And Installation	-		
13	370	Receiving Wells	-		
14	371	Effluent Pumping Equipment	304,386		
15	374	Reuse Distribution Reservoirs	-		
16	375	Reuse Trans. and Dist. System	-		
17	380	Treatment & Disposal Equipment	-		
18	381	Plant Sewers	-		
19	382	Outfall Sewer Lines	-		
20	389	Other Sewer Plant & Misc. Equipment	-		
21	390	Office Furniture & Equipment	-		
22	390.1	Computers and Software	-		
23	391	Transportation Equipment	-		
24	392	Stores Equipment	-		
25	393	Tools, Shop And Garage Equipment	11,399		
26	394	Laboratory Equipment	-		
27	395	Power Operated Equipment	29,947		
28	396	Communication Equipment	-		
29	397	Miscellaneous Equip.	-		
30	398	Other Tangible Plant	-		
31	398.1	Nogales WWTP	-		
32		TOTALS	$ 577,537		
33		**RUCO Total Adjustment**		$ (425,616)	

References:
Per Company Response to RUCO DR #2.10 - See RUCO W/P

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (b)
TRUE-UP POST TEST YEAR PLANT ACCUM. DEPRECIATION PER RUCO DR 2.10

Line No.	Acct. No.	Description	[A] Depre. Rate	[B] RUCO Adjusted PTY Plant	[C] RUCO Adjusted Accum. Depre. Amount
		Post Test Year Plant Accumulated Depreciation:			
1	351	Organization	0.00%	[redacted]	[redacted]
2	352	Franchise	0.00%		
3	353	Land & Land Rights	0.00%		
4	354	Structures & Improvements	3.33%		
5	355	Power Generation Equipment	5.00%		
6	360	Collection Sewers - Forced	2.00%		
7	361	Collection Sewers - Gravity	2.00%		
8	362	Special Collecting Structures	2.00%		
9	363	Customer Services	2.00%		
10	364	Flow Measuring Devices	10.00%		
11	366	Reuse Services	2.00%		
12	367	Reuse Meters And Installation	8.33%		
13	370	Receiving Wells	3.33%		
14	371	Effluent Pumping Equipment	12.50%		
15	374	Reuse Distribution Reservoirs	2.50%		
16	375	Reuse Trans. and Dist. System	2.50%		
17	380	Treatment & Disposal Equipment	5.00%		
18	381	Plant Sewers	5.00%		
19	382	Outfall Sewer Lines	3.33%		
20	389	Other Sewer Plant & Misc. Equipment	6.67%		
21	390	Office Furniture & Equipment	6.67%		
22	390.1	Computers and Software	20.00%		
23	391	Transportation Equipment	20.00%		
24	392	Stores Equipment	4.00%		
25	393	Tools, Shop And Garage Equipment	5.00%		
26	394	Laboratory Equipment	10.00%		
27	395	Power Operated Equipment	5.00%		
28	396	Communication Equipment	10.00%		
29	397	Miscellaneous Equip.	10.00%		
30	398	Other Tangible Plant	10.00%		
31	398.1	Nogales WWTP	4.72%		
34		TOTALS		[redacted]	[redacted]
35		Company's Accumulated Depreciation on PTY Plant			-
36		**RUCO Total Adjustment**			[redacted]

References:
Per Company Response to RUCO DR #2.10 - See RUCO W/P

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (c)
POST TEST YEAR PLANT DISALLOWANCE EXCEEDING 6-MONTHS TEST YEAR END

Line No.	Acct. No.	Description	[A] RUCO PTY Plant True-Up to RUCO DR 2.10	[B] RUCO PTY Plant Adjustments	[C] RUCO Recommended PTY Plant
		Post Test Year Plant:			
1	351	Organization	[redacted]	[redacted]	$ -
2	352	Franchise			-
3	353	Land & Land Rights			-
4	354	Structures & Improvements			-
5	355	Power Generation Equipment			-
6	360	Collection Sewers - Forced			-
7	361	Collection Sewers - Gravity			-
8	362	Special Collecting Structures			-
9	363	Customer Services			-
10	364	Flow Measuring Devices			-
11	366	Reuse Services			-
12	367	Reuse Meters And Installation			-
13	370	Receiving Wells			-
14	371	Effluent Pumping Equipment			-
15	374	Reuse Distribution Reservoirs			-
16	375	Reuse Trans. and Dist. System			-
17	380	Treatment & Disposal Equipment			-
18	381	Plant Sewers			-
19	382	Outfall Sewer Lines			-
20	389	Other Sewer Plant & Misc. Equipment			-
21	390	Office Furniture & Equipment			-
22	390.1	Computers and Software			-
23	391	Transportation Equipment			-
24	392	Stores Equipment			-
25	393	Tools, Shop And Garage Equipment			-
26	394	Laboratory Equipment			-
27	395	Power Operated Equipment			-
28	396	Communication Equipment			29,947
29	397	Miscellaneous Equip.			-
30	398	Other Tangible Plant			-
31	398.1	Nogales WWTP			-
32		TOTALS	[redacted]	[redacted]	$ 29,947
33		**RUCO Total Adjustment**		[redacted]	

References:
Per Company Response to RUCO DR #2.10 - See RUCO W/P

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (c)
POST TEST YEAR PLANT ACCUMULATED DEPRECIATION DISALLOWANCE EXCEEDING 6-MONTHS TEST YEAR END

Line No.	Acct. No.	Description	[A] Depre. Rate	[B] RUCO Adjusted PTY Plant	[C] RUCO Disallowed PTY Plant	[D] RUCO Adjusted PTY Accum. Depre. Amount
		Post Test Year Plant Accumulated Depreciation:				
1	351	Organization	0.00%	[redacted]	[redacted]	$ -
2	352	Franchise	0.00%			-
3	353	Land & Land Rights	0.00%			-
4	354	Structures & Improvements	3.33%			(1,031)
5	355	Power Generation Equipment	5.00%			-
6	360	Collection Sewers - Forced	2.00%			-
7	361	Collection Sewers - Gravity	2.00%			(223)
8	362	Special Collecting Structures	2.00%			-
9	363	Customer Services	2.00%			(65)
10	364	Flow Measuring Devices	10.00%			-
11	366	Reuse Services	2.00%			-
12	367	Reuse Meters And Installation	8.33%			-
13	370	Receiving Wells	3.33%			-
14	371	Effluent Pumping Equipment	12.50%			(1,240)
15	374	Reuse Distribution Reservoirs	2.50%			-
16	375	Reuse Trans. and Dist. System	2.50%			-
17	380	Treatment & Disposal Equipment	5.00%			-
18	381	Plant Sewers	5.00%			-
19	382	Outfall Sewer Lines	3.33%			-
20	389	Other Sewer Plant & Misc. Equipment	6.67%			-
21	390	Office Furniture & Equipment	6.67%			-
22	390.1	Computers and Software	20.00%			-
23	391	Transportation Equipment	20.00%			-
24	392	Stores Equipment	4.00%			-
25	393	Tools, Shop And Garage Equipment	5.00%			(285)
26	394	Laboratory Equipment	10.00%			-
27	395	Power Operated Equipment	5.00%			-
28	396	Communication Equipment	10.00%			-
29	397	Miscellaneous Equip.	10.00%			-
30	398	Other Tangible Plant	10.00%			-
31	398.1	Nogales WWTP	4.72%			-
32		TOTALS		[redacted]	[redacted]	$ (2,845)
33		Company's Accumulated Depreciation on PTY Plant				-
34		**RUCO Total Adjustment**				$ (2,845)

References:
Per Company Response to RUCO DR #2.10 - See RUCO W/P and Schedule TJC-4(d) on page 1 of 2.

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (d)
CORPORATE PLANT ADJUSTMENT

Line No.	Acct. No.	Corporate Plant:	Amount
	Per Company:		
1	903	Land and Land Rights	$ 5,880
2	904	Structures and Improvements	52,894
3	940.1	Computers and Software	9,212
4		Total Per Company	$ 67,986
	Per RUCO:		
5	903	Land and Land Rights	$ -
6	904	Structures and Improvements	-
7	940.1	Computers and Software	-
8		Total Per RUCO	$ -
	RUCO Total Adjustments:		
9	903	Land and Land Rights	$ (5,880)
10	904	Structures and Improvements	(52,894)
11	940.1	Computers and Software	(9,212)
12		Total RUCO Adjustment	$ (67,986)

References:
Per Company Schedule B-2 on Page 3.3

UTILITY PLANT IN SERVICE ("UPIS") ADJUSTMENT NO. (d)
CORPORATE PLANT ACCUMULATED DEPRECIATION ADJUSTMENT

Line No.	Acct. No.	Corporate Plant Accumulated Depreciation:	Amount
	Per Company:		
1	903	Land and Land Rights	$ -
2	904	Structures and Improvements	1,356
3	940.1	Computers and Software	921
4		Total Per Company	$ 2,277
	Per RUCO:		
5	903	Land and Land Rights	$ -
6	904	Structures and Improvements	-
7	940.1	Computers and Software	-
8		Total Per RUCO	$ -
	RUCO Total Adjustments:		
9	903	Land and Land Rights	$ -
10	904	Structures and Improvements	(1,356)
11	940.1	Computers and Software	(921)
12		Total RUCO Adjustment	$ (2,277)

References:
Per Company Schedules B-2 on Page 3.3 and Schedule B-2 on Page 4.2

RATE BASE ADJUSTMENT NO. 5 - NOT USED
ADVANCES IN AID OF CONSTRUCTION ("AIAC")

Line No.	Description	Amount
	AIAC Adjustment #1:	
1	Company AIAC as Filed	$ -
2	RUCO Recommended AIAC	-
3	RUCO Recommended Increase/(Decrease) Adjustment #1	$ -
	AIAC Adjustment #2:	
4		$ -
5		-
6		-
7		-
8	RUCO Recommended Increase/(Decrease)	$ -
9	Company Total AIAC as Filed	$ -
10	RUCO Total Recommended AIAC Balance	-
11	RUCO Total Recommended AIAC Increase /(Decrease) Adjustments #1 & #2 Above	$ -

References:

RATE BASE ADJUSTMENT NO. 6 - NOT USED
CONTRIBUTIONS IN AID OF CONSTRUCTION (CIAC) & AMORTIZATIONS RECONSTRUCTION SCHEDULE

Line No.	Description	Amount
	Gross CIAC:	
1	Company Gross CIAC as Filed	$ -
2	RUCO Recommended Gross CIAC	-
3	RUCO Recommended Increase/(Decrease) Adjustment	$ -
	Accumulated Amoritization of CIAC:	
4	Company Accumulated Amortization of CIAC as Filed	$ -
5	RUCO Recommended Accumulated Amortization of CIAC	-
6	RUCO Recommended Increase/(Decrease) Adjustment	$ -
7	Company Net CIAC as Filed	$ -
8	RUCO Recommended Net CIAC	-
9	RUCO Net Increase/Decrease Adjustment	$ -

References:

RATE BASE ADJUSTMENT NO. 7
INTENTIONALLY LEFT BLANK

Line No.	Description	Amount
1		$ -
2		$ -
3		$ -

References:

RATE BASE ADJUSTMENT NO. 8
INTENTIONALLY LEFT BLANK

Line No.	Description	Amount

References:

RATE BASE ADJUSTMENT NO. 9
ACCUMULATED DEFERRED INCOME TAXES (ADIT)

Deferred Income Tax as of December 31, 2014

Line No.			Water & Sewer Adjusted Book Value	Water & Sewer Tax Value	Probability of Realization of Future Tax Benefit	Deductible TD (Taxable TD) Expected to be Realized	Effective Tax Rate	Future Tax Asset Current	Future Tax Asset Non Current	Future Tax Liability Current	Future Tax Liability Non Current
1		Plant-in-Service	$ 51,277,394 [1]								
2		Accum. Deprec.	(22,188,813) [1]								
3		CIAC	(13,104,947) [3]								
4	Fed.	Fixed Assets	$ 15,983,634	$ 10,055,503 [2]	100.0%	$ (5,928,131)	32.33%		-		(1,916,802)
5	State	Fixed Assets	$ 15,983,634	$ 14,796,231 [2]	100.0%	$ (1,187,404)	4.900%		-		(58,183)
6	Fed &State	AIAC		783,815 [4]	100.0%	$ 783,815 [4]	37.23%		$ 291,846		
7								$ -	$ 291,846	$ -	$ (1,974,985)
8		Net Asset (Liability)						$ (1,683,139)			
9		Allocation Factor - Wastewater-Division (based on rate base before ADIT)						0.3464			
10		Net Asset (Liability) Water Division						$ (583,050)			
11		Allocated Corporate ADIT[5]						$ (201)			
12		RUCO Total ADIT Asset / (Liability) for Wastewater Division						$ (583,251)			
13		Company Adjusted TY ADIT Asset / (Liability) As Filed						$ (683,150)			
14		RUCO Adjustment to ADIT						$ (99,899)			

Footnotes - See page 7.1

RECAP SCHEDULES:
TJC-2

RATE BASE ADJUSTMENT NO. 9 (Continued)
ACCUMULATED DEFERRED INCOME TAXES (ADIT)

Line No.		FEDERAL			STATE		
1	[1] **Per adjusted book balances, land not included**						
2							
3	[2] **Computation of Net Tax Value December 31, 2014**						
4							
5	Based on 2014 Tax Depreciation report (December 31, 2014)						
6	Adjusted Cost at December 31, 2014 per federal and state tax depr. report	$ 9,798,901			$ 14,415,812		
7	Land on Tax and not on included in adjusted plant balance						
8	PTY Plant	1,393,904			1,393,904		
9					-		
10					-		
11					-		
12					-		
13					-		
14					-		
15	Net Unadjusted Cost tax Basis at December 31, 2014			$ 11,192,805			$ 15,809,716
16							
17	Reductions						
18	Basis Reduction 2014 per federal and state tax depr. report	$ (430,281)			$ -		
19	Accumulated Depreciation 2014	(707,021)			(1,013,485)		
20	PTY Plant						
21		-			-		
22		-			-		
23							
24							
25				(1,137,302)			(1,013,485)
26	Net Reductions through December 31, 2014			$ 10,055,503			$ 14,796,231
27	Net tax value of plant-in-service at December 31. 2014						
28							
29	[3] **CIAC (including impact of change to probability of realization)**						
30	Gross CIAC per adjusted book balances		$ 25,374,157				
31	CIAC reductions/addtions						
32	A.A per adjusted book balances	$ (13,323,366)					
33		-					
34			(13,323,366)				
35	Net CIAC before unrealized AIAC			$ 12,050,792			
36							
37	Unrealized AIAC Component						
38	AIAC per adjusted book balances		$ 1,505,937				
39	Adjusted Net AIAC (see footnote 5 below)		70.0%				
40	Unrealized AIAC Component % (1-Realized AIAC Component)			$ 1,054,156			
41				$ 13,104,947			
42	Total realizable CIAC						
43							
44	[4] **AIAC (including impact of change in probability of realization)**						
45	AIAC per adjusted book balances			$ 1,505,937			
46	Less: Unrealized AIAC (from Note 3, above)			$ (1,054,156)			
47							
48	Subtotal			$ 451,781			
49	Meter and Service Line Installation Charges per adjusted book balances			332,034			
50	Total realizable AIAC			$ 783,815			
51							

RATE BASE ADJUSTMENT NO. 10
CASH WORKING CAPITAL LEAD / LAG STUDY

Line No.	Description	[A] Company Adjusted Test Year As Filed	[B] RUCO Expense Adjustments	[C] RUCO Recommended Expense	[D] Revenue Lag Days	[E] Expense (Lead)/Lag Days	[F] Net (Lead)/Lag Days Col. [D] - Col. [E]	[G] (Lead)/Lag Factor Col. [F] / 365	[H] Cash Working Capital Requirement Col. [C] x Col. [G]
	Operating Expenses:								
1	Salaries and Wages	$ -	$ -	$ -	0.56	-	0.56	0.00153	$ -
2	Purchased Wastewater Treatment	3,811	-	3,811	0.56	29.82	(29.26)	(0.08017)	(306)
3	Sludge Removal	-	-	-	0.56	-	0.56	0.00153	-
4	Purchased Power	67,788	-	67,788	0.56	34.96	(34.40)	(0.09425)	(6,389)
5	Fuel for Power Production	-	-	-	0.56	-	0.56	0.00153	-
6	Chemicals	6,030	-	6,030	0.56	3.91	(3.35)	(0.00918)	(55)
7	Materials and Supplies	7,433	-	7,433	0.56	17.14	(16.58)	(0.04543)	(338)
8	Contractual Services - Professional	167,347	(34,521)	132,825	0.56	19.99	(19.43)	(0.05324)	(7,071)
9	Contractual Services - Testing	405	-	405	0.56	8.50	(7.94)	(0.02176)	(9)
10	Contractual Services - Other	260,568	(658)	259,910	0.56	22.47	(21.91)	(0.06003)	(15,603)
11	Office Supplies and Expense	1,916	-	1,916	0.56	46.21	(45.65)	(0.12507)	(240)
12	Rents	3,379	-	3,379	0.56	46.21	(45.65)	(0.12507)	(423)
13	Transportation	10,899	-	10,899	0.56	20.78	(20.22)	(0.05540)	(604)
14	Insurance	7,991	-	7,991	0.56	(182.50)	183.06	0.50153	4,008
15	Miscellaneous Expense	45,814	(374)	45,440	0.56	112.06	(111.50)	(0.30548)	(13,881)
16	**Total Operating Expenses**	$ 583,380	$ (35,553)	$ 547,827					
	Taxes:								
17	General Taxes-Property[1]	$ 79,614	$ (4,260)	$ 75,354	0.56	213.96	(213.40)	(0.58466)	(44,056)
18	General Taxes-Other	-	-	-	0.56	-	0.56	0.00153	-
19	Income Tax[1]	240,175	(60,732)	179,444	0.56	37.00	(36.44)	(0.09984)	(17,916)
	Other:								
20	Regulatory Commission Expense	$ 14,717	$ (14,717)	$ -	0.56	(136.54)	137.10	0.37562	$ -
21	Interest Expense on Proposed Long-Term Debt	-	39,852	39,852	0.56	90.25	(89.69)	(0.24573)	(9,793)
22	Total Cash Working Capital Expenses	$ 917,886	$ (75,410)	$ 842,476					
23	Total RUCO Recommended Cash Working Capital								$ (112,676)
24	Total Company Proposed Cash Working Capital								11,300
25	RUCO Cash Working Capital Adjustment								$ (123,976)

References:
[1] At Proposed Rates

OPERATING INCOME SUMMARY

Line No.	Description	[A] Company Adjusted Test Year As Filed	[B] RUCO Recommended Adjustments	[C] RUCO Recommended Adjusted Test Year Amounts	[D] RUCO Recommended Changes	[E] RUCO Recommended Amounts
	Revenues:					
1	Flat Rate Revenue	$ 1,470,855	$ -	$ 1,470,855	$ (31,318)	$ 1,439,537
2	Measured Revenues	-	-	-	-	-
3	Misc Revenues	7,468	-	7,468	-	7,468
4	**Total Revenues**	$ 1,478,323	$ -	$ 1,478,323	$ (31,318)	$ 1,447,005
	Operating Expenses:					
5	Salaries and Wages	$ -	$ -	$ -	$ -	$ -
6	Purchased Wastewater Treatment	3,811	-	3,811	-	3,811
7	Sludge Removal	-	-	-	-	-
8	Purchased Power	67,788	-	67,788	-	67,788
9	Fuel for Power Production	-	-	-	-	-
10	Chemicals	6,030	-	6,030	-	6,030
11	Materials and Supplies	7,433	-	7,433	-	7,433
12	Contractual Services - Professional	167,347			-	
13	Contractual Services - Testing	405	-	405	-	405
14	Contractual Services - Other	260,568			-	
15	Office Supplies and Expense	1,916	-	1,916	-	1,916
16	Rents	3,379	-	3,379	-	3,379
17	Transportation	10,899	-	10,899	-	10,899
18	Insurance	7,991	-	7,991	-	7,991
19	Regulatory Commission Expense	14,717	-	14,717	-	14,717
20	Miscellaneous	45,814	(374)	45,440	-	45,440
21	Depreciation	326,172	(40,924)	285,248	-	285,248
22	Taxes Other Than Income	-	-	-	-	-
23	Property Taxes	75,741	149	75,890	(536)	75,354
24	Income Tax	157,337	33,568	190,905	(11,461)	179,444
25	**Total Operating Expenses**	$ 1,157,347			$ (11,997)	$ 1,102,589
26	**Operating Income**	$ 320,976			$ (19,321)	$ 344,416

References:

Column [A]: Company Schedule C-1;
Column [B]: RUCO Recommended Total Adjustments Per Schedule TJC-12 on pages 1-2 at page 2 in Column [S] at line 26;
Column [C]: Column [A] + [B] - RUCO Recommended Adjusted Test Year Amounts Per Schedule TJC-12 on page 2 of 2 in Column [T];
Column [D]: RUCO Recommended Increase/(Decrease) to Revenue Requirement;
Column [E]: Column [C] + [D] - RUCO Recommended Increase/(Decrease) Amounts for Revenue Requirement.

RUCO OPERATING INCOME ADJUSTMENTS

Line No.	Description	[A] Company Adjusted Test Year As Filed	[B] Adj. No. 1 Depreciation Expense	[C] Adj. No. 2 Property Taxes	[D] Adj. No. 3 Incentive Pay Adjustment	[E] Adj. No. 4 Pay Increase Adjustment	[F] Adj. No. 5 Intentionally Left Blank	[G] Adj. No. 6 Intentionally Left Blank	[H] Adj. No. 7 Postage Decrease Adjustment	[I] Adj. No. 8 Intentionally Left Blank	[J] Adj. No. 9 APUC Non-Labor Adjustments
	Revenues:										
1	Flat Rate Revenue	$ 1,470,855	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	Measured Revenues	-	-	-	-	-	-	-	-	-	-
3	Misc Revenues	7,468	-	-	-	-	-	-	-	-	-
4	**Total Revenues**	$ 1,478,323	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Operating Expenses:										
5	Salaries and Wages	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	Purchased Wastewater Treatment	3,811	-	-	-	-	-	-	-	-	-
7	Sludge Removal	-	-	-	-	-	-	-	-	-	-
8	Purchased Power	67,788	-	-	-	-	-	-	-	-	-
9	Fuel for Power Production	-	-	-	-	-	-	-	-	-	-
10	Chemicals	6,030	-	-	-	-	-	-	-	-	-
11	Materials and Supplies	7,433	-	-	-	-	-	-	-	-	-
12	Contractual Services - Professional	167,347	-	-	(8,554)	(2,296)	-	-	-	-	
13	Contractual Services - Testing	405	-	-	-	-	-	-	-	-	-
14	Contractual Services - Other	260,568	-	-	-	(658)	-	-	-	-	-
15	Office Supplies and Expense	1,916	-	-	-	-	-	-	-	-	-
16	Rents	3,379	-	-	-	-	-	-	-	-	-
17	Transportation	10,899	-	-	-	-	-	-	-	-	-
18	Insurance	7,991	-	-	-	-	-	-	-	-	-
19	Regulatory Commission Expense	14,717	-	-	-	-	-	-	-	-	-
20	Miscellaneous	45,814	-	-	-	-	-	-	(374)	-	-
21	Depreciation	326,172	(40,924)	-	-	-	-	-	-	-	-
22	Taxes Other Than Income	-	-	-	-	-	-	-	-	-	-
23	Property Taxes	75,741	-	149	-	-	-	-	-	-	-
24	Income Tax	157,337	-	-	-	-	-	-	-	-	-
25	**Total Operating Expenses**	$ 1,157,347	$ (40,924)	$ 149	$ (8,554)	$ (2,954)	$ -	$ -	$ (374)	$ -	
26	**Operating Income**	$ 320,976	$ 40,924	$ (149)	$ 8,554	$ 2,954	$ -	$ -	$ 374	$ -	

Adjustments:

Adjustment No. 1: Depreciation Expense - See RUCO Schedule TJC-13 in Column [G] at line 45;
Adjustment No. 2: Property Taxes - See RUCO Schedule TJC-14 in Column [A] at line 18;
Adjustment No. 3: Incentive Pay - See RUCO Schedule TJC-15 on line 5;
Adjustment No. 4: Remove 2nd Pay Raise - See RUCO Schedule TJC-16 on page 1 of 1 at line 11;
Adjustment No. 5: Declining Usage - Not Used for Sewer System;
Adjustment No. 6: Intentionally Left Blank;
Adjustment No. 7: Postage Decrease - See RUCO Schedule TJC-19 at line 5;
Adjustment No. 8: Intentionally Left Blank;
Adjustment No. 9: APUC Non-Labor Adjustment - See RUCO Schedule TJC-21 at line 14;

References:

Column [A]: Company Schedule C-1 Adjusted Test Year as Filed;
Column [B] through [J]: RUCO Recommended Adjusted Test Year Adjustments;

RUCO OPERATING INCOME ADJUSTMENTS

Line No.	Description	[K] Adj. No. 10 Corporate Labor Adjustments	[L] Adj. No. 11 Intentionally Left Blank	[M] Adj. No. 12 Intentionally Left Blank	[N] Adj. No. 13 Corporate LU 8020 Labor Adjustment	[O] Adj. No. 14 Intentionally Left Blank	[P] Adj. No. 15 Intentionally Left Blank	[Q] Adj. No. 16 Intentionally Left Blank	[R] Adj. No. 17 Income Taxes	[S] Total RUCO Recommended Adjustments	[T] RUCO Adjusted Test Year Recommended
	Revenues:										
1	Flat Rate Revenue	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,470,855
2	Measured Revenues	-	-	-	-	-	-	-	-	-	-
3	Misc Revenues	-	-	-	-	-	-	-	-	-	7,468
4	**Total Revenues**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,478,323
	Operating Expenses:										
5	Salaries and Wages	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	Purchased Wastewater Treatment	-	-	-	-	-	-	-	-	-	3,811
7	Sludge Removal	-	-	-	-	-	-	-	-	-	-
8	Purchased Power	-	-	-	-	-	-	-	-	-	67,788
9	Fuel for Power Production	-	-	-	-	-	-	-	-	-	-
10	Chemicals	-	-	-	-	-	-	-	-	-	6,030
11	Materials and Supplies	-	-	-	-	-	-	-	-	-	7,433
12	Contractual Services - Professional	[redacted]	-	-	[redacted]	-	-	-	-	-	132,825
13	Contractual Services - Testing	-	-	-	-	-	-	-	-	(34,521)	405
14	Contractual Services - Other	-	-	-	-	-	-	-	-	-	259,910
15	Office Supplies and Expense	-	-	-	-	-	-	-	-	(658)	1,916
16	Rents	-	-	-	-	-	-	-	-	-	3,379
17	Transportation	-	-	-	-	-	-	-	-	-	10,899
18	Insurance	-	-	-	-	-	-	-	-	-	7,991
19	Regulatory Commission Expense	-	-	-	-	-	-	-	-	-	14,717
20	Miscellaneous	-	-	-	-	-	-	-	-	(374)	45,440
21	Depreciation	-	-	-	-	-	-	-	-	(40,924)	285,248
22	Taxes Other Than Income	-	-	-	-	-	-	-	-	-	-
23	Property Taxes	-	-	-	-	-	-	-	-	149	75,890
24	Income Tax	-	-	-	-	-	-	-	33,568	33,568	190,905
25	**Total Operating Expenses**	[redacted]	$ -	$ -	[redacted]	$ -	$ -	$ -	$ 33,568	$ (42,761)	$ 1,114,586
26	**Operating Income**	[redacted]	$ -	$ -	[redacted]	$ -	$ -	$ -	$ (33,568)	$ 42,761	$ 363,737

Adjustments:

Adjustment No. 10: APUC, LUC, and LABS 45% Labor Adjustment - See RUCO Schedule TJC-22;
Adjustment No. 11: Intentionally Left Blank;
Adjustment No. 12: Intentionally Left Blank
Adjustment No. 13: APUC Corporate LU 8020 Allocations - See RUCO Schedule TJC-25;
Adjustment No. 14: Intentionally Left Blank;
Adjustment No. 15: Intentionally Left Blank;
Adjustment No. 16: Rate Case Expense - Not Used;
Adjustment No. 17: Income Taxes - See RUCO Schedule TJC-29.

References:

Column [K] thru [R]: RUCO Recommended Adjusted Test Year Adjustments;
Column [S]: RUCO Total Adjusted Test Year Adjustments on Schedule TJC-12 page 1 of 2 in Columns [B] thru Schedule TJC-12 page 2 of 2 in Columns [K] thru [R];
Column [T]: Column [A] on Schedule TJC-12 at page 1 of 2 + Column [S] on Schedule TJC-12 page 2 of 2 - RUCO Recommended Adjusted Test Year Balances.

OPERATING INCOME ADJUSTMENT NO. 1
DEPRECIATION EXPENSE

Line No.	NARUC Account	Description	[A] Company UPIS As Filed	[B] RUCO UPIS Adjustments Recommended	[C] RUCO UPIS Balances Recommended	[D] RUCO Non-Depre. Fully Depre.	[E] RUCO Depreciable UPIS Recommended	[F] Authorized Depreciation Rate	[G] RUCO Depreciation Expense Recommended
		Direct Plant:							
1	351	Organization	$ 5,785	$ -	$ 5,785	$ (5,785)	$ -	0.00%	$ -
2	352	Franchise	417	-	417	(417)	-	0.00%	-
3	353	Land	7,545	-	7,545	(7,545)	-	0.00%	-
4	354	Structures & Improvements	487,891	(203,874)	284,017	-	284,017	3.33%	9,458
5	355	Power Generation	-	-	-	-	-	5.00%	-
6	360	Collection Sewer Forced	636,023	-	636,023	-	636,023	2.00%	12,720
7	361	Collection Sewers Gravity	6,699,939	(22,276)	6,677,662	-	6,677,662	2.00%	133,553
8	362	Special Collecting Structures	-	-	-	-	-	2.00%	-
9	363	Customer Services	1,286,513	(5,654)	1,280,859	-	1,280,859	2.00%	25,617
10	364	Flow Measuring Devices	65,412	-	65,412	(65,412)	-	10.00%	-
11	366	Reuse Services	-	-	-	-	-	2.00%	-
12	367	Reuse Meters And Installation	-	-	-	-	-	8.33%	-
13	370	Receiving Wells	867,120	-	867,120	-	867,120	3.33%	28,875
14	371	Pumping Equipment	751,817	(304,386)	447,430	-	447,430	12.50%	55,929
15	374	Reuse Distribution Reservoirs	-	-	-	-	-	2.50%	-
16	375	Reuse Trans. and Dist. System	-	-	-	-	-	2.50%	-
17	380	Treatment & Disposal Equipment	982,394	-	982,394	-	982,394	5.00%	49,120
18	381	Plant Sewers	15,362	-	15,362	-	15,362	5.00%	768
19	382	Outfall Sewer Lines	-	-	-	-	-	3.33%	-
20	389	Other Sewer Plant & Equipment	63,376	-	63,376	(57,170)	6,205	6.67%	414
21	390	Office Furniture & Equipment	142,738	-	142,738	-	142,738	6.67%	9,521
22	390.1	Computers and Software	4,025	-	4,025	(4,025)	-	20.00%	-
23	391	Transportation Equipment	117	-	117	-	117	20.00%	23
24	392	Stores Equipment	-	-	-	-	-	4.00%	-
25	393	Tools, Shop And Garage Equip	19,957	(11,399)	8,558	(5,139)	3,419	5.00%	171
26	394	Laboratory Equip	6,152	-	6,152	-	6,152	10.00%	615
27	395	Power Operated Equipment	29,947	-	29,947	-	29,947	5.00%	1,497
28	396	Communication Equip	6,057	-	6,057	-	6,057	10.00%	606
29	397	Miscellaneous Equip.	-	-	-	-	-	10.00%	-
30	398	Other Tangible Plant	3,913	-	3,913	(3,913)	-	10.00%	-
31	398.1	Nogales WWTP	2,431,717	-	2,431,717	-	2,431,717	4.72%	114,777
32		**Total Direct Plant**	$ 14,514,216	$ (547,590)	$ 13,966,627	$ (149,406)	$ 13,817,221		$ 443,665
		Allocated Corporate Plant:							
33	903	Land & Land Rights	$ 5,880	$ (5,880)	$ -	$ -	$ -	0.00%	$ -
34	904	Structures and Improvements	63,809	(52,894)	10,915	-	10,915	2.56%	279
35	940	Office Furniture and Fixtures	6,939	-	6,939	-	6,939	6.67%	463
36	940.1	Computers and Software	45,811	(9,212)	36,599	-	36,599	20.00%	7,320
37		**Total Allocated Corporate Plant**	$ 122,438	$ (67,986)	$ 54,452	$ -	$ 54,452		$ 451,727
38		**Total Utility Plant in Service (UPIS)**	$ 14,636,654	$ (615,575)	$ 14,021,079	$ (149,406)	$ 13,871,673		
			Gross CIAC			Fully Amortized CIAC	Gross CIAC Depre. Deduction		
39		Less: Contributions in Aid of Construction	$ 5,112,247			-	$ 5,112,247	3.26%	$ (166,479)
40		Regulatory Liability					-	0.00%	-
41		RUCO Total Depreciation Expense							285,248
42		Company Adjusted Depreciation Expense As Filed							326,172
43		RUCO Increase/(Decrease) Expense Adjustment							$ (40,924)

* Fully Depreciated Per Company Schedule C-2, page 2

References:
Company B-2 and C-1 Schedules, and RUCO Schedule TJC-4(a), pages 1 & 2

OPERATING INCOME ADJUSTMENT NO. 2
PROPERTY TAXES

Line No.	Property Tax Calculation	[A] RUCO AS ADJUSTED	[B] RUCO RECOMMENDED
1	RUCO Adjusted Test Year Gross Revenues	$ 1,478,323	$ 1,478,323
2	Multiplied by 2	2	2
3	Subtotal (Line 1 * Line 2)	$ 2,956,646	$ 2,956,646
4a	RUCO Adjusted Test Year Gross Revenues	1,478,323	
4b	RUCO Recommended Revenue		1,447,005
5	Subtotal (Line 3 + Line 4a)	$ 4,434,970	$ 4,403,652
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	$ 1,478,323	$ 1,467,884
8	Department of Revenue Mutilplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	$ 2,956,646	$ 2,935,768
10	Plus: 10% of CWIP Per Company Schedule E-1 As Filed	-	-
11	Less: Net Book Value of Licensed Vehicles	41	41
12	Full Cash Value (Line 9 + Line 10 - Line 11)	$ 2,956,605	$ 2,935,727
13	Assessment Ratio	18.0%	18.0%
14	Assessed Value (Line 12 * Line 13)	$ 532,189	$ 528,431
15	Composite Property Tax Rate (Per RUCO Effective Property Tax Calculation)	14.2600%	14.2600%
16	RUCO Adjusted Test Year Property Tax Expense (Line 14 * Line 15)	$ 75,890	
17	Company Adjusted Test Year Property Tax Expense (Per Company Schedule C-1)	75,741	
18	RUCO Test Year Adjustment (Line 16-Line 17)	$ 149	
19	Property Tax - RUCO Recommended Revenue (Line 14 * Line 15)		$ 75,354
20	RUCO Test Year Adjusted Property Tax Expense (Line 16)		75,890
21	Increase/(Decrease) to Property Tax Expense		$ (536)
22	Increase/(Decrease) to Property Tax Expense		$ (536)
23	Increase in Revenue Requirement		(31,318)
24	Increase /(Decrease) to Property Tax per Dollar Increase in Revenue (Line 22 / Line 23)		1.7112%

References:

RUCO Schedule TJC-11
RUCO Schedule TJC-4(a) page 1 of 2

OPERATING INCOME ADJUSTMENT NO. 3
INCENTIVE PAY

Line No.	Description	Amount
1	Incentive Pay in Test Year	$ 636,000
2	50 / 50 Sharing Between Ratepayers and Shareholders	50.00%
3	Ratepayers Share	$ 318,000
4	Bella Vista Allocation Factor	2.69%
5	Ratepayers 50% Sharing Adjustment	$ (8,554)

References:
Per Company Response to RUCO DR 2.04
Rio Rico Water Allocation Factor per Company Response to Staff DR 2.7

OPERATING INCOME ADJUSTMENT NO. 4
PAYROLL INCREASE

Line No.	Description	Amount
	Contractual Services - Professional:	
1	Per RUCO's Company Schedule E W/P After APUC, LUC, and LABS Labor Adjustments	
2	RUCO Recommended Pay Increase	3.00%
3	RUCO Recommended Allowance	$ 1,769
4	Pay Increase per Company Filing	4,065
5	RUCO Adjustment	$ (2,296)
	Contractual Services - Other:	
6	Per Company Schedule C-2, Page 9	$ 21,289
7	RUCO Recommended Pay Increase	3.00%
8	RUCO Recommended Allowance	$ 639
9	Pay Increase per Company Filing	1,296
10	RUCO Adjustment	$ (658)
11	Total RUCO Adjustments to Contractual Services Professional and Other	$ (2,954)

References:
Per Company Schedule E TJB Final xls, Company Schedule C-2 on page 9, and RUCO W/P Schedule E TJB Final xls;
RUCO W/P SUPP#FA#.pdf

OPERATING INCOME ADJUSTMENT NO. 5
INTENTIONALLY LEFT BLANK

Line No.	Description	Amount
1		$ -

References:

OPERATING INCOME ADJUSTMENT NO. 6
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Line No.	Description	Amount

References:

OPERATING INCOME ADJUSTMENT NO. 7
POSTAGE DECREASE

Line No.	Description	Amount
1	Number of Water Bills in Test Year with Annualized Bill Counts	76,897
2	US Postal Service Decrease in Postage Effective April 7, 2016	($0.02)
3	Total Adjustment in Postage Due to Postage Price Decrease	$ (1,538)
4	Rio Rico Sewer Allocation Factor	24.33%
5	RUCO Adjustment	$ (374)

References:
US Postal Service Price Decrease Effective April 7, 2016

OPERATING INCOME ADJUSTMENT NO. 8
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Line No.	Description	Amount

References:

OPERATING INCOME ADJUSTMENT NO. 9
APUC ALLOCATIONS

Line No.	Description	Amount
	APUC, LABS, LUC	
1	**Description of APUC Expense**	**Total APUC Expense**	**Allocation Percent**	**APUC Amount Allocated to Affiliate**	**Allocation Percent**	**APUC Amount Allocated to Rio Rico**	**NARUC**	**RUCO Percentage Allowed**	**RUCO Amount Allowed**
2	[redacted]								
3									
4									
5									
6									
7									
8									
9									
10									
11	**Totals**								
12	APUC Non-Labor per Company	[redacted]
13	APUC Non-Labor per RUCO	[redacted]
14	RUCO Adjustment	[redacted]

References:
Company Response to Staff DR 2.7

OPERATING INCOME ADJUSTMENT NO. 10
CONTRACTUAL SERVICES - PROFESSIONAL LABOR

Line No.	Description	Amount
1	Contractual Services - Professional Labor per Company	[redacted]
2	Contractual Services - Professional Recommended Labor per RUCO	[redacted]
3	RUCO Adjustment	[redacted]

References:
RUCO RR W 2015 Rio Rico E Schedules

OPERATING INCOME ADJUSTMENT NO. 11
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Line No.	Description	Amount

References:

OPERATING INCOME ADJUSTMENT NO. 12
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Line No.	Description	Amount
1		$ -
2		-
3		$ -

References:

OPERATING INCOME ADJUSTMENT NO. 13
LU 8020 LABOR COST ALLOCATIONS

Line No.	Description	[A] Company Allocated Amount	[B] RUCO Allocated Amount	[C] RUCO As Adjusted
1	LU 8020 Labor Cost Pool Allocations	[redacted]	[redacted]	
2	Company Used a Different Rio Rico Allocation Factor than Allocation Factor Claimed in Application	[redacted]	[redacted]	
3	Company & RUCO Allocated LU 8020 Cost Pool to RRUI Water Adjustment (Column [A] - [B]	[redacted]	[redacted]	[redacted]
4	RUCO Adjustmentment			[redacted]

References:
RUCO W/P SUPP#FA#.pdf

OPERATING INCOME ADJUSTMENT NO. 14
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Line No.	Description	Amount

References:

OPERATING INCOME ADJUSTMENT NO. 15
INTENTIONALLY LEFT BLANK

Line No.	Description	Amount

References:

RATE BASE ADJUSTMENT NO. 16
RATE CASE EXPENSE

Line No.	Description	Amount
1	Company Rate Case Expense Requested	$ 73,583
2	RUCO Rate Case Expense Recommended	73,583
3	RUCO Adjustment	$ -
4	Annual Rate Case Expense Normalized Over 5-Years (Line 2 / 5-Years)	$ 14,717

References:
Per Company Schedule C-2

OPERATING INCOME ADJUSTMENT NO. 17
INCOME TAXES

Line No.	Description	[A] RUCO Adjusted Test Year Amount	[B] RUCO Recommended Amount
1	RUCO Computed Adjusted Test Year Income Tax	$ 190,905	$ 179,444
2	Company Income Tax As Filed	157,337	240,175
3	RUCO Adjustment to Income Tax Expense	$ 33,568	$ (60,732)

References:
See RUCO Schedule TJC-1 at page 2 of 2;
Company Schedule C-1 Adjusted Test Year as Filed

GROSS REVENUE CONVERSION FACTOR (GRCF)

Line No.	Description	Amount
1	Combined Federal & State Effective Income Tax Rate	37.2340%
2	Property Tax Effective Rate	1.0741%
3	Uncollectible Revenue Effective Rate	0.0000%
4	Total Cobined Federal, State, Property, and Uncollectible Effective Rates (Sum of L1 + L2 + L3)	38.3081%
5	Operating Income % = 100% Minus Combined Federal, State, Property, Uncollectible Effective Rates (100% Minus Line 4)	61.6919%
6	$\frac{1}{\text{Operating Income \% on Line 5}}$ =	**1.6210**

References:
RUCO Schedule TJC-1, Page 1 of 2 and Page 2 of 2
RUCO Schedule TJC-11

COST OF CAPITAL

Line No.	Description	[A] DOLLAR AMOUNT	[B] CAPITAL RATIO	[C] COST RATE	[D] WEIGHTED COST RATE
1	Long-Term Debt	$ 4,938,067	30.00%	2.97%	0.89%
2	Common Equity	11,522,155	70.00%	9.17%	6.42%
3	Total Capitalization	$ 16,460,222	100.00%		
4	WEIGHTED AVERAGE COST OF CAPITAL ("WACC")				7.31%

References:
Columns [A] Thru [D]: JAC & JAC Testimony

LIBERTY UTILITIES

(BELLA VISTA WATER & RIO RICO WATER & WASTEWATER)

DOCKET NOS. W-02465A-15-0367 et al.

DIRECT TESTIMONY

OF

ROBERT MEASE

ON BEHALF OF THE

RESIDENTIAL UTILITY CONSUMER OFFICE

MAY 23, 2016

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EXECUTIVE SUMMARY

Liberty Utilities Corp., ("Company," "Liberty" "Bella Vista" "Rio Rico") filed an application for a rate increase for its Bella Vista Water System and its Rio Rico water and wastewater systems. Included in the Company's application was a Fair Value Arizona Rate Evaluation Model or "FARE" that is being filed as a ratemaking mechanism designed to comply with Arizona law, including the fair value requirement. The Company has filed the FARE model as a replacement program for the System Improvement Benefit ("SIB") that was found unconstitutional by the Arizona Court of Appeals.

The Arizona Corporation Commission ("ACC" or "Commission") had approved a SIB mechanism for six water districts and one wastewater district ("CSIB") and RUCO had taken exception in each filing. RUCO's objection to a SIB and/or CSIB mechanism in past SIB applications had in general been; (1) that the SIB inappropriately shifts risk from the Company to ratepayers without adequate financial consideration to the ratepayer; (2) the SIB is not an adjustor mechanism; (3) the SIB will increase the Company's fair value rate base without any determination of fair value; (4) the Company has not requested interim rates; and (5) the SIB is not in the public interest.

In summary, RUCO takes issue with the Company's FARE proposal for numerous reasons as explained further in testimony. Basically RUCO takes exception for the same reasons as taken in a SIB request. Primarily, the FARE model as presented by the Company does not meet the Arizona constitutional requirements, as stated by the Arizona Court of Appeals, requiring that the Company find fair value at the time of setting new rates. In this case, the FARE model does not establish a fair value as the Company has chosen to eliminate the cost of capital evaluation in determining new rates. In addition, RUCO believes that this filing is premature. The decision as rendered by the Arizona Court of Appeals declaring that the SIB is unconstitutional has been heard by the Arizona Supreme Court and a decision by the court is pending. In addition to the lack of determining fair value, RUCO identifies numerous deficiencies in the Company's FARE model as filed and are discussed throughout this testimony.

I. INTRODUCTION

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

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

Q. Please describe your qualifications in the field of utilities regulation and your educational background.

A. Attachment I, which is attached to this testimony, describes my educational background, work experience and regulatory matters in which I have participated. In summary, I joined RUCO in October of 2011. I graduated from Morris Harvey College in Charleston, WV and attended Kanawha Valley School of Graduate Studies. I am a Certified Public Accountant ("CPA") and currently licensed in the state of West Virginia, as well as a Certified Rate of Return Analyst ("CRRA"). My years of work experience include serving as Vice President and Controller of Energy West, Inc. a public utility and energy company located in Great Falls, Montana. While with Energy West I had responsibility for all utility filings and participated in several rate case filings on behalf of the utility. As Energy West was a publicly traded company listed on the NASDAQ Exchange I also had responsibility for all filings with the Securities and Exchange Commission.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present RUCO's recommendations as it relates to the Company's FAIR VALUE ARIZONA RATE EVALUATION (FARE) Model as presented in this rate case filing.

II. SUMMARY OF FARE MODEL

Q. Can you please describe FARE Model as proposed by the Company?

A. Yes, I will describe the Company's model as proposed in their application. In essence Mr. Matthew Garlick, President of Liberty Utilities regulated utilities in Arizona and Texas, describes the FARE as a rate making tool that will replace the System Improvement Benefit ("SIB") that had previously been approved by the ACC but ultimately was found unconstitutional by the Arizona Court of Appeals. "The FARE will use regularly scheduled filings to reach updated fair value findings, promoting rate gradualism and rate stability, and minimizing the adverse consequences of regulatory lag. The intent, purpose and result will be to keep rates fair by updating revenues, plant and expenses each year in a simplified but entirely open and transparent process."[1]

[1] See Mr. Matthew Garlick's Direct Testimony, Page 17

Q. Are there any other specifics that should be identified prior to discussing the benefits as discussed by the Company?

A. Yes. The Company has proposed that the FARE as filed for Liberty's Bella Vista and Rio Rico Systems be a pilot program authorized by the Commission during and after which it can be evaluated and refined by all stakeholders.

III. FARE BENEFITS TO CUSTOMERS, UTILITIES AND COMMISSION

Q. What are the benefits of the FARE to Arizona's utility customers, Arizona utilities and the Commission as identified by the Company?

A. The benefits as described in the FARE document as filed include:[2]

1) **Transparency** –The FARE is an exceptionally transparent rate making model. The process will be open and transparent through the use of quarterly and annual FARE filings. Those quarterly and annual filings will provide the Commission and any interested parties with updated and ongoing information about utility financial and operational status.

2) **Rate Gradualism and Rate Stability** – Use of the Established Range brings a great deal of stability to residential customer bills, which allows customers to budget and plan for cost increases. Likewise, commercial customers can better plan for rate increases, in turn fostering economic development.

3) **Rate Shock** – The FARE promotes rate gradualism and rate stability while minimizing the risks of rate shock.

4) **The FARE Works Both Ways** – All FARE filings will be mandatory. As such, the utility can't avoid a reduced revenue requirement and decreased rates, if circumstances warrant. By also capturing reductions in operation and maintenance expenses, operating efficiencies will provide timely benefits to customers.

[2] See FAIR VALUE ARIZONA RATE EVALUATION (FARE) MODEL, Pages 12 and 13

5) **Streamlined and Less Costly Rate Making Process** – The FARE provides a set schedule for approximately six years of rate setting for Liberty BV/RR. All stakeholders benefit by streamlined and less costly rate making procedures. The FARE will result in more efficient use of limited resources.

6) **Sharing of Reduced Expenses** – Filing of updated expense information under the FARE captures and addresses reductions in operation and maintenance expenses. This means that operating efficiencies provide timely benefits to ratepayers.

7) **Reduce Regulatory Lag and Encourage Needed Utility Investment** – The FARE is designed to reduce the adverse consequences of regulatory lag and, in so doing, make investments into Arizona water and wastewater utility infrastructure more attractive.

8) **Closer Scrutiny by Regulators and Other Parties** – As proposed with quarterly and annual filings, the FARE results in a close and ongoing scrutiny of a utility rather that once every few years in a general rate case if filed.

9) **Other Tangible Benefits** – The FARE will result in better and more reliable provision of water and sewer service by Arizona utilities, including reduced water loss.

10) **Compliance with Arizona's Fair Value Requirement** – As written, the FARE proposed as a pilot program for Liberty BV/RR is designed to comply with Arizona's fair value requirement and, specifically, the recent SIB decision.

Q. Can you please explain "Established Range" that is reference in No. 2 above?

A. Yes. Under the FARE, if the Commission's fair value determination shows that Liberty Bella Vista's and/or Liberty Rio Rico's earnings are within an "Established Range" equal to plus or minus 20 basis points from the authorized rate of return on equity (ROE), there will be no change in the revenue requirement and rates for the one year period covered by the

annual FARE filing. If Liberty Bella Vista's or Liberty Rio Rico's earnings fall outside the Established Range, the Commission shall set a new revenue requirement based on its fair value finding and the costs of service shall be increased or decreased as necessary to produce the authorized ROE. Additionally, if Liberty Bella Vista's and/or Liberty Rio Rico's annual FARE filing reflects that either Company is under-earning or over-earning by 100 basis points or more, then the Company shall file a general rate application within 120 days of the Commission issuing such a finding, unless the Commission orders otherwise pursuant to a request by Liberty Bella Vista or Liberty Rio Rico.[3]

IV. RUCO'S ANALYSIS OF THE FARE BENEFITS IDENTIFIED BY LIBERTY

Q. Does RUCO have any concerns or issues with the Company's defined benefits as described above for the Company as well as ratepayers?

A. Yes. RUCO has numerous issues with Liberty's FARE model. I will reference each issue with the numbered benefit previously listed and is included in the Company's testimony.

<u>No. 1 Above – Transparency</u>

As stated by Liberty, the process will be open and transparent through the use of quarterly and annual FARE filings. While this may sound and look

[3] See Mr. Peter Eichler's Testimony, Pages 10 and 11 for discussion on "Established Range"

great, in reality, when looking at the time line as proposed by the Company for the analytical review by Commission Staff and other parties is overly aggressive. To require, 1) a review of the filing, 2) make an accurate determination of fair value, and 3) file testimony, all within 45 days, is overly aggressive and not prudent rate making. This will be discussed in more detail in Section V SCHEDULES TO BE FILED.

No. 2 Above – Rate Gradualism and Rate Stability

RUCO understands the concept of rate gradualism but can demonstrate that if rates increase yearly as a result of a FARE rate increase the ratepayer will pay more in the long run as compared to the current rate making process. RUCO has demonstrated this in prior rate filings and testimony when discussing the SIB.[4] In addition, RUCO fails to understand how a potential increase in rates each year can be described by the Company as rate stability and in the public interest.

No. 3 Above – Rate Shock

RUCO agrees with the Company, rate shock should be avoided if at all possible. However, if given the choice of paying gradual increases each year over a five year period of time vs. paying a lessor amount as a one-time rate increase in year five, I would expect that the ratepayer would prefer to pay the lessor amount.

[4] See RUCO Testimony Docket No. WS-01303A-14-0010, Page 13

No. 4 Above - The FARE Works Both Ways

The Company has indicated that FARE rates could move up or down in any given year. When ask by Staff in DR No. JRA 3.6 to prepare an analysis since year 2000 and identify all years where rates would have decreased, the Company responded as follows; "The Company has not performed the analysis requested in JRA 3.6 and the Companies cannot perform such an analysis at this time without devoting substantial amount of time, resources and cost to such exercise."

While Liberty has stated that rates could go up or down they are unable to confirm that this is factually correct. RUCO does not believe that a one way adjustment mechanism that only causes rates to increase is in the best interest of ratepayers. Second, the Company is unwilling to confirm that rates can move, both up or down, but invites RUCO to perform such an analysis. It's the responsibility of the Company to support its rate case application, not RUCO.

No. 5 Above – Streamlined and Less Costly Rate Making Process

This can certainly be debated. When reviewing the amount of time involved in an annual review of a FARE filing, coupled with the amount of time involved in conducting a full rate case review, the proposed FARE method will likely result in considerable more time and cost. This will be discussed in more detail in Section V, SCHEDULES TO BE FILED.

No. 6 Above – Sharing of Reduced Expenses

This "could be" an advantage. However, this too has been a debatable issue, in the past, when discussed in SIB filings. Testimony has been provided in past company filings that indicate a reduction in operating and maintenance expenses may or may not result when adding infrastructure. In this filing, since there are no specific expenditures or projects identified and there is no calculation as to the dollar amount of the projected FARE rate increases, there is no reasonably accurate way to determine if any Company expense(s) will increase or decrease.

No. 7 Above – Reduced Regulatory Lag and Encourage Needed Utility Investment

The Company has consistently stated, throughout the FARE testimonies, that approval of a FARE mechanism will improve the adverse effects of regulatory lag for both the Company as well as the ratepayer. While it is true, regulatory lag could be reduced, in this case it will be to the detriment of the ratepayer. Why is this true? The Company has not filed sufficient details to determine what type(s) of capital expenditures will be included in its FARE request. In Mr. Eichler's response to RUCO's DR. No. 5.05 he states, "The FARE is intended to include all reasonable and prudent investment and operating expenses in rates. It is not intended to cover only certain specific capital projects." From the Company's response and

the mere fact that "any" capital expenditure can be included, you simply cannot tell which party, the Company or ratepayer, will be affected.

No. 8 Above – Closer Scrutiny by Regulators and Other Parties

If approved by the Commission, there would, or could, be closer scrutiny by regulators. The time line as proposed by the Company for Staff and Other Parties to review and respond to the FARE filing is 45 days. This includes preparation, issuing and reviewing data requests, as well as preparation and filing of testimony. Once direct testimony is filed, the Company will reply to Staff and other intervening parties within 15 days and a hearing if necessary within 30 days after Company response. The final step in the process, the Fare Order and Implementation of Rates, will be within 60 days of the hearing. The timeline as filed in the application is as follows:

Day 1	FARE FILING
Day 45	STAFF/OTHER PARTIES REVIEW AND RESPONSE
Day 60	COMPANY REPLY TO STAFF/OTHER PARTIES
Day 90	EVIDENTIARY HEARING (IF NECESSARY)
Day 150	FARE ORDER AND IMPLEMENTATION OF RATES

As shown above, Staff and other intervening parties have 45 days to develop their response to the Company's filing for a FARE increase. In a full rate case application filing for a Class "B" utility, Staff and other

intervening parties have 180 days to develop their responses and file testimony. Assuming the Company files four FARE filings, between rate case applications, Staff and other intervening parties would have devoted as much as 180 days (4 years X 45 days) of review time outside a rate case filing. In other words, there could be as many as 360 days of review work and testimony preparation during this process. While under the current method of rate making, there are 180 days devoted to developing responses and file testimony in the rate making process. The benefit of closer scrutiny is contrary to the benefit of a streamlined process that is less costly.

No. 9 Above – Other Tangible Benefits

The Company believes that the FARE will result in better and more reliable water and sewer service including reduced water loss. While this could be the case, it really depends on the projects the Company plans on completing. Currently, there is no way of knowing since the Company has not identified what they intend on filing and what assets and/or projects they intend on including in their FARE request.

No. 10 Above – Compliance with Arizona's Fair Value Requirement

RUCO does not believe that the Company's FARE model complies with Arizona's fair value requirement. The Company, in its FARE model has eliminated the cost of capital analysis as well as preparing a revised rate

design based on the new revenue requirement as calculated in the annual FARE filing. The Company has eliminated these two critical functions when establishing rates for several reasons. "First, that would pretty much turn the annual FARE filing into a lengthy and time consuming general rate case. Second, absent a major change in circumstances, the rate design shouldn't need to be revaluated each year. Third, while cost of capital does change from year to year, and even within a year, we are trying not to make the process longer, unduly expensive or overly burdensome."[5]

V. SCHEDULES TO BE FILED BY LIBERTY

Q. Has the Company included the schedules they plan on filing if the FARE program is approved by the Commission?

A. Yes. Included in the FARE Model filing are both schedules for the quarterly filing as well as the annual filing. Schedules are included in the FARE proposal and are discussed in Mr. Eichler's testimony and include the following schedules to be filed on an annual basis:[6]

- Calculation of Revenue Deficiency or Surplus
- Current rate base for Plant In Service ("PIS"), Accumulated Depreciation ("A/D"), Accumulated Deferred Income Tax ("ADITs"), Advances In Aid of

[5] See Mr. Peter Eichler's Testimony, Page 6
[6] See Mr. Peter Eichler's Direct Testimony, Page 7, Lines 1 - 12

Construction ("AIAC") / Contributions In Aid of Construction ("CIAC"), and other rate base factors

- Income Statement
- Operating Revenues
- Operating Expense Summary
- Depreciation Expense
- Taxes
- Rate Schedules

Q. What information will the Company provide on a quarterly basis to Commission Staff or other stakeholder or interested party?

A. Quarterly filings will be made to the Commission Staff or any other interested party and will include an abbreviated version of the annual filing. Quarterly schedules include Quarterly Profit/Loss Statement; Quarterly Balance Sheet; Quarterly Balance Sheet; Quarterly Operating Expense Summary; Quarterly Plant Schedules; Statement of Any Significant Plant Investment.

Q. Once the Company files its annual FARE increase request, what is the expected time frame in which a final decision is rendered?

A. The Company has laid out the following time line they are requesting for the FARE filing and final rate adjustment(s) as follows:

- Day 1 - Fare Filing

- Day 45 – Staff/Other Parties Review and Respond
- Day 60 – Company Reply Too Staff/Other Parties
- Day 90 – Evidentiary Hearing (if Necessary)
- Day 150 – Fare Order And Implementation of Rates

Q. We note that the listing of schedules to be provided during the quarterly and annual filings do not include cost of capital or rate design revisions. What has the Company proposed for these two critical components in setting the appropriate rates?

A. First, as stated in Mr. Eichler's testimony, "that would pretty much turn the annual FARE filing into a lengthy and time consuming general rate case. We are looking for a way to mitigate regulatory lag that does not require a general rate case every year. Second, absent a major change in circumstances, the rate design shouldn't need to be revaluated every year. The rate design approved in the general rate case approving the FARE can be applied to any revenue requirement. Third, while the cost of capital does change from year to year, and even within a year, we are trying not to make the process longer, unduly expensive or overly burdensome."[7]

[7] See Mr.Peter Eichler's Direct Testimony, Page 6

Q. What is RUCO's position on the lack of performing a cost of capital analysis at the time of requesting FARE rate adjustment?

A. This is in direct violation of the Arizona Constitution, determining a rate of return is a requirement of determining fair value.

VI. EFFECT ON RATEPAYERS

Q. Has the Company prepared a forecast of the expected dollar value(s) of the various projects they intend on including in the FARE request for each year if the FARE program is authorized by the Commission?

A. No. When RUCO asked that question the Company responded; "No. The FARE is intended to include all reasonable and prudent investment and operating expenses in rates. It is not intended to cover only certain specific capital projects."

Q. So basically, the Company could include any capital expenditure in its request for a FARE rate increase since the Company's proposal for a FARE program has no restrictions on projects or assets that can be included as FARE projects?

A. Yes. So long as it's considered a prudent investment it appears that any plant asset (i.e. mains, pumps, autos, land, small tools, computer equipment, etc., etc., etc.) can be included in a FARE rate increase.

VII. SUMMARY AND CONCLUSIONS

Q. Can you please summarize RUCO's position on the Company's request for a FARE program?

A. RUCO does not support the FARE program for many reasons. First and foremost is the FARE model does not incorporate a fair value determination at the time an adjustment is requested as required under the Arizona Constitution and confirmed by the Arizona Court of Appeals. RUCO believes that the Company is premature in its request as the Arizona Court of Appeals decision was heard by the Arizona Supreme Court and a decision is pending.

In addition to the question of fair value, there and numerous deficiencies in the Company's FARE model including: (1) The Company has not identified specific expenditures that would be considered for approval in a FARE filing. All prudent expenditures as stated by Company is not acceptable. (2) The time line proposed by the Company is overly aggressive. Based on the proposed, one filing for each year, this could involve as much work and review as a full rate case and to expect a turn-around time of 45 days in unreasonable. (3) The Company has not estimated the annual rate increases(s), consequently, ratepayers have no understanding of the effect on their annual rates between rate case filings.

Q. Mr. Mease, does this conclude your testimony?

A. Yes it does.

ATTACHMENT

ATTACHMENT 1

ROBERT B. MEASE, CPA, CRRA
Education and Professional Qualifications

EDUCATION

Bachelors Degree Business Administration / Accounting - Morris Harvey College.

Attended West Virginia School of Graduate Studies and studied Accounting and Public Administration

Attended numerous courses and seminars for Continuing Professional Educational purposes.

WORK EXPERIENCE

Controller
Knives of Alaska, Inc., Diamond Blade, LLC, and Alaska Expedition Company.

Financial Manager / CFO
All Saints Camp & Conference Center

Energy West, Inc.
Vice President, Controller

- Led team that succeeded in obtaining a $1.5 million annual utility rate increase
- Coached accountants for proper communication techniques with Public Service Commission, supervised 9 professional accountants
- Developed financial models used to negotiate an $18 million credit line
- Responsible for monthly, quarterly and annual financial statements for internal and external purposes, SEC filings on a quarterly and annual basis, quarterly presentations to Board of Directors and shareholders during annual meetings, coordinated annual audit
- Communication with senior management team, supervised accounting staff and resolved all accounting issues, reviewed expenditures related to capital projects
- Monitored natural gas prices and worked with senior buyers to ensure optimal price obtained

Junkermier, Clark, Campanella, Stevens
Consulting Staff

- Established a consulting practice that generated approximately $160k the first year of existence
- Prepared business plan and projections for inclusion in clients financing documents
- Prepared written reports related to consulting engagements performed
- Developed models used in financing documents and made available for other personnel to use
- Performed Profit Enhancement engagements
- Participated during audit of large manufacturing client for two reporting years

Prior to 1999, held various positions: TMC Sales, Inc. as **Vice President / Controller**, with American Agri-Technology Corporation as **Vice President / CFO** and with Union Carbide Corporation as **Accounting Manager. (Union Carbide was a multi-national Fortune 500 Company that was purchased by Dow Chemical)**

PROFESSIONAL AFFILIATIONS
Past Member - Institute of Management Accountants
Member - American Institute of CPA's
Member – Society of Utility and Regulatory Financial Analysts
Past Member –WV Society of CPA's and Montana Society of CPA's

RESUME OF RATE CASE AND REGULATORY PARTICIPATION WITH RUCO

Utility Company	Docket No.
Arizona Water Company (Eastern Group)	W-01445A-11-0310
Pima Utility Company	W-02199A-11-0329 et al.
Tucson Electric Power Company	E-01933A-12-0291
Arizona Water Company (Northern Group)	W-01445A-12-0348
UNS Electric	E-04204A-12-0504
Global Water	W-01212A-12-0309 et al.
LPSCO	SW-01428A-13-0042 et al.
Johnson Utilities	WS-02987A-13-0477
Johnson Utilities	WS-02987A-08-0180
APS	E-01345A-11-0224
EPCOR Water Arizona, Inc.	WS-01303A-09-0343
Utility Source, LLC	WS-04235A-13-0331
EPCOR Water Arizona, Inc.	WS-01303A-14-0010
EPCOR Water, Purchase of Willow Valley Water, Co.	W-01732A-15-0131
UNS Electric	E-04204A-15-0142

LIBERTY UTILITIES

(BELLA VISTA WATER & RIO RICO WATER & WASTEWATER)

DOCKET NOS. W-02465A-15-0367 et al.

DIRECT TESTIMONY

OF

JOHN CASSIDY

ON BEHALF OF THE

RESIDENTIAL UTILITY CONSUMER OFFICE

MAY 23, 2016

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EXECUTIVE SUMMARY

RUCO recommends that the Commission adopt a 7.31 percent overall rate of return for Liberty Utilities (Bella Vista Water and Rio Rico Water & Sewer) Corp. ("Company"), based upon (i) the Company's proposed pro forma capital structure consisting of 30.00 percent long-term debt and 70.00 percent common equity, (ii) the current 2.97 percent indicated cost of long-term debt,[1] and (iii) RUCO's recommended 9.17 percent cost of equity, as shown below:

	Weight	Cost	Weighted Cost
Long-Term Debt	30.00 %	2.97 %	0.89 %
Common Equity	70.00 %	9.17 %	6.42 %
Overall Rate of Return			7.31 %

RUCO's 9.17 percent cost of equity is derived from estimates obtained from three cost of equity estimation models, with the results obtained from the Discounted Cash Flow and Comparable Earnings Models assigned a weighting factor of 40 percent, and the results obtained from the Capital Asset Pricing Model assigned a weighting of 20 percent, as follows:

	Cost Estimate	Weight Factor	Weighted Average Cost Estimate
Discounted Cash Flow	8.80 %	40 %	3.52 %
Capital Asset Pricing Model	7.44 %	20 %	1.49 %
Comparable Earnings	10.40 %	40 %	4.16 %
Average Cost of Equity	8.88 %		
Weighted Average Cost of Equity			**9.17 %**

[1] In the Application, the Company proposes a 3.47 percent cost of debt. However, pursuant to the Term Sheet included in the Company's financing application, the indicated cost of debt will be the 30-day average yield on the 10-Year U.S. Treasury Note, plus an additional spread of 116 basis points. RUCO's recommended 2.97 percent cost of debt reflects the average yield on the 10-year Treasury in the month of April 2016 (1.81 percent) plus an additional 116 basis point spread (1.81% + 1.16% = 2.97%).

I will also demonstrate that the 10.8 percent and 11.6 percent cost of equity recommendations for Rio Rico and Bella Vista by Liberty Utilities witness, Mr. Thomas J. Bourassa significantly over-states the Company's actual cost of equity.

I. INTRODUCTION

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

A. My name is John A. Cassidy. I am a Public Utilities Analyst V with the Residential Utility Consumers Office ("RUCO"). My business address is 1110 W. Washington Street, Suite 220, Phoenix, AZ.

Q. Please describe your educational background and professional experience.

A. I hold a Bachelor of Arts degree in History from Arizona State University, a Master of Library Science degree from the University of Arizona, and a Master of Business Administration degree with an emphasis in Finance from Arizona State University. I have been awarded the professional designation Certified Rate of Return Analyst ("CRRA") by the Society of Utility and Regulatory Financial Analysts. This designation is awarded based upon experience and successful completion of a written examination. I am a member of Beta Gamma Sigma, the National Business Honor Society, and have passed the CPA exam, though I opted not to pursue certification. I have worked professionally as a librarian, financial consultant and tax auditor, and have over seven years of regulatory work experience as a Public Utilities Analyst with the Arizona Corporation Commission, where I served as a cost of capital witness on behalf of Staff testifying in numerous rate case proceedings. I have attended utility related seminars sponsored by both the National Association of Regulatory Utility Commissioners (NARUC), and the Society of Utility Regulatory Financial Analysts (SURFA). Attachment 1 contains a summary of my prior regulatory work experience.

Q. Please state the purpose of your testimony.

A. The purpose of my testimony is to present RUCO's recommendations for the establishment of a fair value rate of return. For purposes of establishing a fair value rate of return on its invested capital in this proceeding, the Company has elected to use its original cost rate base (OCRB) as its fair value rate base (FVRB).

Q. Will RUCO provide direct testimony on the rate base, operating income and rate design issues in this proceeding?

A. Yes. RUCO witness, Mr. Tim Coley, will also file direct testimony in this proceeding. Mr. Coley's testimony will address the rate base and operating income issues associated with the case, as well as RUCO's proposed rate design. In addition, Mr. Robert Mease will provide testimony on the Company's proposed Fair Value Arizona Rate Evaluation Model ("FARE").

II. SUMMARY OF TESTIMONY AND RECOMMENDATIONS

Q. Briefly summarize how your cost of capital testimony is organized.

A. My cost of capital testimony is organized into eleven (11) different sections as identified in my "Table of Contents." In summary I have derived cost of equity estimates obtained from both the Discounted Cash Flow ("DCF") model and the Capital Asset Pricing Model ("CAPM"). The DCF and CAPM are market-based cost of equity estimation models, and both have consistently been employed by RUCO and ACC Staff in prior rate proceedings. Additionally, both the DCF and CAPM are methodologies which the ACC has traditionally given the most weight when establishing authorized rates of return for utilities operating within its Arizona jurisdiction. In addition to the DCF and CAPM models, I have also

prepared a Comparable Earnings ("CE") analysis. For purposes of RUCO's recommended cost of equity in this proceeding, I have assigned a 40 percent weighting to the cost of equity results obtained from the DCF and CE models, and a 20 percent weighting to the cost of equity results obtained from the CAPM. The Company's witness, Mr. Thomas J. Bourassa, also obtains cost of equity estimates from both the DCF and CAPM models, as well as from a Risk Premium Model ("RPM"). My testimony will conclude with a discussion of Mr. Bourassa's cost of equity estimation methodologies, and I will demonstrate that his analyses significantly over-states the Company's actual cost of equity.

Q. Please explain the rationale for RUCO assigning a weighting of 40 percent to the cost of equity estimation results obtained from both its constant growth DCF and CE models and a 20 percent weighting to the cost of equity estimates obtained from the CAPM.

A. As noted in testimony filed by Staff cost of capital witness, Mr. David Parcell, in the recent Arizona Water Company ("AWC") rate docket,[2] cost of equity estimates derived from the CAPM are lower than estimates obtained from the DCF and CE models for two reasons: (i) risk premiums are currently lower than they have been over the past several years, and (ii) yields on U.S. Treasury bonds (i.e., the risk-free rate) have also been lower in recent years. Although Mr. Parcell elected not to incorporate estimates derived from the CAPM into his analysis for purposes of his recommended cost of equity, he nevertheless maintains that results obtained from the CAPM should be considered as a factor in

[2] *See* Docket No. W-01445A-15-0277, Direct Testimony of David C. Parcell, dated March 11, 2016, pp. 30-31.

determining the cost of equity. RUCO agrees with this assessment. Therefore, rather than relying upon the arithmetic mean cost of equity estimate derived from its DCF, CE and CAPM models as it has traditionally done, RUCO has elected to assign a 40 percent weight to the results obtained from both its DCF and CE models, and a 20 percent weight to the cost of equity results from the CAPM. RUCO believes this modification to its cost of equity methodology to be both reasonable and equitable, as it gives recognition to the lower cost of equity estimates derived from the CAPM, while providing for an incremental increase to RUCO's overall recommended cost of equity estimate.

Q. Please summarize the recommendations and adjustments that you will address in your testimony.

A. Based on the results of my analysis, I am making the following recommendations:

I recommend that the Commission adopt a 7.31 percent overall rate of return for the Company. The components included in my cost of capital calculation include:[3]

	Weight	Cost	Weighted Cost
Long-Term Debt	30.00 %	2.97 %	0.89 %
Common Equity	70.00 %	9.17 %	6.42 %
Overall Rate of Return			7.31 %

The cost of equity estimates included in my calculations are derived from the following three cost of equity models, with the results obtained from the DCF and CE models assigned a weighting factor of 40 percent, and the results obtained from the CAPM assigned a weighting of 20 percent:[4]

[3] *See* JAC Schedule 1.
[4] *See* JAC Schedule 2.

	Cost Estimate	Weight Factor	Weighted Average Cost Estimate
Discounted Cash Flow	8.80 %	40 %	3.52 %
Capital Asset Pricing Model	7.44 %	20 %	1.49 %
Comparable Earnings	10.40 %	40 %	4.16 %
Average Cost of Equity	8.88 %		
Weighted Average Cost of Equity			**9.17 %**

III. ECONOMIC PRINCIPLES APPLICABLE TO ARIZONA

Q. What are the basic economic principles which apply in the determination of a fair rate of return for regulated public utilities in Arizona?

A. For regulated public utilities in Arizona, rates are established in a manner designed to allow for recovery of the utility's costs, including capital costs. This is traditionally referred to as "cost of service" ratemaking. Rates are established using the "rate base – rate of return" concept, wherein utilities are allowed to recover specific operating expenses, taxes and depreciation, and granted an opportunity to earn a fair value rate of return on the assets utilized (i.e., fair value rate base) in providing service to ratepayers. Rate base is derived from the asset side of the utility's balance sheet, while rate of return is developed from the liability/stockholders' equity side of the balance sheet. The revenue impact of the cost of capital in rates is determined by multiplying rate base by rate of return. In the instant docket, RUCO is recommending an overall rate of return for both Liberty Bella Vista and Liberty Rio Rico of 7.31 percent.

Q. Is the Company proposing that its original cost rate base also be used as its fair value rate base?

A. Yes.

Q. What is the meaning of a "fair rate of return" when analyzing a rate case application?

A. From an economic standpoint, a "fair rate of return" is one which allows an efficient and economically well managed utility the ability 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. From a technical perspective, a "fair rate of return" is an ex post (after the fact) earned return on an asset base. Conversely, the cost of capital is an ex ante (before the fact) expected, or required, return on a capital base. In regulatory proceedings, the two terms are often used interchangeably.

Q. As regulated entities granted natural monopoly status, are public utilities guaranteed to earn their authorized rate of return?

A. No. Public utilities are afforded an opportunity to earn their authorized rate of return, they are not guaranteed to earn the rate of return authorized in a rate case. Many factors are involved in determining a rate of return. However, investments in new plant assets made subsequent to a rate case and/or increases to operating expenses between rate cases can have a negative impact on a utility's realized rate of return. Conversely, an increase in revenues and/or a decrease in operating expenses can have a positive impact on the earned rate of return. In the former scenario, a public utility will generally file for a rate increase. In the latter scenario, should a public utility earn a rate of return in excess of that approved by a utility commission, then the commission may instruct the utility to file a rate application in order that new rates be established to provide rate relief to ratepayers.

IV. GENERAL ECONOMIC CONDITIONS

Q. Can you please explain how general economic and financial conditions are considered in the determination of the cost of capital for a public utility?

A. Yes. The cost of capital is determined in part by the current and future economic and financial conditions. The level of economic activity, the stage of the business cycle, the trend in interest rates, and the level of inflation or expansion all play an important factor in determining the cost of capital. While there are other factors involved these are the most important and at any point in time each can have an influence on the cost of capital. The general economic indicators which influence the cost of capital are presented in Schedule JAC-6 (Pages 1-7).

Q. Briefly describe the recent trends in economic conditions and their impact on capital costs over the past thirty years?

A. Since the early 1980's through the end of 2007 the United States economy had been relatively stable. This period was characterized by longer economic expansions, small contractions, low and/or declining inflation, and declining interest rates and other capital costs. However, in 2008 and 2009, the economy declined as a result of the mortgage crisis and had a negative effect on the financial markets both in the US and international financial markets. This decline was described as the worst financial crisis since the Great Depression and has been referred to as the "Great Recession." Since 2008, central banks in the U.S. (i.e., the Federal Reserve Bank) and other foreign countries have initiated accommodative monetary policies designed to stimulate economic growth and reduce unemployment in an effort to recover from this worldwide recession.

The recession bottomed out in mid-2009 and since that time the economy has begun to expand again, initially at a slow pace but at a more rapid rate in recent months. This is evidenced by the national unemployment rate falling from 7.4 percent in 2013 to 5.3 percent in 2015. At the State level, however, Arizona's unemployment rate continues to lag that of the nation, and as of March 2016 stood at 5.4 percent.[5] The length of this most recent recession and the slow recovery indicate that the impact may be felt for an extended period of time.

Q. Please describe how the economic and financial indicators were examined and how they relate generally to the cost of capital.

A. Schedule JAC-6 (Pages 1 and 2) identifies relevant economic data such a Real Gross Domestic Product ("GDP") Growth, Industrial Production Growth, Unemployment, Consumer Price Index ("CPI") and Producer Price Index. As can be seen, 2007 marked the sixth year of economic expansion, but beginning in 2008 the economy entered into a significant decline, as indicated by negative real GDP and industrial production growth as well as an increase in the unemployment rate. Since 2010 the economy has begun to rebound; however, overall economic growth has continued at a slower pace than that in prior expansions following an economic downturn.

Since 2008 inflation, as measured by the CPI, has been 3.0 percent or lower, and in each of the last two years, it has remained below 1.0 percent, with the annual rate of inflation being 0.8 percent in 2014 and 0.7 percent in 2015. The annual rate of inflation has

[5] United States Department of Labor, Bureau of Labor Statistics, Arizona Unemployment Rate http://www.bls.gov/eag/eag.az.htm

generally been declining over the past several business cycles and continues to do so as evidenced by the low annual inflation rates of the last four years, 2012-2015. At present, inflation is at the lowest level experienced in the past 40 years, and is indicative of lower capital costs.

Q. Over the next 10-year period, is inflation expected to remain at relatively low levels?

A. Yes. In a report issued by the Federal Reserve Bank of Cleveland, the latest estimate of 10-year expected inflation is 1.71 percent.[6]

Q. How does this 10-year (i.e., 2016-2025) projected 1.71 percent annual rate of inflation compare to 10-year historical annual average rates of inflation over the last forty years (i.e., 1976-2015)?

A. Based on the annual rates of inflation as presented in Schedule JAC-6 (Page 1), the annual average inflation rate[7] measured over a 10-year historical period going back to 1976 are as follows:

Historical annual rate of inflation (1976-1985)	7.05 %
Historical annual rate of inflation (1986-1995)	3.45 %
Historical annual rate of inflation (1996-2005)	2.53 %
Historical annual rate of inflation (2006-2015)	1.86 %
Projected annual rate of inflation (2016-2025)	1.71 %

As can be seen, historical annual inflation has fallen in each of the last four 10-year periods, and this trend is expected to continue as evidenced by projected annual inflation

[6] Federal Reserve Board of Cleveland, "Inflation Expectations," (News Release dated April 14, 2016). https://www.clevelandfed.org/our-research/indicators-and-data/inflation-expectations.aspx

[7] The historical annual inflation rates presented are computed as an arithmetic mean (i.e., simple average) over each 10-year period.

over the period, 2016-2025, being 15 basis points lower than that of the most recent 10-year period, 2006-2015 (1.86% - 1.71% = 0.15%).

Q. Holding all other factors constant, does a projected annual inflation rate of 1.71 percent over the next 10-year period suggest that the current low interest rate environment will continue into the future?

A. Holding all other factors constant, yes.

Q. What have been the trends in interest rates over the forty-year period, 1975-2015?

A. Schedule JAC-6 (Pages 3 – 4) shows that interest rates rose sharply to record levels in 1975-1981, when the inflation rate was high and generally rising. Interest rates declined substantially, as did inflation, during the remainder of the 1980s and throughout the 1990s. Interest rates declined even further from 2000-2005, and after trending slightly upward in years 2006-2008, continued on a downward path reaching levels in years 2009-2015 not previously seen since the early 1960s. In 2008, the Federal Reserve (the "Fed") initiated an accommodative monetary by lowering the federal funds ("Fed Funds") rate (the rate the Fed charges banks for overnight transfers of funds), and in an effort to promote increased lending and liquidity, eventually initiated a policy of quantitative easing, an unconventional monetary policy used when short-term interest rates are at or approaching zero. As a consequence, in years 2012-2015, both U.S. and corporate bond yields declined to their lowest levels in more than 40 years. While interest rates have risen slightly from their lows of 2012, both government and corporate lending rates remain at historically low levels through 2015, again reflective of lower capital costs. On December 16, 2015, the Fed raised the Fed Funds rate from a level of 0 to ¼ percent to ¼ - ½

percent. Since doing so, however, yields on medium- and longer-term (i.e., 5-, 7-, 10-, 20- and 30-year) U.S. Treasury securities have continued to fall due to heavy demand by investors; a circumstance which suggests that today's low interest rate environment may continue into the future.[8]

Q. Did the action taken by the Fed to raise the Fed Funds rate in December 2015 signal a change in monetary policy by the U.S. central bank?

A. No, it did not. While the increase to the Fed Funds rate marked the first time the Fed had increased the rate it charged banks for overnight transfers of funds since mid-2006,[9] in a press release issued on December 16, 2015, the Fed made the following statement: "The stance of monetary policy remains accommodative after this increase, thereby supporting further improvement in labor market conditions and a return to 2 percent inflation."[10]

Q. What trends do the economic indicators suggest for common share prices?

A. As shown in Schedule JAC-6 (Pages 5 and 6), stock prices were stagnant during the high inflation/high interest rate environment of the late 1970s and early 1980s. In 1983, however, equity prices began to rise steadily, particularly as measured by the Dow Jones Industrial Average ("DJIA"), before peaking in 2007. With the onset of the Great Recession in 2008, equity prices declined sharply from their highs of 2007, reaching a low

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[8] As of the close of market on Wednesday, December 16, 2015, the day the Federal Reserve hiked the Fed Funds rate, yields on the 5-, 7-, 10-, 20- and 30-year Treasury securities were 1.75%, 2.11%, 2.30%, 2.65%, and 3.02%, respectively. As of the close of market on Thursday, February 11, 2016, yields on these same 5-, 7-, 10-, 20- and 30-year Treasury securities were 1.11%,1.39%, 1.63%, 2.06%, and 2.50%, respectively.

[9] The Fed last raised the Fed Funds rate on June 29, 2006. http://www.federalreserve.gov/monetarypolicy/openmarket.htm

[10] Federal Reserve Board, Federal Open Market Committee, *Press Release* (December 16, 2015). http://www.federalreserve.gov/newsevents/press/monetary/20151216a.htm

in the first quarter of 2009. Beginning in the third quarter of 2009, equity prices again began to rise, eventually recovering the losses sustained as a consequence of the "crash" in 2008 and, as evidenced by the performance of the DJIA, the S&P 500 Composite Index ("S&P 500"), and the NASDAQ Composite Index ("NASDAQ"), went on to reach new all-time highs in the fourth quarter of 2015. Following the action taken by the Fed to raise the Fed Funds rate, the equity markets experienced a sell-off, but all three major stock indices have since risen from their lows of February 11, 2016.[11]

Q. We are now in the seventh year of recovery from the Great Recession. Is it possible that the U.S. economy could fall into recession in late-2016?

A. Yes. In fact, research analysts at CitiGroup forecast a 65 percent probability of the U.S. economy entering into recession–defined as two consecutive quarters of shrinking economic growth–later this year.[12] CitiGroup analysts predict (i) a global growth recession in 2016 as a consequence of the continued economic downturn in China, and (ii) recession in the U.S. caused by a rapid flattening of the bond yield curve towards inversion, with "curve inversion coming more quickly than the consensus thinks."[13] As another observer has expressed it, "[t]he odds of a recession in 2016 may be less than 50%, but not by much. And in 2017, the odds shift."[14]

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[11] On February 11, 2016, the DJIA closed at 15,660.18, the S&P 500 closed at 1,829.08, and the NASDAQ closed at 4,266.84. On May 3, 2016, these three market indices closed at 17,750.91, 2,063.37, and 4,763.22, respectfully.
[12] Sherter, Alain, "Will the U.S. Economy Slip into Recession in 2016?," *Money Watch* (December 23, 2015). http://www.cbsnews.com/news/will-the-u-s-economy-slip-into-recession-in-2016/
[13] McGeever, Jamie, "Watch for U.S. Recession, Zero Interest Rates in China next Year, Citi Says," *Reuters* (December 2, 2015). http://www.reuters.com/article/us-global-economy-idUSKBN0TL18F20151202
[14] Murray, Alan, "Is 2016 the Year of the Next Recession?," *Fortune.com* (January 11, 2016). http://fortune.com/2016/01/11/stock-market-recession-2016/

Q. In setting monetary policy, what is the Fed's stated long-term objective?

A. Consistent with its statutory mandate, when setting monetary policy the long-term objective of the Fed's Federal Open Market Committee ("FOMC") is two-fold: (i) maximum employment, and (ii) price stability (i.e., inflation of 2.0 percent).[15]

Q. So in the event the U.S. economy went into recession in either 2016 or 2017 and the unemployment rate were to rise, the Fed might once again have to take steps to stimulate economic growth in order to achieve full employment, correct?

A. Yes, in keeping with its statutory mandate to achieve full employment, the Fed might well have to do that.

Q. Has Fed Chairperson Yellen made statements to the effect that the Fed would again consider lowering the Fed Funds rate in order to stimulate economic growth?

A. Yes. When testifying before the Joint Congressional Economic Committee ("Committee") in early December 2015 (i.e., prior to the hike in the Fed Funds rate), Ms. Yellen downplayed the possibility of a recession in the U.S. economy but specifically acknowledged the risk of a global economic recession, stating that a hike in the Fed Funds rate would give the Fed "the flexibility to lower it if those risks cause the economy to falter in the future."[16] Subsequently, when testifying before the Committee on February 11, 2016, Ms. Yellen "conceded that there's a 'chance' of a downturn ahead," and indicated

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[15] Federal Reserve Board, Federal Open Market Committee, *Press Release* (April 27, 2016). http://www.federalreserve.gov/newsevents/press/monetary/20160427a.htm

[16] Puzzanghera, Jim, "Downplaying Risk of Recession, Yellen Indicates an Interest Rate Hike is Coming this Month," *Los Angeles Times* (December 3, 2015). http://www.latimes.com/business/la-fi-yellen-congress-20151203-story.html

that the Fed "is studying whether **negative interest rates** would help should conditions worsen (emphasis added)." Ms. Yellen went on to say the following:

> "In light of the experience of European countries and others that have gone to **negative rates**, we're taking a look at them again, because **we would want to be prepared in the event that we would need (to increase) accommodation**."[17]

In further testimony before the Committee, Ms. Yellen acknowledged that Fed officials had been "caught off guard" by (i) the degree to which "[m]arkets have been tumbling as oil prices plunge, with traders now pricing in the chance that **the Fed's next move could be a rate cut rather than hike**;" and (ii) the persistent strength of the greenback, as the dollar movement is "not something we anticipated."[18]

Q. Since testifying before Congress, has Fed Chairman Yellen made additional public comments relating to the outlook for the U.S. economy and monetary policy?

A. Yes. In a speech delivered to the Economic Club of New York,[19] Chairman Yellen laid out the view that the Federal Open Market Committee ("FOMC") continues to expect

1) Moderate economic growth over the medium term; and
2) Further labor market improvement and a return of inflation to the Fed's 2.0 percent objective over the next two or three years.

However, Chairman Yellen frequently qualified her remarks by acknowledging that "global developments pose ongoing risks," pointing out that "manufacturing and net exports

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[17] Cox, Jeff, "Yellen on Negative Rates: 'We Wouldn't Take those off the Table,'" (February 11, 2016). http://www.cnbc.com/2016/02/11/fed-chair-yellen-theres-always-some-chance-of-recession.html
[18] *Ibid.*
[19] Yellen, Janet, "The Outlook, Uncertainty, and Monetary Policy," a speech delivered to the Economic Club of New York, March 29, 2016. https://www.federalreserve.gov/newsevents/speech/yellen20160329a.htm

continue to be hard hit by slow global growth and the significant appreciation of the dollar since 2014." Furthermore, while it is her judgment that "inflation expectations are well anchored," Chairman Yellen acknowledges that "the decline in some indicators has heightened the risk that this judgment could be wrong," and if so, a return to the Fed's desired 2 percent rate of inflation could take longer than expected and "require a more accommodative stance of monetary policy." Accordingly, in the speech Chairman Yellen states that only "gradual increases in the federal funds rate are likely to be warranted in coming years."

Q. You point out that Fed Chairman Yellen and the FOMC continue to anticipate a return of inflation to the Fed's 2.0 percent objective over the next two or three years. Does the market agree with the Fed on this point?

A. No. As expressed by one market pundit, "the market and the Federal Reserve have very different views on where inflation will go from here. The Fed sees it moving pretty quickly from today's lows back to the Fed's two percent target. The market, on the other hand, doesn't see inflation rising near the Fed's goals anytime in the next decade."[20]

Q. If inflation were to remain below two percent for the next decade, would it be difficult for the Fed to justify raising short-term rates over such an extended period of time?

A. Yes, and this would be true "regardless of how low the unemployment rate falls."[21]

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[20] Matthews, Chris, "The Market Doesn't Believe Janet Yellen," *Fortune*, March 30, 2016. http://fortune.com/2016/03/30/janet-yellen-fed-interest-rates/

[21] Matthews, Chris, "Janet Yellen Says Inflation is Coming Soon," *Fortune*, March 29, 2016. http://fortune.com/2016/03/29/yellen-inflation/

Q. As evidence of the recent strength in the U. S. economy, in her speech Chairman Yellen alludes to the fact that over the last three months the labor market has added an average of almost 230,000 jobs per month.[22] Did job growth decline significantly from these levels in the month of April 2016?

A. Yes. In April 2016, the U.S. economy added the fewest number of jobs in seven months, as nonfarm payrolls increased by only 160,000 jobs, with the decline attributed to "weak economic growth, subdued productivity and corporate profits."[23]

Q. Is there reason to believe that as a consequence of this downturn in job growth, the Fed may delay or otherwise postpone a planned hike in the federal funds rate?

A. Yes. The slowdown in hiring prompted economists at several Wall Street banks (i.e., Bank of America, Merrill Lynch, and Barclays) to lower their expectations for additional Fed rate hikes this year (i.e., 2016) from two, to one.[24] However, as evidenced by positions taken by traders in the Fed funds futures market, most investors now anticipate that the Fed won't raise short-term interest rates until February 2017 at the earliest.[25]

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[22] *Ibid.*
[23] Mutikani, Lucia, "Smallest U.S. Job Gains in Seven Months Temper Rate Expectations," Reuters (May 6, 2016). http://www.reuters.com/article/us-usa-economy-idUSKCN0XX0A3
[24] *Ibid.*
[25] Lamarque, Kevin, Traders bet Fed won't Raise Interest Rates until 2017," Reuters (May 6, 2016). http://www.reuters.com/article/us-usa-fed-futures-idUSKCN0XX17J?mod=related&channelName=ousivMolt

Q. Are the yields on long-term (i.e., 10-, 20- and 30-year) U.S. Treasury debt securities higher, or lower, than they were at the time the Fed hiked the federal funds rate in December, 2015?

A. Without exception, yields on longer-term U.S. Treasury debt securities have fallen from the levels they were trading at when the Fed raised the federal funds rate in December 2015. Bond yields fall when the price of the bond rises, which suggests that investor demand for the 10-year U.S. Treasury Note as well as the 20- and 30-year U.S. Treasury Bond has been strong despite the action taken by the Fed to hike short-term rates.

Q. Earlier you noted that on February 11, 2016 the equity markets experienced a sharp sell-off. In market trading on that day was there strong investor demand for U.S. Treasury debt securities, and if so, why?

A. Yes, demand was very strong, as evidenced by the yield on the benchmark 10-year U.S. Treasury Note having fallen to its lowest level in more than three years—in intraday trading it reached a level of 1.53% and closed at a level of 1.64%, down from its prior day close of 1.706%. The strong investor demand was attributed to growing anxiety over the global economic outlook, with U.S. Treasury securities being viewed as "haven assets."[26]

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[26] Zeng, Min, "U.S. Government Bond Yields Plummet as Markets Rush to Havens," February 11, 2016. https://www.morningstar.com/news/dow-jones/TDJNDN_201602119904/us-government-bond-yields-plummet-as-markets-rush-to-havens.html

Q. Has the yield on the benchmark 10-year U.S. Treasury Note remained at or near the levels reached in market trading on February 11, 2016?

A. No, it has not. Since that date, the yield on the 10-year U.S. Treasury Note has traded as high as 1.98% (i.e., closing yield on March 11, 2016), and is currently trading at a level of 1.73% (i.e., closing yield on May 11, 2016).[27]

Q. Do market analysts expect the yield on the 10-year U.S. Treasury Note to remain at current levels, or to trend lower?

A. As evidenced by a research note just issued to investors by CitiGroup, Wall Street analysts now say the yield on the 10-year Treasury Note is "going lower," and view a test of the 1.50% level as being "highly likely," given that "U.S. rates are still high" when viewed in the context of yields on comparable 10-year sovereign debt issued by foreign governments:

> We are partial to the view that a test of 1.50% is highly likely. 1.50% on 10s might look like we are pressing onto all-time lows from 2012. Looked in isolation, it may appear to be the case. **However, when looked at from a different angle, i.e. in the context of spreads to other sovereign curves, it becomes clear that US rates are still high. 1.50% in 10y rates would not be anywhere close to the yield differentials that existed with the rest of the world in 2012. Take Japan as an example. The yield pickup of USTs over 10y JGBs for example was 65bp in 2012 vs. a meaty 185bp now.**[28]

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[27] U.S. Department of the Treasury, Daily Treasury Yield Curve Rates. https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=yield

[28] Garber, Jonathon, "CITI: The 10-Year Yield is Going Back Toward Record Lows, but This Time is Different," *Business Insider*, May 9, 2016. http://www.businessinsider.com/citi-says-10-year-yield-to-retest-lows-2016-5

As can be seen, as justification for its assertion that "U.S. rates are still high," Citi Research's rates team point to the current 185 basis point yield differential between the 10-year Japanese government bond ("JGB") and the 10-year U.S. Treasury Note.

Q. Has the Japanese central bank initiated negative interest rates and, if so, does this in part explain the current 185 basis point yield differential between the 10-year JGB and the U.S. Treasury Note?

A. Yes, the Japanese central bank adopted negative interest rates as a monetary policy measure intended to stimulate economic growth in late January 2016.[29] Negative interest rates, in combination with the Japanese central bank's policy of quantitative easing, in part explain the current 185 basis point yield differential between the 10-year Treasury and the 10-year JGB. It should further be noted that the yield on the 10-year JGB first dropped below zero percent in market trading the week of February 8-12, and was a factor contributing to the strong investor demand for the 10-year U.S. Treasury on February 11, 2016.[30]

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[29] Chandran, Nyshka, "Bank of Japan Adopts Negative Interest Rate Policy," *CNBC* (January 29, 2016). http://www.cnbc.com/2016/01/28/

[30] Moore, Elaine, "Government Bond Prices Surge on Haven Demand, *Financial Times*, February 11, 2016. http://www.ft.com/intl/cms/s/0/b42f81a6-d0aa-11e5-831d-09f7778e7377.html#axzz48N4pVSO2

Q. Have central banks in other foreign countries initiated negative interest rates as a monetary policy designed to stimulate economic growth?

A. Yes, four central banks in Europe—the European Central Bank, the Danish Nationalbank, the Swedish Riksbank, and the Swiss National Bank—have initiated and maintained a negative interest rate monetary policy for a period of one year or more.[31]

Q. Would 10-year bonds issued by the above four European central banks have similar high yield differentials when compared to the yield on the 10-year U.S. Treasury note?

A. Yes.

Q. Although the German central bank has not adopted negative rates, the yield on the 10-year German bund is currently very low (i.e., in trading on May 11, 2016, it closed at a yield of 0.121 percent). Does the yield differential between the 10-year German bund and the 10-year Treasury portend of continued high demand for the 10-year U.S. Treasury note?

A. Yes, because the yield on the 10-year U.S. Treasury note continues to be high relative to the yield on the 10-year German bund. It should be noted that the same can be said of 10-year bonds issued by other European governments who have not yet initiated negative interest rates, albeit to a lesser extent.[32]

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[31] Bech, Morten and Malkhozov, Aytek, "How Have Central Banks Implemented Negative Policy Rates?" *Bank for International Settlements (BIS) Quarterly Review*, March 2016, pp. 31-44. http://www.bis.org/publ/qtrpdf/r_qt1603e.htm

[32] At present (i.e., May 11, 2016), the current yield on the 10-year bond issued by the governments of France, the United Kingdom and Italy are 0.4791%, 1.386%, and 1.4742%, respectively. http://www.cnbc.com/bonds

Q. Are there other reasons to expect that yields on long-term Treasury securities will continue to go lower?

A. Yes, there are four reasons which have been identified.[33] First, U.S. Government backed Treasury securities are viewed as "haven assets," and as such analysts expect there to be a continued global flight-to-quality into U.S. Treasuries, particularly the 10-year note. Second, following Fed Chairman Yellen's most recent public comments (i.e., speech to Economic Club of New York), investors view the Fed as being more "dovish," as she stressed the need for a cautious approach to raising short-term interest rates, citing the risks associated from a slowdown in global growth. Third, yields on long-term Treasury securities are mostly influenced by projections of growth and inflation within the U.S. economy, and not by actions taken by the Fed to control the front-end of the yield curve. Given that current expectations for both growth in the U.S. economy and inflation are subdued, the "term premium" associated with holding long-term bonds is lower than it would be during periods of higher economic growth and inflation, which in turn should allow for yields on long-term Treasury securities to go lower, as well. Lastly, analysts anticipate that due to negative yields on sovereign debt issued in Europe and Japan, and in the case of the German bund whose yield is low in the absence of negative rates, investor demand for U.S. Treasury securities will continue to be strong, further keeping downward pressure on yields.

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[33] Ismailidou, Ellie, "Four Reasons Why Treasury Yields are Hurtling Lower," *MarketWatch* (April 6, 2016). http://www.marketwatch.com/story/4-reasons-why-treasury-yields-are-hurtling-lower-2016-04-06

Q. You indicated that a stated objective of the Fed is to achieve price stability, defined as an inflation rate of 2.0 percent. Does the market expect inflation to be a problem for the U.S. economy anytime soon?

A. No.[34]

Q. How do American's feel about the prospects for the U.S. economy in the coming year (i.e., 2016)?

A. According to a new survey conducted by the Pew Research Center, Americans are "less optimistic about how well the economy will fare over the next year than they were last January."[35]

Q. What conclusions can be drawn from the above discussion of economic and financial conditions as they relate to the cost of capital?

A. Despite the Federal Reserve having raised the Fed Funds rate in December 2015, I believe the probability of continued rate hikes in 2016 and 2017 to be low. Fed Chairperson Yellen has indicated a willingness to raise short-term interest rates in the event the U.S. economy should go into recession, and should circumstances warrant additional monetary policy accommodation, a willingness to consider use of negative interest rates, as well. Thus, while the U.S. economy is stronger today than it was in 2008-2009, expected investment returns have declined since the onset of the Great Recession of 2008, and given the prospects of lower growth and continued low inflation

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[34] Matthews, Chris, "The Market Doesn't Believe Janet Yellen," *Fortune*, March 30, 2016. http://fortune.com/2016/03/30/janet-yellen-fed-interest-rates/

[35] "As election Year Nears, Public Sees Mixed Economic Picture," Pew Research Center (December 22, 2015). http://www.people-press.org/2015/12/22/as-election-year-nears-public-sees-mixed-economic-picture/

there is good reason to believe that interest rates, and hence the cost of capital, would be expected to remain at or near current levels for the next several years.

V. CAPITAL STRUCTURE AND COST OF DEBT

Q. What is the Company's proposed capital structure for Liberty (Bella Vista) and Liberty (Rio Rico)?

A. As shown in Schedule D-1, both Bella Vista and Rio Rico propose a pro forma capital structure consisting of 30 percent long-term debt and 70 percent common equity.

Q. What is the current capital structure for both Liberty (Bella Vista) and Liberty (Rio Rico)?

A. At present, Rio Rico has a capital structure consisting of 100.00 percent common equity. However, Bella Vista's capital structure presently consists of 89.68 percent common equity and 10.32 percent long-term debt. As shown in Schedule D-2, the debt component in Bella Vista's capital structure consists of two Water Infrastructure Financing Authority of Arizona ("WIFA") loans, with WIFA #1 consisting of $50,106 of outstanding debt at an effective annual interest rate of 6.10 percent, and WIFA #2 consisting of $940,491 of outstanding debt at an effective annual interest rate of 6.26 percent.

Q. Concurrent to the filing of its rate applications for Bella Vista and Rio Rico in this consolidated docket, did Liberty also file a financing application for each system?

A. Yes.

Q. Have the Company's rate and financing applications been consolidated in this docket?

A. Yes.[36]

Q. As contemplated in the filings made to this docket, does the Company propose the same pro forma cost of debt for both Bella Vista and Rio Rico?

A. Yes, as shown in Schedule D-1 filed in the rate application for each system, the projected capital structure for both Bella Vista and Rio Rico indicate an anticipated cost of debt of 3.47 percent.

Q. Did RUCO issue a data request to the Company to clarify how the Company planned to dispose of Bella Vista's existing WIFA debt in order to allow for Bella Vista and Rio Rico to have the same cost of debt on a going-forward basis?

A. Yes. In response to RUCO 4.12, the Company indicated that it planned to pre pay the outstanding principal balance of both the WIFA #1 and WIFA #2 loans, thereby allowing Bella Vista and Rio Rico to have the same cost of debt going forward.

Q. How was the 3.47 percent cost of debt proposed by the Company arrived at?

A. Pursuant to information provided in the term sheet included in the financing applications filed for both Bella Vista and Rio Rico, the interest rate on the proposed cost of debt is pegged to the yield on the 10-year U.S. Treasury note, with the fixed annual rate to be equal to the average 10-year Treasury rate as published on Bloomberg Financial Markets

[36] See Docket No. W-02465A-15-0337, et al., "Procedural Order," dated December 24, 2015.

for the prior 30 days plus a percentage spread equal to the indicative 10-year spread on Liberty Utilities' most recent private placement financing.

Q. Did RUCO issue a data request asking the Company to quantify the "indicative 10-year spread on Liberty Utilities' most recent private placement financing," and if so, what was that 10-year spread?

A. Yes, RUCO asked this question in RUCO 4.14. In response, the Company indicated the 10-year indicative spread noted on the most recent private placement financing was 1.16 percent (i.e., 116 basis points). Thus, the actual cost of debt in this docket will equate to the average yield on the 10-year U.S. Treasury Note over a 30-day period at the time the loan proceeds are drawn down, plus an additional spread of 116 basis points.

Q. What is the stated purpose of the Company's proposed financings for Bella Vista and Rio Rico?

A. As noted in the financing applications for both Rio Rico and Bella Vista, the purpose is to effectuate a rebalancing of the capital structure for both systems to 70 percent equity and 30 percent long-term debt.

Q. Please describe the Company's proposed long-term debt.

A. The proposed long-term debt will be 10-year term, non-amortizing debt, with interest to be paid semiannually, and the principal balance on the Note due and payable ten years from the date of closing.

Q. What is the Company's proposed cost of debt?

A. As shown in Schedules D-1 and D-2, the Company proposes a cost of debt of 3.47 percent.

Q. Is RUCO supportive of the Company's desire to rebalance its capital structure?

A. Yes, as debt capital is less costly than equity capital, and residential ratepayers will benefit from a lower revenue requirement for both Bella Vista and Rio Rico.

Q. What is RUCO's recommended cost of debt in this proceeding?

A. RUCO recommends a cost of debt of 2.97 percent for both Bella Vista and Rio Rico. RUCO's recommended cost of debt reflects the recent average yield on the 10-year U.S. Treasury Note in the month of April, 2016 (i.e., 1.81 percent), plus the indicative 10-year spread (i.e., 1.16 percent) on Liberty Utilities' most recent private placement financing (1.81% + 1.16% = 2.97%).

VI. SELECTION OF PROXY GROUP

Q. Was RUCO able to directly estimate the cost of common equity for Liberty (Bella Vista) and Liberty (Rio Rico)?

A. No. The common stock of Bella Vista and Rio Rico is not publicly-traded, and thus it is not possible to directly estimate the cost of common equity. Therefore, RUCO employed a proxy group of publicly-traded water utility companies to indirectly estimate the Company's cost of equity utilizing financial market data available for each sample company.

Q. What publicly-traded water utility companies has RUCO selected for inclusion in its proxy group?

A. RUCO's proxy group consists of the following nine publicly-traded water utility companies: American States Water, American Water Works, Aqua America, Artesian Resources, California Water, Connecticut Water, Middlesex Water, SJW Corp., and York Water. These nine water utilities comprise the entire universe of publicly-traded water utility companies followed by both the Standard Large-Cap, and the Small and Mid-Cap, editions of *The Value Line Investment Survey*. Attachment 2 contains the most recent *Value Line* quarterly update for each of RUCO's nine proxy companies.

Q. For purposes of his analysis, does the Company's cost of capital witness employ the same proxy group as that of RUCO?

A. No. The company's witness, Mr. Bourassa, employs a proxy group of only seven companies. For purposes of his analysis, Mr. Bourassa excludes both American Water Works and Artesian Resources from his proxy group of sample companies.

VII. DCF 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 COE for public utilities, and the only one which intrinsically takes into consideration the price investors are willing to pay for a given unit of return. The DCF 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 and the following formula will generate the cost of capital.

$$K = \frac{D}{P} + g$$

Where: K = cost of equity
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 RUCO employed the DCF model.

A. For purposes of its analysis, RUCO employed the constant growth DCF model. In doing so, RUCO combined the current dividend yield for each proxy group utility stock with several indicators of expected dividend growth.

Q. How did RUCO derive the dividend yield component of the DCF equation?

A. Several different methods can be used to compute the dividend yield component in the constant growth DCF model. However, for purposes of its analysis RUCO utilized the Gordon quarterly compounding method to compute the dividend yield component, as it gives recognition to the timing of dividend payments and dividend increases. The Gordon quarterly compounding method is expressed as follows:

$$Yield = \frac{D_0(1+0.5g)}{P_0}$$

The current (P_0) stock price in my yield calculation represents the average of the high and low stock price for each proxy company for the most recent three month period (February – April, 2016). The current (D_0) dividend is the current annualized dividend rate for each proxy company.

Q. How does RUCO estimate the dividend growth (g) component of the DCF equation?

A. In estimating the dividend growth rate in its DCF analysis, RUCO gives consideration to the following five indicators of growth:

1. Five-year average (2011-2015) earnings retention (i.e., fundamental) growth, as reported by *Value Line*;
2. Five-year average of historic growth in earnings per share (EPS), dividends per share (DPS), and book value per share (BVPS), as reported by *Value Line*;
3. Years 2016, 2017 and 2019-2021 projections of earnings retention growth, as reported by *Value Line*;
4. Years 2013-2015 to 2019-2021 projections of EPS, DPS, and BVPS, as reported by *Value Line*; and,
5. Five - year projections of EPS growth, as reported by Yahoo Finance.

RUCO believes this combination of growth indicators to be a representative and appropriate set with which to estimate investor expectations of dividend growth for its proxy group of sample companies, as each is a determinant of dividend growth. Additionally, these growth indicators are reflective of the types of information that investors normally take into consideration when making an investment decision.

Q. Please describe RUCO's DCF calculations.

A. RUCO's DCF analysis is presented in Schedule JAC-3, Pages 1 through 4. Page 1 presents RUCO's overall DCF cost of equity estimation results for its proxy group of sample companies. As can be seen, "raw" DCF calculations are presented on several bases: mean, median, and high values. Page 2 presents the calculation of the dividend yield for each proxy company prior to adjustment for growth. Pages 3 and 4 present RUCO's historical and projected growth rate calculations for its proxy group of companies.

Q. What does RUCO conclude from its DCF cost of equity estimation analyses?

A. The DCF cost of equity rates obtained for RUCO's proxy group fall into a range between 7.62 percent and 8.80 percent. The highest DCF rates are 8.80 percent. RUCO concludes that 8.80 percent represents the current DCF-derived cost of equity for the proxy group. Accordingly, RUCO adopts a DCF-derived cost of equity of 8.80 percent for the Company, which is based on the high end of the DCF range. For purposes of its overall recommended cost of equity in this proceeding, RUCO assigns a weighting factor of 40 percent to this 8.80 percent DCF estimated cost of equity.

VIII. CAPM ANALYSIS

Q. Please describe the theory and methodological basis of the CAPM.

A. Developed in the 1960s and 1970s as an extension of modern portfolio theory, the CAPM describes the relationship between a security's investment risk and its market rate of

return.[37] This relationship identifies the rate of return which investors expect a security to earn so that its market return is comparable with the market returns earned by other securities that have similar risk. The relationship is specified by the Security Market Line (SLM) that indicates the relationship between each security or portfolio's "beta" and its resulting return. Beta is a measure of relative risk (i.e., volatility) between a given equity security and the market as a whole.

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*

R_m = *return on market*

β = *beta*

$R_m - R_f$ = *market risk premium*

Q. Can you please identify the strengths of using the CAPM model in your analysis?

A. The CAPM is cited as having the following strengths (1) it is based on the concept of risk and return; (2) it is company specific as it relates to the specific beta's within the industry; (3) it has widespread use as it recognizes that investors can and do diversify; (4) it's highly structured and easy to apply when using the assumptions of the model; (5) the model is

[37] The CAPM makes the following assumptions: 1) single holding period; 2) perfect and competitive securities market; 3) no transaction costs; 4) no restrictions on short selling or borrowing; 5) the existence of a risk-free rate; and 6) homogeneous expectations.

formulistic and the data used in the computations is readily available; (6) it is a forward looking concept; and (7) it is a method for converting changes in interest rates to the cost of equity.

Q. What risk-free (R_f) rate does RUCO use in its CAPM analysis?

A. For purposes of its CAPM analysis, RUCO uses a risk-free rate of 2.64 percent. RUCO's risk-free rate represents a composite 3-month average yield on the 30-year long-term U.S. Treasury Bond, measured over the 3-month period, February - April 2016. The calculation of RUCO's risk-free rate is presented in Schedule JAC-4, Page 1.

Q. Is it customary to use the yield on U.S. Treasury securities as the risk-free (R_f) rate in the CAPM?

A. Yes, because debt securities issued by the United States Department of the Treasury are considered to be free of default risk. Two general types of U.S. Treasury securities are most often used as the risk free *(R_f)* component, short-term U.S. Treasury bills and long-term U.S. Treasury bonds. For purposes of its analysis, RUCO elected to use the yield on 30-year U.S. Treasury bonds as a proxy for the risk-free rate because yields on long-term Treasury bonds more closely match the useful life of the plant assets to be funded by the Company's common equity capital.

Q. Did RUCO consider use of a forecasted long-term Treasury bond rate as the risk-free rate to be used in its CAPM analysis?

A. No. The appropriate interest rate to be used in the CAPM is the current rate borne by investors in the market place. Use of a forecasted risk-free rate overstates cost of equity

estimates derived from the CAPM. Use of a current long-term Treasury rate is reflective of investor's current expectations, and as such is the appropriate risk-free rate to be used in the CAPM.

Q. What beta coefficients does RUCO employ in its CAPM analysis?

A. RUCO employs the most recent *Value Line* beta reported for each company in its proxy group. Once again, beta[38] is a measure of the relative volatility, or 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.

Q. How does RUCO estimate the market risk premium (R_m-R_f) 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 government bonds. For purposes of its analysis, RUCO estimated the market risk premium by comparing annual realized returns on equity for the S&P 500 group with the actual annual yields on 20-year long-term Treasury bonds over the period, 1978-2015. As shown in Schedule JAC-4, Page 2, the market risk premium component used in RUCO's CAPM represents the average of differential returns on equity for the S&P 500 group and the annual yields on 20-year U.S. Treasury bonds over this 1978-2015 period of time. RUCO determined the average ROE on the S&P 500 to be 13.70 percent, and the average 20-year U.S. Treasury bond yield

[38] See Attachment 2 – Individual proxy companies beta's identified

to be 6.79 percent. Thus, based upon these returns RUCO concluded the market risk premium (R_m-R_f) component in its CAPM to be 6.91 percent.

Q. What did RUCO conclude the overall CAPM COE to be?

A. As shown in Schedule JAC-4, Page 1, RUCO determined the CAPM derived cost of equity to be 7.44 percent for its proxy group of sample companies. For purposes of its overall recommended cost of equity in this proceeding, RUCO assigns a weighting factor of 20 percent to this 7.44 percent CAPM estimated cost of equity.

IX. CE ANALYSIS

Q. Please describe the basis of the Comparable Earnings (CE) methodology.

A. The CE method is designed to measure returns expected to be earned on the original cost book value of similar risk business enterprises, in this case RUCO's proxy group of companies. Thus, it provides a direct measure of the fair return, since it translates into practice the competitive principle upon which regulation rests. This is true despite Liberty (Bella Vista) and Liberty (Rio Rico) not being publicly-traded entities, and provides additional support that the Company will be allowed the opportunity to earn a fair rate of return.

Q. How did RUCO apply the CE methodology?

A. RUCO applied the CE methodology by examining realized returns on equity for its proxy group of sample companies over the 10-year period, 2006-2015, as well as projected returns on equity for 2016 and 2017, and 2019-2021.

Q. What cost of equity results were obtained from RUCO's CE analysis?

A. As shown in Schedule 5, RUCO calculated historical returns on equity for its sample companies over both a 5- and 10-year period, and projected returns on equity over the 5-year period, 2016-2020. Based upon its analysis, RUCO generated mean, median, and average of mean and median CE cost of equity estimates ranging from a low of 8.6 percent to a high of 10.7 percent. The results of RUCO's CE cost of equity analysis based on returns on equity for the proxy group can be summarized as follows:

	Historic ROE's	Projected ROE's
Mean	8.9 % - 9.5 %	10.7 %
Median	8.6 % - 9.0 %	10.1 %
Average of Mean and Median	8.8 % - 9.3 %	10.4 %

For purposes of its analysis, RUCO adopts the 10.4 percent projected average of mean and median cost of equity estimate as its CE-derived cost of equity estimate for the Company. For purposes of its overall recommended cost of equity in this proceeding, RUCO assigns a weighting factor of 40 percent to this 10.4 percent CE estimated cost of equity.

X. RUCO RESPONSE TO COMPANY'S COST OF CAPITAL WITNESS MR. THOMAS J. BOURASSA

Q. Please summarize Mr. Bourassa's cost of capital analyses and recommendations.

A. Mr. Bourassa recommends a return on equity for Rio Rico of no less than 10.8 percent, and a return on equity for Bella Vista of no less than 11.6 percent, based on estimates derived from two constant growth DCF models, two CAPM models, and one risk premium model, using a sample group of seven publicly-traded water companies. Based upon his analyses, Mr. Bourassa determined the cost of equity for his sample group fell in the range

of 9.6 percent to 10.4 percent, with the mid-point indicated cost of equity being 10.0 percent. For purposes of his cost of equity recommendation for Rio Rico, Mr. Bourassa makes an upward 110 basis point adjustment for small size and business risk, resulting in a range of estimates of 10.7 percent to 11.5 percent, and a downward 30 basis point adjustment for financial risk, resulting in an adjusted cost of equity range of 10.4 percent to 11.2 percent, with his recommended 10.8 percent cost of equity representing the mid-point of this range. For purposes of his cost of equity recommendation for Bella Vista, Mr. Bourassa makes an upward 190 basis point adjustment for small size and business risk, resulting in a range of estimates of 11.5 percent to 12.3 percent, and a downward 30 basis point adjustment for financial risk, resulting in an adjusted cost of equity range of 11.2 percent to 12.0 percent, with his recommended 11.6 percent cost of equity representing the mid-point of this range. For Rio Rico, Mr. Bourassa recommends an 8.60 percent overall rate of return based upon a pro forma capital structure consisting of 30.0 percent debt and 70.0 percent equity, and a cost of debt of 3.47 percent. For Bella Vista, Mr. Bourassa recommends a 9.16 percent overall rate of return based upon a pro forma capital structure consisting of 30.0 percent debt and 70.0 percent equity, and a cost of debt of 3.47 percent.

In his constant growth DCF analyses, Mr. Bourassa estimates the dividend growth (g) component based upon (i) an average of both historical and forecasted growth and (ii) forecasted growth. The 5- and 10-year historical growth metrics employed by Mr. Bourassa include stock price growth, book value per share (BVPS), earnings per share (EPS), and dividends per share (DPS). Mr. Bourassa justifies use of stock price as a growth metric on grounds that in equilibrium, stock prices should grow at the same rate

as BVPS, EPS and DPS (Bourassa Direct, p. 36, lines 18-24). The historical stock price growth rates in Mr. Bourassa's DCF analysis are obtained from Yahoo Finance adjusted closing prices, while the BVPS, EPS and DPS historical growth rates are obtained from *Value Line*. Mr. Bourassa makes exclusive use of 5-year EPS forecasts from *Value Line* for his forecasted dividend growth estimates. In each of his two constant growth DCF analyses, the current dividend yield (D_0/P_0) component for each of his sample companies is based upon an October 2, 2015 closing spot market (P_0) price. For purposes of the 9.0 percent and 10.2 percent constant growth DCF cost of equity estimates he relies upon,[39] Mr. Bourassa adopts historical growth measures obtained over a 5-year period (*See* Bourassa Schedules D-4.4 and D-4.7 (pages 1 and 2)).

In his Risk Premium Analysis Based on Total Returns (RPM), Mr. Bourassa utilizes a 16-year historical period, 1999-2014, over which to estimate the equity risk premium to be used in his RPM. In each year, he obtains a composite average annual total return for his sample companies, subtracts from this value the average annual yield on long-term Treasury Bonds for that year, with the resulting quantity being the annual risk premium for his sample companies in that year. The 6.4 percent risk premium value used by Mr. Bourassa in his RPM analysis represents a 16-year average annual total return. In direct testimony, Mr. Bourassa describes the RPM as a 'bond yield plus risk premium method;' thus, to this 6.4 percent risk premium he adds a 4.1 percent expected (i.e., forecasted) long-term Treasury Bond rate, based on estimates from *Value Line* and *Blue Chip*

[39] In his summary schedule (Schedule D-4.1), Mr. Bourassa reports his DCF cost of equity estimates to be 9.0 percent and 10.2 percent. However, in Schedules D-4.7 (Pages 1 and 2), his DCF results are reported to be 8.99 percent and 10.23 percent, respectively.

Consensus Forecasts for the 30-year long-term Treasury yield covering the period, 2016-2018. The resulting 10.5 percent projected return on equity is Mr. Bourassa's RPM derived cost of equity. Mr. Bourassa's RPM analysis is presented in Schedule D-4.9.

For purposes of his CAPM analyses, Mr. Bourassa presents estimates based upon both historical and current market risk premia. In both, he employs as his risk-free (R_f) rate the same 4.1 percent forecasted 30-year long-term Treasury rate used in his RPM analysis. Mr. Bourassa's CAPM analysis is presented in Schedule D-4.11.

Q. Turning first to Mr. Bourassa's DCF analysis, does RUCO believe historical stock price growth to be an appropriate metric with which to estimate the dividend growth (g) component in the constant growth DCF model?

A. No, because stock price growth is **not** a determinant of dividend growth. In fact, the reverse is true, for without the ability to demonstrate growth in such metrics as earnings per share (EPS), dividends per share (DPS), earnings retention and book value per share (BVPS), investors would be unwilling to bid up the share price of a company's common equity in the market. In this regard, dividend growth is a determinant of stock price growth, not *vice versa*. That Mr. Bourassa purports to use stock price growth as a metric to estimate dividend growth places, figuratively speaking, the cart before the horse.

Q. You state above that Mr. Bourassa "purports" to use stock price growth as a metric to estimate dividend growth. Does RUCO have reason to believe that the 5- and 10-year historical stock price growth rates presented in Bourassa schedules D-4.4 and D-4.5 are something other than 5- and 10-year measures of capital stock price appreciation?

A. Yes. As further indicated in Footnote 1 of Schedules D-4.4 and D-4.5, the data used by Mr. Bourassa to compute his 5- and 10-year stock price growth rates was obtained from the Yahoo Finance website. A review of Mr. Bourassa's work papers, however, indicates that rather than using actual December 31 year-end closing stock prices reported by Yahoo Finance, Mr. Bourassa instead used December 31 year-end **adjusted closing prices** reported by Yahoo Finance in his calculations. A review of the Yahoo Finance website clearly indicates that the adjusted closing prices reported have been adjusted for both dividend distributions and stock splits.[40] Thus, rather than being a measure of capital stock price appreciation as Mr. Bourassa claims, the stock price growth rates reported in Bourassa schedules D-4.4 and D-4.5 are 5- and 10-year measures of total return.

Q. Please define the term, "total return."

A. As defined by Investopedia, 'total return' accounts for two categories of investment return: income and capital appreciation. Income includes interest paid by fixed-income investments, distributions or dividends. Capital appreciation represents the change in the

[40] When searching for historical stock prices on the Yahoo Finance website, the heading of the column containing Yahoo Finance's adjusted closing prices reads, "Adj Close*." Beneath the historical prices displayed, an asterisk appears with language clarifying what is meant by Adj Close, and reads as follows: "*Close price adjusted for dividends and splits."

market price of an asset.[41] Although measures of total return often assume dividend reinvestment, the above Investopedia definition is silent as to this point.

Q. As per the above definition, is it RUCO's position that the 5- and 10-year stock price growth rates presented in Schedules D-4.4 and D-4.5 contain both (i) an income component and (ii) a capital appreciation component?

A. Yes.

Q. Did RUCO issue a data request to Mr. Bourassa concerning this issue, and if so how did he respond?

A. Yes, RUCO issued several data requests to Mr. Bourassa concerning this issue, among them RUCO 4.03, 4.04, 4.05 and 4.06. In RUCO 4.03(a), Mr. Bourassa was asked if he considered use of 'total return' as a growth metric to estimate the dividend growth (g) rate in the constant growth DCF model to be "reasonable." In response, Mr. Bourassa stated no, he did **not** consider use of total return as a growth metric to be reasonable, and in response to parts (b) and (c) of RUCO 403, asserted that he does not use 'total return' as a growth metric, maintaining that the stock price growth estimates used in his analysis reflect only "the growth in the stock price itself." In response to RUCO 4.04(b), Mr. Bourassa stated that adjusted closing prices reported by Yahoo Finance "do not take into account the reinvestment of dividends which would be required in a total return computation." In RUCO 4.05, Mr. Bourassa was asked if he agreed with the proposition that for dividend paying stocks, compound growth in total return will exceed compound

[41] http://www.investopedia.com/terms/t/totalreturn.asp#ixzz3qSI2j7nj

growth in stock price appreciation, and in response stated that he did **not** agree, as **"total return will typically not exceed the growth in stock price"** (emphasis added). Finally, in RUCO 4.06, Mr. Bourassa was asked to provide a plausible explanation as to why the 5- and 10-year stock price growth estimates presented in Schedules D-4.4 and D-4.5 exceeded the 5- and 10-year total return figures obtained from Value Line Analyzer, as presented in the "VL_water" worksheet from his cost of capital work papers. In response, Mr. Bourassa provided an Excel worksheet, but the information provided was non-responsive to the question asked.[42]

Q. Does RUCO have evidence that adjusted closing prices provided by Yahoo Finance allow for the computation of total return?

A. Yes, as indicated by the following discussion of the difference between a stock's adjusted closing price and its actual closing price:

> "The adjusted closing price on a specific date reflects all of the dividends and splits since that day. Each time a dividend is paid or a stock split declared, the adjusted closing price changes for every day in the history of the stock.
>
> The adjusted closing price from a date in history can be used to calculate a **close estimate of the total return, including dividends** that an investor earned if shares were purchased on that date. For example, as of this writing, $197.07 was both IBM's actual and adjusted closing price for July 12, 2013. Go back 20 years in history, and the actual closing price on July 12, 1993, was 48.13. However, the adjusted closing price was $9.52. This adjusted closing price shows that an investment in IBM on that date produced an almost 2,000 percent return for investors -- not the 310 percent that the actual closing price would indicate."[43]

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[42] I subsequently received a telephone call from Mr. Bourassa requesting permission that he be allowed to amend his responses to RUCO 4.05 and 4.06. To date, I have not yet received an amended response to those data requests from Mr. Bourassa.

[43] Plaehn, Tim, "Adjusted Closing Price vs. Closing Price," *Zacks*. http://finance.zacks.com/adjusted-closing-price-vs-closing-price-9991.html

As evidenced by the above, and contrary to Mr. Bourassa's assertions otherwise, adjusted closing prices allow for the computation of a stock's total return, and as such, the stock price growth rates presented in Schedules D-4.4 and D-4.5 are **overstated**, as they contain both (i) a dividend income component and (ii) a capital appreciation component.[44]

Q. Did a review of Mr. Bourassa's work papers indicate that an additional overstatement had been made to the 5-year stock price growth rates reported in Schedule D-4.4 (Column 1) used to compute the dividend growth (g) rate in Mr. Bourassa's constant growth DCF analysis?

A. Yes. A review of the work papers indicated that rather than computing the 5-year compound stock price growth rates shown in Schedule D-4.4 over the 60-month period, December 31, 2009 - December 31, 2014, Mr. Bourassa's calculations reflected growth over a 62-month period, as the adjusted closing prices used in his analysis reflected growth over the period, October 30, 2009 – December 31, 2014.

Q. Did RUCO issue a data request to Mr. Bourassa concerning this matter?

A. Yes. In response to RUCO 4.01, Mr. Bourassa acknowledged the overstatement, and revised his sample average growth rate from the 14.90 percent figure reported in Schedule D-4.4, to 13.09 percent. However, in his response Mr. Bourassa stated that this overstatement "does not change his recommended cost of equity" for the Company.

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[44] It should be noted that the adjusted closing prices used in the above example comparing the total return on IBM stock over a twenty year period with IBM's stock price appreciation were obtained from the Yahoo Finance website.

Q. In light of the above, has RUCO prepared a restatement of Bourassa Schedules D-4.4 and D-4.5 to show what his 5- and 10-year historical and projected dividend growth (g) rates would be <u>exclusive</u> of stock price as a growth metric <u>updated</u> with the most recent *Value Line* data?

A. Yes. RUCO Exhibit JAC-A is a restatement of Bourassa Schedule D-4.4 presenting Mr. Bourassa's 5-year historical and projected growth rates, exclusive of stock price growth, with all other growth metrics updated as per the most recent *Value Line* data. As shown, RUCO's restatement indicates that Mr. Bourassa's 5-year sample average historical dividend growth (g) estimate is overstated by 191 basis points (8.22% - 6.31% = 1.91%), his sample average 5-year *Value Line* projected EPS growth estimate is overstated by 43 basis points (5.36% - 4.93% = 0.43%), which results in a 117 basis point (6.79% - 5.62% = 1.17%) overstatement to his average of historical and projected dividend growth estimate.

RUCO Exhibit JAC-B presents a similar restatement of Bourassa Schedule D-4.5, with Mr. Bourassa's 10-year historical and projected growth rates shown exclusive of a stock price growth metric, with all other growth metrics updated with the most recent *Value Line* data. As shown, RUCO's restatement indicates that Mr. Bourassa's 10-year sample average historical dividend growth (g) estimate is overstated by 68 basis points (6.18% - 5.50% = 0.68%), his sample average 5-year *Value Line* projected EPS growth estimate is overstated by 43 basis points (5.36% - 4.93% = 0.43%), resulting in a 55 basis point (5.77% - 5.21% = 0.55%) overstatement to his average of historical and projected dividend growth estimate.

Q. In making the above restatements to Bourassa Schedules D-4.4 and D-4.5, other than the exclusion of historical stock price growth as a metric to estimate dividend (g) growth, did RUCO alter or change in any way Mr. Bourassa's constant growth DCF methodology?

A. No. Aside from excluding stock price as a growth metric, RUCO's restatements were confined merely to an update of Mr. Bourassa's Schedules D-4.4 and D-4.5, as filed, using the most recent updated *Value Line* data available.

Q. Has RUCO prepared similar restatements of Bourassa Schedules D-4.7 (Page 1) and D-4.7 (Page 2) to reflect how the above noted overstatements to Mr. Bourassa's dividend growth estimates serve to overstate his overall constant growth DCF cost of equity estimates?

A. Yes. As shown in Exhibit JAC-C, RUCO's restatement of Bourassa Schedule D-4.7 (Page 1) indicates that Mr. Bourassa's 8.99 percent adjusted average cost of equity obtained from use of a Value Line projected EPS growth estimate has been overstated by 113 basis points (8.99% - 7.86% = 1.13%). Similarly, as shown in Exhibit JAC-D, RUCO's restatement of Bourassa Schedule D-4.7 (Page 2) indicates that Mr. Bourassa's 10.23 percent adjusted average cost of equity obtained from use of average of historical and projected growth estimates has been overstated by 206 basis points (10.23% - 8.17% = 2.06%).

Q. Based upon the above RUCO restatements to Bourassa Schedules D-4.7 (Page 1) and D-4.7 (Page 2), what did RUCO determine Mr. Bourassa's average constant growth DCF indicated cost of equity to be?

A. As shown in the restatements of Bourassa Schedules D-4.7 (Pages 1 and 2), RUCO determined Mr. Bourassa's average constant growth DCF indicated cost of equity to be **8.02 percent**, a figure which represents the average of the 7.86 percent indicated cost of equity shown in Exhibit JAC-C and the 8.17 percent indicated cost of equity shown in Exhibit JAC-D ((7.86% + 8.17%) / 2 = 8.02%).

Q. How does the above 8.02 percent RUCO restatement to Mr. Bourassa's constant growth DCF indicated cost of equity compare to RUCO's DCF derived indicated cost of equity in this proceeding?

A. RUCO's DCF derived indicated cost of equity is 8.80 percent. Thus, RUCO's constant growth DCF cost of equity estimate exceeds by 78 basis points the average indicated cost of equity obtained from RUCO's restatement of Mr. Bourassa's two constant growth DCF models (8.80% - 8.02% = 0.78%).

Q. In closing on a discussion of the DCF, in direct testimony (p. 30, lines 8-12) Mr. Bourassa is critical of the DCF model, stating it will "understate the cost of equity when the market-to-book ratio exceeds 1.0," because "the market-derived return produced by the DCF is often applied to book value rate base by regulators." How does RUCO respond?

A. RUCO would simply point out that pursuant to information provided in the May 2016 issue of *AUS Monthly Utility Reports*, the average authorized ROE for RUCO's proxy group of

companies was reported to be **9.65 percent**, while the realized percentage return on book value common equity for these same nine water utilities was **10.2 percent**; this, despite the fact that the market-to-book ratio for these nine publicly-traded water utilities stood at **2.61**. Thus, assuming regulators relied upon cost of equity estimates obtained from the DCF when setting rates for these nine publicly-traded water utilities, doing so doesn't appear to have hampered their ability to achieve returns on book value common equity **55 basis points** higher than their authorized ROE (10.20% - 9.65% = 0.55%) at a time when their market-to-book ratios exceeded book value by 261%.

Q. Moving on to a discussion of Mr. Bourassa's Risk Premium Analysis Based on Total Returns (RPM), as presented in Schedule D-4.9, was RUCO able to independently confirm as to accuracy the computation of the annual total returns reported in Schedule D-4.9 for the 16-year period, 1999-2014?

A. No. As noted in Footnote 1 of Schedule D-4.9, the source of the total return data used by Mr. Bourassa in his RPM analysis is *Value Line Analyzer*. However, RUCO does not subscribe to that service, and the total return figures reported in the "VL_water" worksheet of Mr. Bourassa's work papers have been **hardcoded** into the Excel spreadsheet. Furthermore, the work papers provide hardcoded total return figures only for the 10-year period, 2005-2014, and the work papers provided **no support** for the total returns for the 6-year period, 1999-2004.

Q. Did RUCO issue a Data Request to Mr. Bourassa concerning this issue?

A. Yes. RUCO issued Data Request 4.07 requesting Mr. Bourassa to provide (a) an explanation why the work papers contained no support for the total returns in years 1999-

2004, (b) all data inputs necessary to compute annual total returns for his sample companies over the 16-year period, 1999-2014, and (c) a schedule in Excel format showing the computational methodology employed by Mr. Bourassa to compute the annual total returns for the period, 1999-2014. In response, Mr. Bourassa stated that he does not compute the total return for each company, and that the data (i.e., hardcoded total returns) used in his analysis was provided by *Value Line*. The requested total return data inputs and computational methodology was not provided.

Q. Did RUCO endeavor to independently confirm the accuracy of the annual total returns reported in Bourassa Schedule D-4.9 using Yahoo Finance adjusted closing prices?

A. Yes. Utilizing December 31 year-end Yahoo Finance adjusted closing prices obtained from the Yahoo Finance website, as presented in the "PriceGrowth" worksheet of Mr. Bourassa's work papers for each of Mr. Bourassa's sample companies, RUCO found that annual total returns obtained from Yahoo Finance adjusted closing prices were essentially identical to those presented in Bourassa Schedule D-4.9 over the 14-year period, 2001-2014. However, annual total returns obtained from Yahoo Finance adjusted closing prices for 1999 and 2000 were noticeably different from those presented in Schedule D-4.9. Specifically, as shown in Schedule D-4.9, the annual total returns reported by Mr. Bourassa in years 1999 and 2000 are **26.28 percent** and **2.70 percent**, respectively. In contrast, the total returns obtained by RUCO using Yahoo Finance adjusted closing prices in these same two years are **30.69 percent** and **9.02 percent**, respectively.

Q. When utilizing adjusted closing prices, what information is needed to compute the 1999 annual total return for a given company?

A. In order to compute the annual total return for a given company for 1999, you need the company's December 31 year-end adjusted closing price from the prior year (i.e., 1998) as well as the December 31, 1999 adjusted closing price.

Q. Were December 31 year-end closing prices available for each of Mr. Bourassa's seven sample companies for the year 1998?

A. No. December 31, 1998 adjusted closing prices were available for only six of Mr. Bourassa's sample companies, as no December 31, 1998 adjusted closing price was reported for York Water.

Q. Did RUCO request Mr. Bourassa to provide support for the annual total returns reported by *Value Line* for Mr. Bourassa's sample companies in years 1999-2004?

A. Yes, and in response to RUCO 4.08 he provided an Excel worksheet (i.e., "VL Water 12-2008") containing the total return figures for the period, 1999-2004 from a *Value Line* download from 2008. A review of that document, however, revealed that the annual total return figures reported in Schedule D-4.9 in years 1999 and 2000 had been computed assuming the total return for York Water in both years was zero.

Q. Does RUCO believe it was proper for Mr. Bourassa to select the 16-year period, 1999-2014 for use in his RPM analysis given that in the first two years (i.e., 1999 and 2000) he assumes the total return for York Water to be zero?

A. No, it was improper for him to select a time period in which total return data for each of his sample companies was not available. The year 2000 is the earliest in which a total return calculation can be made for York Water, and thus for purposes of his RPM analysis Mr. Bourassa should have excluded data from 1999 and instead measured the risk premium utilizing data from the 15-year period, 2000-2014.

Q. How does Mr. Bourassa describe the risk premium model (RPM) in direct testimony?

A. In his explanatory discussion of the RPM (See Bourassa Direct, p. 38, lines 17-22), Mr. Bourassa describes the RPM as a 'bond yield plus risk premium' cost of equity estimation methodology, whose "**general approach**" involves determining the spread between the return on debt and the return on equity, and then adding this spread to "**the current debt yield**" to derive an estimated cost of equity. Mr. Bourassa goes on to say that in implementing the RPM, "**it is assumed that the past relationship will continue into the future**." Mr. Bourassa concludes by stating that the RPM is widely used by both "**analysts and investors**" (emphasis added).

Q. Pursuant to the above description provided by Mr. Bourassa, is it important that the historical period used to obtain the equity risk premium component in the RPM be one which is representative of expected future performance?

A. Yes, and Mr. Bourassa, himself, appears to acknowledge this fact when he states that in implementing the RPM, past relationships are assumed to continue into the future.

Q. Does a cursory review of Schedule D-4.9 provide evidence that, as filed, Mr. Bourassa's RPM analysis serves to violate the assumption that past relationships continue into the future?

A. Yes, as a review of Schedule D-4.9 reveals that, as filed, Mr. Bourassa obtained both the **highest** annual total return (26.28%) and **highest** annual risk premium (20.41%) results in 1999, the **first** year of the 16-year period used to obtain the equity risk premium component in his RPM analysis.

Q. In reviewing Mr. Bourassa's work papers, was RUCO able to determine why the annual total return and annual risk premiums were unusually high for Mr. Bourassa's sample companies in 1999?

A. Yes. A review of Mr. Bourassa's work papers indicated that in 1999, common stock investors in one sample company – SJW Corp. – experienced a total return of 111.33 percent.[45] On average, the other water utilities in Mr. Bourassa's sample experienced total returns of only 14.62 percent in 1999.[46] Thus, Mr. Bourassa's high total return and

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[45] This information appears in the "Price Growth" tab of Mr. Bourassa's work papers.
[46] In 1999, no market data was available for York Water Company. Thus, the RPM results obtained by Mr. Bourassa in that year reflect the market performance of only six of his seven sample companies. Beginning in year 2000, market data became available for all seven sample companies.

risk premium results in 1999 were largely attributable to the market performance of SJW common stock.

Q. Was RUCO able to determine if any of Mr. Bourassa's other sample companies experienced total returns equivalent to that of SJW's in 1999?

A. In reviewing Mr. Bourassa's work papers, RUCO found no instance of any sample company experiencing a gain of that magnitude. In fact, over the 16-year period, 1999-2014, the highest annual total return achieved by another sample company was 60.58 percent, by York Water in 2001.[47] Thus, the stellar market performance achieved by SJW in 1999 appears to be a statistical aberration.

Q. For the reasons noted above, is it RUCO's position that the equity risk premium component of Mr. Bourassa's RPM analysis should have been obtained utilizing annual total return data for his sample companies over the 15-year period, 2000-2014?

A. Yes.

[47] This information was obtained in the "Price Growth" tab of Mr. Bourassa's Excel work papers.

Q. In describing the RPM, you also point out that Mr. Bourassa states the RPM is "widely used by both analysts and investors." In your judgment, would an investor be inclined to view the 1999 annual total return and equity risk premium levels achieved by Mr. Bourassa's sample group of companies as representative of what to expect in the future?

A. No. Investors are assumed to be rational, and in my judgment a rational investor would view the total return and risk premium levels achieved in 1999 as a statistical aberration and, therefore, not representative of investment returns to be expected in the future. Investors would be much more inclined to view performance measured over the 15-year period, 2000-2014, as representative of expected future returns.

Q. For purposes of his RPM analysis, did Mr. Bourassa employ a compound geometric mean in the computation of the annual total returns presented in Schedule D-4.9?

A. No, he did not. Mr. Bourassa employed exclusive use of an arithmetic mean when computing the annual total returns presented in Schedule D-4.9.

Q. Why is exclusive use of arithmetic returns in the development of Mr. Bourassa's RPM equity risk premium inappropriate?

A. It is inappropriate for two reasons. First, exclusive use of arithmetic returns leads to the development of higher, and potentially excessive, risk premiums. Second, investors have access to both arithmetic and geometric returns, and utilize both when making investment decisions. For example, mutual fund investors rely on geometric returns when evaluating a fund's historic and prospective returns, and *Value Line* reports historic investment

returns on a geometric or compound annual growth rate basis. Thus, to exclude geometric returns in the development of an equity risk premium fails to give recognition to their importance in the investment decision-making process.

Q. Has the Arizona Corporation Commission (ACC) previously ruled on the issue of geometric returns and whether they should be considered in the development of an equity risk premium?

A. Yes, and the ACC has consistently ruled that geometric returns **should be considered** in the development of an equity risk premium.[48]

Q. Earlier you pointed out that when describing the RPM, Mr. Bourassa stated that the "general approach" involves adding the "current debt yield" to the equity risk premium component to derive an RPM derived estimated cost of equity. Does RUCO believe the 'general approach' to the RPM as described by Mr. Bourassa to be the appropriate RPM methodology to use for purposes of setting the rates a regulated public utility may charge its customers?

A. Yes, and for two reasons. First, the current debt yield is reflective of the rate borne by investors in the marketplace. To set rates based upon projected measures of long-term U.S. Treasury debt instruments ignores the fact that ratepayers don't have the luxury of

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[48] *See* Decision No. 70011 (dated November 27, 2007), in *UNS Gas, Inc.* (Docket No. G-04204A-06-0463); Decision No. 70360 (dated May 27, 2008), in *UNS Electric, Inc.* (Docket No. E-04204A-06-0783); Decision No. 71308 (dated October 21, 2009), in *Chaparral City Water Company* (Docket No. W-02113A-07-0551); Decision No. 71623 (dated April 14, 2010), in *UNS Gas, Inc.* (Docket No. G-04204A-08-0571); Decision No. 71845 (dated August 25, 2010), in *Arizona Water Company* (Docket No. W-01445A-08-0440); Decision No. 71914 (dated September 30, 2010), in *UNS Electric, Inc.* (Docket No. E-04204A-09-0206);

obtaining comparable "projected" returns on investments today, here and now. This is particularly true when considering the present low rates paid by banks on passbook savings accounts. Second, regulated public utilities are granted natural monopoly status to serve customers in their certificated service territory, and as a consequence the ratepayers they serve are held captive to the tariffed rates authorized to be charged. Thus, to set rates based on cost of equity estimates obtained through the use of projected measures of long-term Treasury debt yields is inequitable/unfair to ratepayers.

Q. For purposes of arriving at his overall 10.6 percent RPM derived cost of equity, does Mr. Bourassa employ a current measure of the long-term Treasury bond rate?

A. No, he does not. As shown in Schedule D-4.9, Mr. Bourassa employs a 4.1 percent projected 30-year U.S. Treasury Bond rate, from forecasts obtained from *Value Line* and *Blue Chip Financial Forecasts* covering the period, 2016-2018 (*See* Bourassa Direct, pp. 33-34, and Schedule D-4.8). In this respect, Mr. Bourassa's RPM methodology represents a significant departure from the 'general approach' he describes in direct testimony.

Q. Does Mr. Bourassa's use of a 4.1 percent projected 30-year long-term Treasury Bond rate in his RPM analysis serve to overstate his 10.5 percent RPM derived cost of equity?

A. Yes, it significantly overstates the cost of equity in his RPM analysis because the recent 3-month average yield on the 30-year U.S. Treasury Bond is **2.64 percent**, a figure **146**

basis points lower than the projected 4.1 percent rate employed by Mr. Bourassa in his analysis (4.10% - 2.64% = 1.46%).

Q. For purposes of his forecasted risk free rate, Mr. Bourassa incorporates estimates provided by *Blue Chip Financial Forecasts*. Is there reason to believe that interest rate forecasts provided by *Blue Chip Financial Forecasts* have systematically been overstated for quite some time?

A. Yes. As shown in RUCO Exhibit JAC-E, a recent study found that estimates for 10-year U.S. Treasury rates provided by *Blue Chip Economic Indicators* have systematically and consistently been overstated.[49]

Q. Turning now to Mr. Bourassa's CAPM cost of equity analysis, as shown in Schedule D-4.11 he obtains estimates from both a Historical Market Risk Premium (MRP) CAPM as well as a Current MRP CAPM. In both, however, the risk-free (R_f) rate component is the same 4.1 percent forecasted long-term Treasury rate as that used by Mr. Bourassa in his RPM analysis. How does RUCO respond?

A. For the reasons noted above in my discussion of Mr. Bourassa's RPM analysis, use of forecasted Treasury yields in the CAPM is inappropriate, and serves to **overstate** cost of equity estimates derived therefrom. This is particularly true given that Mr. Bourassa relies, in part, on estimates from *Blue Chip Economic Indicators*. The appropriate risk-free (R_f)

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[49] "Long-Term Interest Rates: A Survey," Council of Economic Advisors, Executive Office of the President of the United States, July 2015, p.11, Figure 5.
https://www.whitehouse.gov/sites/default/files/docs/interest_rate_report_final_v2.pdf

rate to be used in the CAPM is the current long-term Treasury Bond rate. The current 3-month average yield on the 30-year U.S. Treasury Bond is **2.64 percent**. Thus, Mr. Bourassa's use of a forecasted 4.1 percent risk-free rate overstates the cost of equity estimates derived from both his Historical MRP and Current MRP CAPM models by **146 basis points** (4.10% - 2.64% = 1.46%).

Q. What is the sample average beta coefficient used by Mr. Bourassa in his CAPM analysis?

A. As shown in Schedule D-4.11, Mr. Bourassa's sample average beta coefficient is 0.73.

Q. Since the filing of Mr. Bourassa's direct testimony, has there been a change to Mr. Bourassa's sample average beta?

A. Yes, based on information obtained from the most recent *Value Line* quarterly update for the water utility industry (dated April 15, 2016), RUCO determined that the beta coefficient for Mr. Bourassa's sample companies has fallen to 0.71. Thus, relative to other publicly-traded companies, the level of systematic (i.e., market) risk exposure to investors holding common shares in the stock of Mr. Bourassa's sample companies is fractionally lower than it was at the time Mr. Bourassa filed direct testimony.

Q. Does RUCO have concerns regarding the 7.00 percent market risk premium (RP_m) component of Mr. Bourassa's Historical MRP CAPM?

A. No.

Q. Does RUCO have concerns regarding the 8.93 percent market risk premium (MRP) component employed by Mr. Bourassa in his Current MRP CAPM?

A. Yes, as his 8.93 percent MRP is clearly **not** reflective of **current** market conditions and has been significantly overstated.

Q. What evidence does RUCO have to demonstrate that the 8.93 percent market risk (RP_m) premium in Mr. Bourassa's Current MRP CAPM is overstated?

A. Evidence of its overstatement can be found in rebuttal testimony filed by Mr. Bourassa in the recent Quail Creek Water Company rate case.[50] Specifically, in Rebuttal (Page 10, lines 20-22), Mr. Bourassa alludes to a recent *Wall Street Journal* article which reported, as he states, that "estimates of the equity risk premium for the S&P 500 as of the end of April 2015 was one of the highest estimates going back to 1960." A review of the article to which Mr. Bourassa cites[51] reveals that as of the end of April 2015, the equity risk premium on the S&P 500 was 5.8 percent, and was based upon the research findings of Dr. Aswath Damodaran, Professor of Finance at the Stern School of Business at New York University.

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[50] *Quail Creek Water Company* (Docket No. W-02514A-14-0343), Rebuttal Testimony (Cost of Capital) filed by Thomas J. Bourassa, dated June 3, 2015.

[51] Lahart, Justin, "Lower Yields May be Stocks' Real Threat," *The Wall Street Journal*, Heard on the Street Column, May 17, 2015. http://www.wsj.com/articles/lower-yields-may-be-stocks-real-threat-1431885420

Q. Does Dr. Damodaran regularly update his research findings as to the current equity risk premium for the S&P 500?

A. Yes, Dr. Damodaran maintains a website dedicated to that purpose.[52] In visiting the website, RUCO found that he had updated his analysis to May 1, 2016, and as of that date the current equity risk premium on the S&P 500 was estimated to be **6.22 percent**.

Q. Would an equity risk premium on the S&P 500 of 6.22 percent, measured as of May 1, 2016, be considered an indication of the "current" MRP?

A. Yes, because the S&P 500 is a broad based market index of 500 publicly-traded companies, and the performance of the S&P 500 is often used as a proxy for that of the market as a whole.

Q. In light of the above, please quantify the degree to which Mr. Bourassa's 8.93 percent current market risk premium is overstated.

A. Mr. Bourassa has overstated the current MRP component in his Current MRP CAPM analysis by 271 basis points (8.93% - 6.22% = 2.71%).

[52] http://pages.stern.nyu.edu/~adamodar/

Q. Has RUCO prepared a restatement to Bourassa Schedule D-4.11 reflecting corrections to the above noted problems associated with Mr. Bourassa's CAPM analysis?

A. Yes. As shown in Exhibit JAC-F, RUCO has prepared a restatement of Schedule D-4.11 to reflect use of (i) the current 2.64 percent 30-year Treasury Bond yield as the risk-free (R_f) rate, (ii) a reduced 0.71 sample average beta coefficient, and (iii) a reduction to the MRP component in Mr. Bourassa's Current MRP CAPM. As can be seen, as adjusted by RUCO Mr. Bourassa's Historical MRP CAPM estimated cost of equity falls from 9.2 percent to 7.64 percent, a reduction of **157 basis points** (9.2% - 7.64% = 1.57%), while Mr. Bourassa's Current MRP CAPM estimated cost of equity falls from 10.6 percent to 7.09 percent, a reduction of **353 basis points** (10.6% - 7.09% = 3.53%). Overall, Mr. Bourassa's average CAPM estimate falls from 9.9 percent to 7.37 percent, a reduction of **255 basis points** (9.9% - 7.37% = 2.55%).[53]

[53] Note that slight differences in the above cited overstatements are due to Mr. Bourassa rounding his recommended CAPM cost of equity estimates to the tenth, rather than the hundredth, position.

Q. For purposes of his 10.8 percent recommended cost of equity for Rio Rico, Mr. Bourassa makes provision for an upward 110 basis point company-specific/small size risk premium, and for purposes of his 11.6 percent recommended cost of equity for Bella Vista, he makes provision for an upward 190 basis point company-specific/small size risk premium (Bourassa Direct pp. 48-51). How does RUCO respond?

A. Empirical research has demonstrated that a small company risk premium adjustment to the cost of equity is unwarranted for regulated utilities. Annie Wong, of Western Connecticut State University, conducted a study on utility stocks to determine if the so-called size effect exists in the utility industry, and she writes as follows:

> The fact that the two samples show different, though weak, results indicates 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 betas 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 and regulated financial structure. As a result, the business and financial risks are very similar among the utilities regardless of their size. Therefore, utility betas would not necessarily be expected to be related to firm size.

The object of this study is to examine if the size effect exists in the utility industry. After controlling for equity values, there is some weak evidence that firm size is a missing factor from the CAPM for the industrial but not for the utility stocks. This implies that although the size phenomenon has been strongly documented for industrials, the findings suggest

that **there is no need to adjust for the firm size in utility regulations.**[54] (emphasis added)

Q. Has the Commission previously ruled on the issue of firm size and whether it warrants a risk premium adjustment to the cost of equity?

A. Yes. In Decision No. 64282,[55] the ACC ruled for Arizona Water that firm size does not warrant recognition of a risk premium stating, "We do not agree with the Company's proposal to assign a risk premium to Arizona Water based on its size relative to other publicly traded water utilities…." The Commission confirmed its previous ruling in Decision No. 64727[56] for Black Mountain Gas agreeing with Staff that "the 'firm size phenomenon' does not exist for regulated utilities, and that therefore there is no need to adjust for risk for small firm size in utility regulation." All companies have firm-specific risks; therefore, the existence of unique risks for a company does not lead to the conclusion that its total risk is greater than other entities. Moreover, as previously discussed, investors cannot expect compensation for firm-specific risk since it can be eliminated through diversification.

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[54] Annie Wong, "Utility Stock and the Size Effect: An Empirical Analysis," *Journal of the Midwest Finance Association*, (1993), p.98.
[55] Dated December 28, 2001.
[56] Dated April 17, 2002.

Q. Has the ACC issued a more recent decision which reconfirms its prior position regarding firm size?

A. Yes, in the recent EPCOR Water Arizona case.[57] In Decision No. 75268[58], the ACC ruled as follows:

> **Nor are we persuaded** by Ms. Ahern's claim **that EPCOR's "size" should be recognized as a business risk factor**. Although a company's size may sometimes be considered as a business risk factor, **for utilities of substantial size (i.e., those that have access to the equity capital markets) it is a minimal consideration in determining business risk**. Small utilities, (e.g., non-class A utilities) may have additional risk due to the inability to hire employees or contract for sufficient levels of expertise management, technical & financial) to perform effectively and efficiently. Small utilities also have other risks such as information access, greater annual variability in operating expenses, and greater regulatory risk both due to lack of skilled rate case personnel and the percentage of operating expenses and rate base components reviewed by Staff and intervenors. Due to the latter two reasons, for any adopted return on equity the distribution of actual returns is greater for a small utility than for a large utility, and greater variability means greater risk. However, most of the proxy companies used in the cost of capital analyses, including EPCOR, are a conglomeration of many smaller water systems and have the capacity to attract the appropriate level of talent for proficient operation. Thus, the business risk for any of the EPCOR systems parallels that of the sample companies, and **we do not believe a cost of equity adjustment for size is appropriate**. (emphasis added)

Q. Does Liberty Black Mountain have access to the equity capital markets?

A. Yes, through its ultimate parent, Algonquin Power & Utilities Corp., whose common stock is publicly traded on the Toronto Stock Exchange (Ticker: AQN).

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[57] *EPCOR Water Arizona, Inc.* (Docket No. WS-01303A-14-0010).
[58] Dated September 8, 2015.

Q. Does this suggest that pursuant to Decision No. 75268, Mr. Bourassa's upward 110 and 190 basis point adjustments for small size is unwarranted?

A. Yes.

XI. CONCLUSION AND RECOMMENDATIONS

Q. Please summarize RUCO's cost of capital recommendations in this proceeding.

A. RUCO recommends that the Commission adopt the following:

1) A pro forma capital structure composed of 30.0 percent long-term debt and 70.0 percent common equity;
2) A cost of debt of 2.97 percent;
3) A cost of common equity of 9.17 percent; and
4) An overall rate of return of 7.31 percent.

Q. Does this conclude your direct testimony?

A. Yes, it does.

ATTACHMENT 1

Attachment 1

John A. Cassidy, CRRA

EDUCATION

Arizona State University -- Master of Business Administration-Finance (May 1987)

University of Arizona -- Master of Library Science (August 1980)

Arizona State University -- B.A. History, Latin American Studies (May 1976)

CERTIFICATION

I have been awarded the professional designation Certified Rate of Return Analyst (CRRA) by the Society of Utility and Regulatory Financial Analysts. This designation is awarded based upon experience and successful completion of a written examination. (May 2016)

EXPERIENCE

Public Utilities Analyst V – Residential Utility Consumer Office (RUCO), Phoenix, AZ (July 2015-Present)

Public Utilities Analyst III -- Arizona Corporation Commission, Phoenix, AZ (March 2013-July 2015)

Public Utilities Analyst II -- Arizona Corporation Commission, Phoenix, AZ (May 2012-March 2013)

Public Utility Consultant -- Arizona Corporation Commission, Phoenix, AZ (Jan. 2012-May 2012)

Regulatory Utility Consultant – Self-Employed, Tempe, AZ (2009-2010)

- Assisted in the preparation of testimony filed by the Residential Utility Consumer Office (RUCO) in the Litchfield Park W/WW rate case (Docket No. SW-01428A-09-0103, et al)

Regulatory Utility Consultant – Self-Employed, Tempe, AZ (2007-2008)

- Filed formal cost of capital testimony/schedules on behalf of intervener, Anthem Town Council, and testified at evidentiary hearing in the Arizona-American Water Co., Anthem Water and Anthem/Agua Fria WW rate case (Docket No. WS-01303A-06-0403)

Utilities Auditor II -- Arizona Corporation Commission, Phoenix, AZ (Aug. 1993-Nov. 1997)

PROFESSIONAL DEVELOPMENT

Annual Regulatory Studies Program ("Camp NARUC"), Institute of Public Utilities, Michigan State University, East Lansing, MI (August 4-15, 2014)

Society of Utility and Regulatory Financial Analysts (SURFA), Indianapolis, IN (April 17-19, 2013)

NARUC Utility Rate School, San Diego, CA (May 13-17, 2013)

HONORS

CPA Candidate - Passed the CPA exam (1997), but opted not to pursue certification

Beta Gamma Sigma - National Honor Society in Business Administration

Rate Dockets Testified - Cost of Capital:

Liberty Utilities (Bella Vista Water & Rio Rico W/WW)	Docket Nos. W-02465A-15-0367, et al.
Arizona Water Company (Western Group)	Docket No. W-01445A-15-0277
Liberty Utilities (Black Mountain Sewer)	Docket Nos. SW-02361A-15-0206, et al.
Quail Creek Water Company	Docket No. W-02514A-14-0343
EPCOR Water Arizona	Docket No. WS-01303A-14-0010
Utility Source, L.L.C.	Docket No. WS-04235A-13-0331
Verde Santa Fe Wastewater Company	Docket No. SW-03437A-13-0292
Chaparral City Water Company	Docket No. W-02113A-13-0118
Payson Water Company	Docket No. W-03514A-13-0111
Lago Del Oro Water Company	Docket No. W-01944A-13-0215
Las Quintas Serenas Water Company	Docket No. W-01583A-13-0117
Litchfield Park Service Company	Docket Nos. SW-01428A-13-0042, et al.
Adaman Mutual Water Company	Docket No. W-01997A-12-0501
Global Water Utilities	Docket Nos. W-01212A-12-0309, et al.
New River Utility Company	Docket No. W-01737A-12-0478
Arizona Water Company	Docket No. W-01445A-12-0348
Far West Water & Sewer, Inc.	Docket No. WS-03478A-12-0307
Cordes Lakes Water Company	Docket No. W-02060A-12-0356
Rio Rico Utilities, Inc.	Docket No. WS-02676A-12-0196
Ray Water Company	Docket No. W-01380A-12-0254
Vail Water Company	Docket No. W-01651B-12-0339
Valley Water Company	Docket No. W-01412A-12-0195
Arizona Water Company	Docket No. W-01445A-11-0310
Pima Utility Company	Docket Nos. W-02199A-11-0329, et al.
Arizona-American Water Co.	Docket No. WS-01303A-06-0403

Rate Dockets Testified - Revenue Requirement/Rate Design:

Arizona Water Company	Docket No. W-01445A-15-0277
Quail Creek Water Company	Docket No. W-02514A-14-0343
Beaver Dam Water Company	Docket No. W-03067A-12-0232

Eden Water Company	Docket No. W-02068A-11-0471
Great Prairie Oasis, dba Sunland Water Co.	Docket No. W-04015A-12-0051

Financing Dockets - Responsible for ACC Staff Report:

Arizona Public Service Company	Docket No. E-01345A-11-0423
Tucson Electric Power Company	Docket No. E-01933A-12-0176
Chaparral City Water Company	Docket No. W-02113A-13-0047
Payson Water Company	Docket No. W-03514A-13-0142
Lago Del Oro Water Company	Docket No. W-01944A-13-0242
Duncan Valley Electric Cooperative, Inc.	Docket No. E-01703A-13-0272
Sulphur Springs Valley Electric Cooperative, Inc.	Docket No. E-01575A-12-0457
Trico Electric Cooperative, Inc.	Docket No. E-01461A-12-0056
Great Prairie Oasis, dba Sunland Water Co.	Docket No. W-04015A-12-0050
Columbus Electric Cooperative, Inc.	Docket No. E-01851A-11-0415
Pima Utility Company	Docket Nos. W-02199A-11-0403, et al.

ATTACHMENT 2

AMER. STATES WATER NYSE-AWR

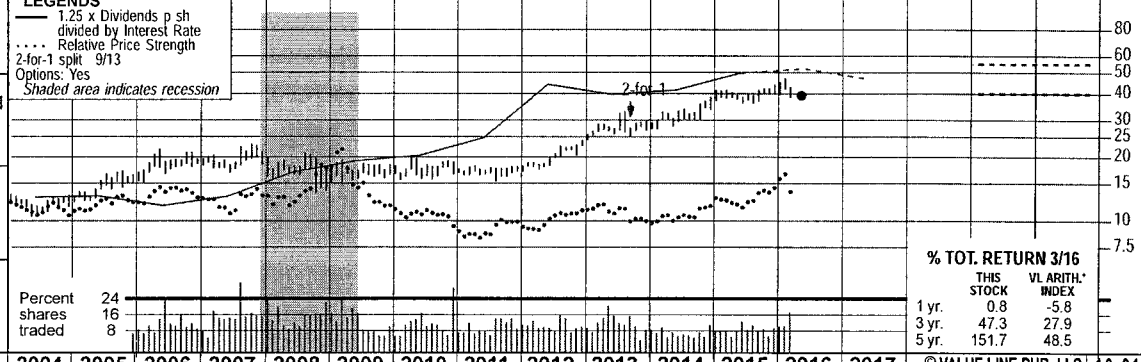
RECENT PRICE **39.23** | P/E RATIO **23.4** (Trailing: 24.5 Median: 20.0) | RELATIVE P/E RATIO **1.28** | DIV'D YLD **2.4%** | VALUE LINE

TIMELINESS 3 Lowered 4/1/16
SAFETY 2 Raised 7/20/12
TECHNICAL 1 Raised 3/18/16
BETA .75 (1.00 = Market)

High:	17.3	21.9	23.1	21.0	19.4	19.8	18.2	24.1	33.1	38.7	44.1	47.2
Low:	12.2	15.1	16.8	13.5	14.9	15.6	15.3	17.0	24.0	27.0	35.8	38.3

Target Price Range 2019 | 2020 | 2021

LEGENDS
— 1.25 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 9/13
Options: Yes
Shaded area indicates recession



2019-21 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(+40%)	11%
Low	40	(Nil)	4%

Insider Decisions

	J	J	A	S	O	N	D	J	F
to Buy	0	0	0	0	0	0	0	0	0
Options	0	1	0	5	3	4	2	11	1
to Sell	3	1	1	5	3	3	1	2	1

Institutional Decisions

	2Q2015	3Q2015	4Q2015
to Buy	80	91	88
to Sell	82	89	88
Hld's(000)	23707	23779	23016

% TOT. RETURN 3/16

	THIS STOCK	VL ARITH.* INDEX
1 yr.	0.8	-5.8
3 yr.	47.3	27.9
5 yr.	151.7	48.5

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	© VALUE LINE PUB. LLC	19-21
6.08	6.53	6.89	6.99	6.81	7.03	7.88	8.75	9.21	9.74	10.71	11.12	12.12	12.19	12.17	12.56	*12.60*	*13.00*	Revenues per sh	*15.80*
1.10	1.26	1.27	1.04	1.11	1.32	1.45	1.65	1.69	1.70	2.11	2.13	2.48	2.65	2.67	2.81	*2.95*	*3.05*	"Cash Flow" per sh	*3.80*
.64	.67	.67	.39	.53	.66	.67	.81	.78	.81	1.11	1.12	1.41	1.61	1.57	1.60	*1.70*	*1.80*	Earnings per sh A	*2.25*
.43	.43	.44	.44	.44	.45	.46	.48	.50	.51	.52	.55	.64	.76	.83	.87	*.92*	*.97*	Div'd Decl'd per sh B■	*1.25*
1.51	1.59	1.34	1.88	2.51	2.12	1.95	1.45	2.23	2.09	2.12	2.13	1.77	2.52	1.89	2.39	*2.35*	*2.35*	Cap'l Spending per sh	*2.75*
6.37	6.61	7.02	6.98	7.51	7.86	8.32	8.77	8.97	9.70	10.13	10.84	11.80	12.72	13.24	12.77	*13.55*	*14.10*	Book Value per sh	*16.50*
30.24	30.24	30.36	30.42	33.50	33.60	34.10	34.46	34.60	37.06	37.26	37.70	38.53	38.72	38.29	36.50	*36.50*	*36.50*	Common Shs Outst'g C	*37.00*
15.9	16.7	18.3	31.9	23.2	21.9	27.7	24.0	22.6	21.2	15.7	15.4	14.3	17.2	20.1	24.6	*Bold figures are*		Avg Ann'l P/E Ratio	*20.0*
1.03	.86	1.00	1.82	1.23	1.17	1.50	1.27	1.36	1.41	1.00	.97	.91	.97	1.06	1.25	*Value Line*		Relative P/E Ratio	*1.25*
4.2%	3.9%	3.6%	3.5%	3.6%	3.1%	2.5%	2.5%	2.9%	2.9%	3.0%	3.2%	3.1%	2.7%	2.6%	2.2%	*estimates*		Avg Ann'l Div'd Yield	*2.7%*

CAPITAL STRUCTURE as of 12/31/15
Total Debt $325.8 mill. **Due in 5 Yrs** $41.6 mill.
LT Debt $325.5 mill. **LT Interest** $21.1 mill.
(41% of Cap'l)

Leases, Uncapitalized: Annual rentals $2.5 mill.
Pension Assets-12/15 $142.2 mill.
Oblig. $168.9 mill.

Pfd Stock None.

Common Stock 36,523,179 shs.
as of 2/22/16

MARKET CAP: $1.4 billion (Mid Cap)

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		19-21
268.6	301.4	318.7	361.0	398.9	419.3	466.9	472.1	465.8	458.6	*460*	*475*	Revenues ($mill)	*585*
23.1	28.0	26.8	29.5	41.4	42.0	54.1	62.7	61.1	60.5	*62.0*	*66.0*	Net Profit ($mill)	*83.0*
40.5%	42.6%	37.8%	38.9%	43.2%	41.7%	39.9%	36.3%	38.4%	38.4%	*38.0%*	*37.0%*	Income Tax Rate	*36.0%*
12.2%	8.5%	6.9%	3.2%	5.8%	2.0%	2.5%	--	2.5%	.5%	*1.0%*	*1.5%*	AFUDC % to Net Profit	*1.0%*
48.6%	46.9%	46.2%	45.9%	44.3%	45.4%	42.2%	39.8%	39.1%	41.1%	*42.0%*	*42.5%*	Long-Term Debt Ratio	*57.0%*
51.4%	53.1%	53.8%	54.1%	55.7%	54.6%	57.8%	60.2%	60.9%	58.9%	*58.0%*	*57.5%*	Common Equity Ratio	*43.0%*
551.6	569.4	577.0	665.0	677.4	749.1	787.0	818.4	832.6	791.5	*860*	*900*	Total Capital ($mill)	*1060*
750.6	776.4	825.3	866.4	855.0	896.5	917.8	981.5	1003.5	1060.8	*1105*	*1150*	Net Plant ($mill)	*1370*
6.0%	6.7%	6.4%	5.9%	7.6%	7.1%	8.3%	8.9%	8.6%	9.0%	*9.0%*	*8.5%*	Return on Total Cap'l	*9.5%*
8.1%	9.3%	8.6%	8.2%	11.0%	10.3%	11.9%	12.7%	12.0%	13.0%	*12.5%*	*13.0%*	Return on Shr. Equity	*13.5%*
8.1%	9.3%	8.6%	8.2%	11.0%	10.3%	11.9%	12.7%	12.0%	13.0%	*12.5%*	*13.0%*	Return on Com Equity	*13.5%*
2.7%	3.9%	3.1%	3.2%	5.8%	5.3%	6.6%	6.8%	5.7%	6.0%	*6.0%*	*6.0%*	Retained to Com Eq	*6.0%*
67%	58%	64%	61%	47%	49%	45%	47%	53%	54%	*54%*	*54%*	All Div'ds to Net Prof	*56%*

CURRENT POSITION ($MILL.)	2013	2014	12/31/15
Cash Assets	38.2	76.0	4.4
Accts Receivable	23.8	18.8	18.9
Other	129.6	114.7	109.4
Current Assets	191.6	209.5	132.7
Accts Payable	49.8	41.9	50.6
Debt Due	6.3	.3	.3
Other	44.8	57.1	72.6
Current Liab.	100.9	99.3	123.5

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '13-'15 to '19-'21
Revenues	6.0%	4.5%	*4.5%*
"Cash Flow"	9.0%	8.0%	*6.0%*
Earnings	12.0%	12.0%	*6.0%*
Dividends	6.5%	10.0%	*7.0%*
Book Value	5.5%	6.0%	*4.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2013	110.6	120.7	130.9	109.9	472.1
2014	102.0	115.6	138.3	109.9	465.8
2015	100.9	114.6	133.0	110.1	458.6
2016	*100*	*115*	*135*	*110*	*460*
2017	*102*	*120*	*140*	*113*	*475*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2013	.35	.43	.53	.30	1.61
2014	.28	.39	.54	.36	1.57
2015	.32	.41	.56	.31	1.60
2016	*.31*	*.47*	*.59*	*.33*	*1.70*
2017	*.35*	*.50*	*.60*	*.35*	*1.80*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2012	.14	.14	.1775	.1775	.64
2013	.1775	.1775	.2025	.2025	.76
2014	.2025	.2025	.213	.213	.83
2015	.213	.213	.224	.224	.87
2016	.224				

BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Golden States Water Company, it supplies water to 260,151 customers in 75 cities and 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to 23,846 customers in the city of Big Bear Lake and in areas of San Bernardino County. Sold Chaparral City Water of Arizona (6/11). Has 707 employees. Blackrock, Inc., owns 9.8% of out. shares; Vanguard, 8.5%; off. & dir. 1.5%. (4/15 Proxy). Chairman: Lloyd Ross. President & Chief Executive Officer: Robert J. Sprowls. Inc: CA. Address: 630 East Foothill Boulevard, San Dimas, CA 91773. Tel: 909-394-3600. Internet: www.aswater.com.

Shares of American States Water continue to struggle. For the second straight quarter, the stock has underperformed both the water industry and the market averages. Since our January report, the value of the equity has declined 4% while many water utility stocks posted double-digit gains, and the S&P 500 Index rose about 2%.

We think the company's earnings may break out of their narrow range in 2016. Over the past three years, American States' share net has been close to $1.60. Last year's bottom line was held back due to an accounting practice regarding a water revenue adjusted mechanism (WRAP). In brief, a utility can't recognize certain revenues that can't be collected over a certain time. The funds will eventually be recouped, but have to be deferred. Indeed, management estimates that $1.4 million in revenues earned in 2015, will be realized in 2016. All told, the company's earnings should increase a solid 6%, to $1.70 a share. We are introducing our 2017 share-earnings estimate at $1.80, another healthy 6% increase.

Results at American States' nonregulated business will be the wild card. Through its ASUS subsidiary, the company installs and operates water facilities at major U.S. Army bases. The contracts to run the camps are for 50 years and enable American States to earn more than it does on its regulated operations. The armed forces are privatizing this business at many bases, and ASUS continues to bid on new proposals. Since the firm has enjoyed success here, we are assuming it will land more contracts in the future. In 2015, this business accounted for 20% of the company's net income, a percentage that may well increase in the coming years.

This equity is an Average (3) selection for year-ahead performance. AWR gets good marks for Safety (2: Above Average), Financial Strength (A), Earnings Predictability (90), and also has a low Beta coefficient (0.75). And even though conservative accounts are willing to accept lower future payouts in return for a reduced risk profile, we do not think that the stock's potential returns through 2019-2021 are sufficient. Hence, investors can do better elsewhere on a risk-adjusted basis.

James A. Flood *April 15, 2016*

(A) Primary earnings. Excludes nonrecurring gains/(losses): '04, 7¢; '05, 13¢; '06, 3¢; '08, (14¢); '10, (23¢) '11, 10¢. Next earnings report due early May.

(B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available.

(C) In millions, adjusted for splits.

Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	70
Earnings Predictability	90

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AMERICAN WATER NYSE-AWK

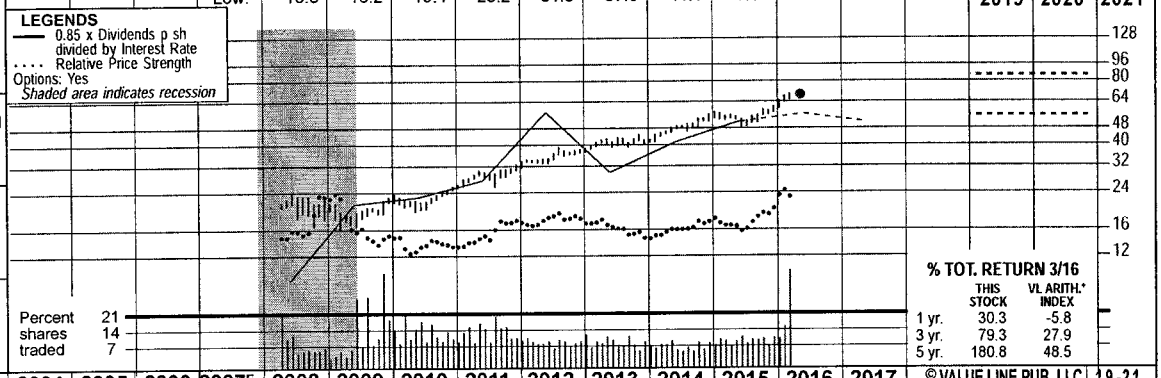
RECENT PRICE 69.05 | P/E RATIO 24.7 (Trailing: 26.2 Median: NMF) | RELATIVE P/E RATIO 1.35 | DIV'D YLD 2.1% | VALUE LINE

TIMELINESS 2 Lowered 4/8/16
SAFETY 3 New 7/25/08
TECHNICAL 2 Raised 3/18/16
BETA .70 (1.00 = Market)

High:	23.7	23.0	25.8	32.8	39.4	45.1	56.2	61.2	70.1			
Low:	16.5	16.2	19.4	25.2	31.3	37.0	41.1	48.4	58.9			

Target Price Range 2019 | 2020 | 2021

LEGENDS
— 0.85 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
Shaded area indicates recession



2019-21 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+25%)	8%
Low	55	(-20%)	-2%

Insider Decisions

	J	J	A	S	O	N	D	J	F
to Buy	0	0	1	0	0	0	0	0	0
Options	0	0	1	0	0	4	0	0	10
to Sell	0	0	1	0	0	4	0	0	0

Institutional Decisions

	2Q2015	3Q2015	4Q2015
to Buy	247	211	241
to Sell	206	220	227
Hld's(000)	145636	148013	147408

% TOT. RETURN 3/16

	THIS STOCK	VL ARITH.* INDEX
1 yr.	30.3	-5.8
3 yr.	79.3	27.9
5 yr.	180.8	48.5

2000	2001	2002	2003	2004	2005	2006	2007E	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	© VALUE LINE PUB. LLC	19-21
--	--	--	--	--	--	13.08	13.84	14.61	13.98	15.49	15.18	16.25	16.28	16.78	17.72	*18.70*	*19.75*	Revenues per sh	*22.30*
--	--	--	--	--	--	.65	d.47	2.87	2.89	3.56	3.73	4.27	4.36	4.75	5.13	*5.40*	*5.70*	"Cash Flow" per sh	*6.60*
--	--	--	--	--	--	d.97	d2.14	1.10	1.25	1.53	1.72	2.11	2.06	2.39	2.64	*2.80*	*3.05*	Earnings per sh A	*3.75*
--	--	--	--	--	--	--	--	.40	.82	.86	.90	1.21	.84	1.21	1.33	*1.45*	*1.57*	Div'd Decl'd per sh B■	*2.05*
--	--	--	--	--	--	4.31	4.74	6.31	4.50	4.38	5.27	5.25	5.50	5.33	6.51	*6.15*	*6.10*	Cap'l Spending per sh	*6.00*
--	--	--	--	--	--	23.86	28.39	25.64	22.91	23.59	24.11	25.11	26.52	27.39	28.25	*29.05*	*30.95*	Book Value per sh D	*34.65*
--	--	--	--	--	--	160.00	160.00	160.00	174.63	175.00	175.66	176.99	178.25	179.46	178.28	*179.00*	*181.00*	Common Shs Outst'g C	*187.50*
--	--	--	--	--	--	--	--	18.9	15.6	14.6	16.8	16.7	19.9	20.0	20.5	*Bold figures are*		Avg Ann'l P/E Ratio	*19.0*
--	--	--	--	--	--	--	--	1.14	1.04	.93	1.05	1.06	1.12	1.05	1.04	*Value Line*		Relative P/E Ratio	*1.20*
--	--	--	--	--	--	--	--	1.9%	4.2%	3.8%	3.1%	3.4%	2.0%	2.5%	2.5%	*estimates*		Avg Ann'l Div'd Yield	*2.8%*
						2093.1	2214.2	2336.9	2440.7	2710.7	2666.2	2876.9	2901.9	3011.3	3159.0	*3350*	*3575*	Revenues ($mill)	*4180*
						d155.8	d342.3	187.2	209.9	267.8	304.9	374.3	369.3	429.8	476.0	*500*	*550*	Net Profit ($mill)	*700*
						--	--	37.4%	37.9%	40.4%	39.5%	40.7%	39.1%	39.4%	39.1%	*38.5%*	*38.5%*	Income Tax Rate	*37.0%*
						--	--	--	--	--	--	6.2%	5.1%	5.1%	1.4%	*2.5%*	*3.0%*	AFUDC % to Net Profit	*3.0%*
						56.1%	50.9%	53.1%	56.9%	56.8%	55.7%	53.9%	52.4%	52.4%	53.7%	*55.0%*	*55.0%*	Long-Term Debt Ratio	*55.0%*
						43.9%	49.1%	46.9%	43.1%	43.2%	44.2%	46.1%	47.6%	47.4%	46.2%	*45.0%*	*45.0%*	Common Equity Ratio	*45.0%*
						8692.8	9245.7	8750.2	9289.0	9561.3	9580.3	9635.5	9940.7	10364	10911	*11610*	*12300*	Total Capital ($mill)	*14540*
						8720.6	9318.0	9991.8	10524	11059	11021	11739	12391	12900	13933	*14600*	*15400*	Net Plant ($mill)	*17200*
						NMF	NMF	3.7%	3.8%	4.4%	4.8%	5.4%	5.1%	5.5%	5.7%	*5.5%*	*6.0%*	Return on Total Cap'l	*6.0%*
						NMF	NMF	4.6%	5.2%	6.5%	7.2%	8.4%	7.8%	8.7%	9.4%	*9.5%*	*10.0%*	Return on Shr. Equity	*10.5%*
						NMF	NMF	4.6%	5.2%	6.5%	7.2%	8.4%	7.8%	8.7%	9.4%	*9.5%*	*10.0%*	Return on Com Equity	*10.5%*
						NMF	NMF	3.0%	1.8%	2.8%	3.5%	3.6%	4.7%	4.3%	4.7%	*4.5%*	*5.0%*	Retained to Com Eq	*5.0%*
						--	--	34%	65%	56%	52%	57%	40%	50%	50%	*52%*	*51%*	All Div'ds to Net Prof	*55%*

CAPITAL STRUCTURE as of 12/31/15
Total Debt $6544.0 mil. Due in 5 Yrs $1272.0 mil.
LT Debt $5862.0 mil. LT Interest $293.0 mil.
(54% of Cap'l)

Leases, Uncapitalized: Annual rentals $14.0 mill.
Pension Assets 12/15 $1376.0 mill
Oblig. $1584.0 mill.
Pfd Stock $12.0 mill. Pfd Div'd $.5 mill

Common Stock 178,008,765 shs.
as of 2/19/2016

MARKET CAP: $12.3 billion (Large Cap)

CURRENT POSITION ($MILL.)	2013	2014	12/31/15
Cash Assets	27.0	23.1	45.0
Accts Receivable	244.6	267.1	255.0
Other	523.4	638.3	357.0
Current Assets	550.4	661.4	657.0
Accts Payable	264.6	285.8	126.0
Debt Due	644.5	511.1	682.0
Other	326.4	444.1	725.0
Current Liab.	1235.5	1241.0	1533.0

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '13-'15 to '19-'21
Revenues	--	3.0%	*4.5%*
"Cash Flow"	--	9.0%	*5.5%*
Earnings	--	13.0%	*8.0%*
Dividends	--	10.0%	*10.5%*
Book Value	--	2.5%	*4.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2013	636.1	724.3	829.2	712.3	2901.9
2014	679.0	754.8	846.1	731.4	3011.3
2015	698.0	782.0	896.0	783.0	3159.0
2016	*735*	*830*	*950*	*835*	*3350*
2017	*775*	*865*	*975*	*960*	*3575*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2013	.32	.57	.84	.33	2.06
2014	.39	.62	.86	.52	2.39
2015	.44	.68	.96	.56	2.64
2016	*.46*	*.74*	*1.03*	*.57*	*2.80*
2017	*.53*	*.77*	*1.10*	*.65*	*3.05*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2012	.23	.23	.25	.50	1.21
2013	--	.28	.28	.28	.84
2014	.28	.31	.31	.31	1.21
2015	.31	.34	.34	.34	1.33
2016	.34				

BUSINESS: American Water Works Company, Inc. is the largest investor-owned water and wastewater utility in the U.S., providing services to over 15 million people in over 47 states and Canada. (Regulated presence in 16 states.) Nonregulated business assists municipalities and military bases with the maintenance and upkeep as well. Regulated operations made up 86.8% of 2015 revenues. New Jersey is its largest market accounting for 25.7% of regulated revenues. Has 6,700 employees. BlackRock, Inc., owns 10.2% of outstanding shares; Vanguard, 7.2%; officers & directors, less than 1.0%. (4/16 Proxy). President & CEO: Susan Story. Chairman: George Mackenzie. Address: 1025 Laurel Oak Road, Voorhees, NJ 08043. Tel.: 856-346-8200. Internet: www.amwater.com.

Shares of American Water Works have been on an impressive run. Since our January report, the value of the stock has risen nearly 15%, or 1,300 basis points greater than the broader market averages. A partial reason for the strong showing was the company's inclusion into the S&P 500 Index. This resulted in greater demand for AWK, as specific index funds were forced to purchase the equity.

Meanwhile, a recently proposed acquisition could augur well for future takeovers. The water industry is comprised of thousands of small municipally run districts. In the recent past, bigger investor-owned utilities have been gradually absorbing hundreds of these small water authorities into their operations. Due to the vast amounts of redundancies in the industry, significant cost savings have been generated. The recent $190 million agreement to acquire the wastewater assets from the cash-strapped city of Scranton is substantially larger than previous purchases. Thus, the size of mergers could well climb as economically depressed districts struggle to raise the capital needed to be in compliance with EPA requirements. As the largest member of the group, by a wide margin, American Water stands to benefit the most from this trend.

Controlling expenses and increasing the rate base should continue to drive the utility's earnings growth. In this decade, management has been focused on lowering the company's operating and maintenance (O&M) ratio. With the exception of last year (a rise caused by the purchase of a nonregulated business), this percentage has been on the decline. Indeed, the ratio, which stood at 44% in 2010, fell to 36% in 2015, and should be reduced to 34% by 2020. Also, American Water plans on spending $1.1 billion annually over the next five years to upgrade its water infrastructure. As these expenditures are incorporated into the rate base, profits should expand.

This stock is mainly for momentum investors. AWK is favorably ranked for year-ahead performance. With the recent spike in the value of the equity, however, all the positive developments we expect from the company through 2019-2021 appear to be factored into the share price.

James A. Flood *April 15, 2016*

(A) Diluted earnings. Excludes nonrecurring losses: '08, $4.62; '09, $2.63; '11, $0.07. Discontinued operations: '06, ($0.04); '11, $0.03; '12, ($0.10); '13,($0.01). GAAP used as of 2014. Next earnings report due early May. Quarterly earnings may not sum due to rounding. (B) Dividends paid in March, June, September, and December. ■ Div. reinvestment available. Two payments made in 4th quarter of 2012. (C) In millions. (D) Includes intangibles. In 2015: $1.38 billion, $7.74/share. (E) Pro forma numbers for '06 & '07.

Company's Financial Strength	B+
Stock's Price Stability	100
Price Growth Persistence	85
Earnings Predictability	35

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AQUA AMERICA NYSE-WTR

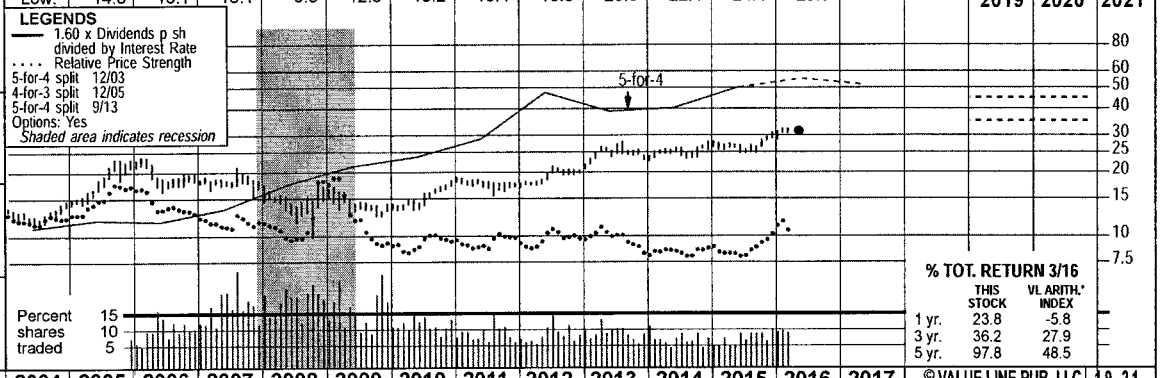
RECENT PRICE 31.39 | P/E RATIO 25.7 (Trailing: 27.5 Median: 22.0) | RELATIVE P/E RATIO 1.40 | DIV'D YLD 2.4% | VALUE LINE

TIMELINESS 3 Lowered 3/25/16
SAFETY 2 Raised 4/20/12
TECHNICAL 2 Raised 3/11/16
BETA .75 (1.00 = Market)

High:	23.4	23.8	21.3	17.6	17.2	18.4	19.0	21.5	28.1	28.2	31.1	32.4
Low:	14.0	16.1	15.1	9.8	12.3	13.2	15.4	16.8	20.6	22.4	24.4	28.3

Target Price Range 2019 | 2020 | 2021

LEGENDS
— 1.60 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
5-for-4 split 12/03
4-for-3 split 12/05
5-for-4 split 9/13
Options: Yes
Shaded area indicates recession



2019-21 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	45	(+45%)	12%
Low	35	(+10%)	6%

Insider Decisions

	J	J	A	S	O	N	D	J	F
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	1	0	1	3	0	1	0
to Sell	1	0	2	1	1	4	1	0	0

Institutional Decisions

	2Q2015	3Q2015	4Q2015
to Buy	156	166	182
to Sell	145	138	149
Hld's(000)	82530	84833	83005

% TOT. RETURN 3/16

	THIS STOCK	VL ARITH.* INDEX
1 yr.	23.8	-5.8
3 yr.	36.2	27.9
5 yr.	97.8	48.5

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	© VALUE LINE PUB. LLC	19-21
1.97	2.16	2.28	2.38	2.78	3.08	3.23	3.61	3.71	3.93	4.21	4.10	4.32	4.32	4.37	4.61	*4.80*	*5.10*	Revenues per sh	*6.05*
.61	.69	.76	.77	.87	.97	1.01	1.10	1.14	1.29	1.42	1.45	1.51	1.82	1.89	1.87	*2.10*	*2.25*	"Cash Flow" per sh	*2.65*
.37	.41	.43	.46	.51	.57	.56	.57	.58	.62	.72	.83	.87	1.16	1.20	1.14	*1.35*	*1.45*	Earnings per sh A	*1.75*
.23	.24	.26	.28	.29	.32	.35	.38	.41	.44	.47	.50	.54	.58	.63	.69	*.74*	*.80*	Div'd Decl'd per sh B■	*1.05*
.93	.87	.96	1.06	1.23	1.47	1.64	1.43	1.58	1.66	1.89	1.90	1.98	1.73	1.84	2.07	*2.10*	*2.10*	Cap'l Spending per sh	*2.10*
3.08	3.32	3.49	4.27	4.71	5.04	5.57	5.85	6.26	6.50	6.81	7.21	7.90	8.63	9.27	9.78	*10.90*	*11.70*	Book Value per sh	*13.10*
139.78	142.47	141.49	154.31	158.97	161.21	165.41	166.75	169.21	170.61	172.46	173.60	175.43	177.93	178.59	176.54	*177.00*	*177.00*	Common Shs Outst'g C	*177.00*
18.2	23.6	23.6	24.5	25.1	31.8	34.7	32.0	24.9	23.1	21.1	21.3	21.9	21.2	20.8	23.5	*Bold figures are*		Avg Ann'l P/E Ratio	*22.5*
1.18	1.21	1.29	1.40	1.33	1.69	1.87	1.70	1.50	1.54	1.34	1.34	1.39	1.19	1.09	1.19	*Value Line*		Relative P/E Ratio	*1.40*
3.3%	2.5%	2.5%	2.5%	2.3%	1.8%	1.8%	2.1%	2.8%	3.1%	3.1%	2.8%	2.8%	2.4%	2.5%	2.6%	*estimates*		Avg Ann'l Div'd Yield	*2.7%*

CAPITAL STRUCTURE as of 12/31/15
Total Debt $1795.9 mill. Due in 5 Yrs $441.5 mill.
LT Debt $1743.6 mill. LT Interest $75.4 mill.
(50% of Cap'l)

Pension Assets-12/15 $238.6 mill.
Oblig. $306.5 mill.

Pfd Stock None
Common Stock 177,042,334 shares as of 2/10/16

MARKET CAP: $5.6 billion (Large Cap)

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		19-21
533.5	602.5	627.0	670.5	726.1	712.0	757.8	768.6	779.9	814.2	*850*	*900*	Revenues ($mill)	*1070*
92.0	95.0	97.9	104.4	124.0	144.8	153.1	205.0	213.9	201.8	*240*	*255*	Net Profit ($mill)	*310*
39.6%	38.9%	39.7%	39.4%	39.2%	32.9%	39.0%	10.0%	10.5%	6.9%	*10.0%*	*11.0%*	Income Tax Rate	*25.0%*
--	--	--	--	--	--	--	1.1%	2.4%	3.1%	*3.0%*	*3.0%*	AFUDC % to Net Profit	*3.0%*
51.6%	55.4%	54.1%	55.6%	56.6%	52.7%	52.7%	48.9%	48.5%	50.3%	*51.0%*	*52.0%*	Long-Term Debt Ratio	*52.0%*
48.4%	44.6%	45.9%	44.4%	43.4%	47.3%	47.3%	51.1%	51.5%	49.7%	*49.0%*	*48.0%*	Common Equity Ratio	*48.0%*
1904.4	2191.4	2306.6	2495.5	2706.2	2646.8	2929.7	3003.6	3216.0	3469.5	*3930*	*4330*	Total Capital ($mill)	*4850*
2506.0	2792.8	2997.4	3227.3	3469.3	3612.9	3936.2	4167.3	4402.0	4688.9	*4930*	*5170*	Net Plant ($mill)	*5500*
6.4%	5.9%	5.7%	5.6%	5.9%	6.9%	6.6%	8.0%	7.8%	6.9%	*7.5%*	*7.0%*	Return on Total Cap'l	*7.5%*
10.0%	9.7%	9.3%	9.4%	10.6%	11.6%	11.0%	13.4%	12.9%	11.7%	*12.5%*	*12.5%*	Return on Shr. Equity	*13.5%*
10.0%	9.7%	9.3%	9.4%	10.6%	11.6%	11.0%	13.4%	12.9%	11.7%	*12.5%*	*12.5%*	Return on Com Equity	*13.5%*
3.7%	3.2%	2.8%	2.7%	3.7%	4.6%	4.3%	6.7%	6.1%	4.7%	*7.0%*	*7.0%*	Retained to Com Eq	*4.5%*
63%	67%	70%	72%	65%	60%	61%	50%	52%	60%	*55%*	*55%*	All Div'ds to Net Prof	*60%*

CURRENT POSITION ($MILL.)	2013	2014	12/31/15
Cash Assets	5.1	4.1	3.2
Receivables	95.4	97.0	99.1
Inventory (AvgCst)	11.4	12.8	12.4
Other	59.8	38.6	13.7
Current Assets	171.7	152.5	128.4
Accts Payable	65.8	60.0	56.5
Debt Due	123.0	70.0	52.3
Other	78.1	95.3	84.4
Current Liab.	266.9	225.3	193.2

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '13-'15 to '19-'21
Revenues	5.0%	2.5%	*5.5%*
"Cash Flow"	8.0%	8.0%	*6.0%*
Earnings	8.5%	13.0%	*7.0%*
Dividends	8.0%	7.5%	*9.0%*
Book Value	7.0%	7.0%	*6.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2013	180.0	195.7	204.3	188.6	768.6
2014	182.7	195.3	210.5	191.4	779.9
2015	190.3	205.8	221.0	197.1	814.2
2016	*197*	*215*	*233*	*205*	*850*
2017	*205*	*225*	*255*	*215*	*900*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2013	.26	.30	.36	.24	1.16
2014	.24	.31	.38	.27	1.20
2015	.27	.32	.38	.17	1.14
2016	*.28*	*.35*	*.42*	*.30*	*1.35*
2017	*.30*	*.37*	*.46*	*.32*	*1.45*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2012	.132	.132	.132	.14	.54
2013	.14	.14	.152	.152	.58
2014	.152	.152	.165	.165	.63
2015	.165	.165	.178	.178	.69
2016	.178				

BUSINESS: Aqua America, Inc. is the holding company for water and wastewater utilities that serve approximately three million residents in Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, Florida, Indiana, and five other states. Has 1,617 employees. Acquired AquaSource, 7/13; North Maine Utilities, 7/15; and others. Water supply revenues '2015: residential, 69%; commercial, 18%; industrial & other, 13%. Officers and directors own less than 1% of the common stock; Vangurad Group, 7.7%; Blackrock, Inc, 7.3%; State Street Capital, 5.5% (3/16 Proxy). President & Chief Executive Officer: Christopher Franklin. Incorporated: Pennsylvania. Address: 762 West Lancaster Avenue, Bryn Mawr, Pennsylvania 19010. Tel.: 610-525-1400. Internet: www.aquaamerica.com.

Aqua America's earnings should get back on track this year. In the final quarter of 2015, the water utility had to take a $0.12-a-share impairment charge related to the poor performance of a non regulated business. In any case, with the help of rate relief in several states and synergies realized from previous acquisitions, we expect Aqua's share earnings to recover to $1.35 in 2016, an 18% increase over 2014's depressed level. Next year, we think the bottom line should climb a solid 7%, to $1.45 a share.

Acquisitions may play an even more important role in the company's strategy. The American water market consists of over 50,000 major-to-midsized water districts. Because there are many redundancies in the industry, large utilities can buy small ones and realize significant cost savings when absorbing them into existing operations. Since 2000, Aqua has bought almost 300 small water operations. Management recently indicated a proclivity to acquire much-bigger systems. The likely candidates are water districts in financially depressed areas. There are many municipally-run water utilities that don't have the needed capital required to modernize aging infrastructures and to make costly improvements mandated by the EPA. The city of Scranton, PA recently agreed to sell its wastewater assets to American Water Works for $190 million. Last year, both Indiana and New Jersey passed laws making the process easier for a strong water company to take over a weak one. These larger potential purchases should enable Aqua to maintain healthy earnings and dividend growth for the foreseeable future.

Finances will probably weaken modestly. Aqua was able to keep its debt-to-total capital ratio below 50% for 2013 and 2014 before exceeding it in 2015. With a capital budget of about $1.1 billion over the next three years, we think the ratio will be about 52% through late decade.

The stock's strong performance has removed much of its appeal. Since mid-August, shares of Aqua have outpaced the S&P 500 Index by about 1,700 basis points. Thus, most of the company's positive attributes appear to be fully reflected in the current price of the equity.

James A. Flood *April 15, 2016*

(A) Diluted egs. Excl. nonrec. gains: '00, 2¢; '01, 2¢; '02, 4¢; '03, 3¢; '12, 18¢. Excl. gain from disc. operations: '12, 7¢; '13, 9¢; '14, 11¢. May not sum due to rounding. Next earnings report due early May.
(B) Dividends historically paid in early March, June, Sept. & Dec. ■ Div'd. reinvestment plan available (5% discount).
(C) In millions, adjusted for stock splits.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	70
Earnings Predictability	95

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ARTESIAN RES. CORP. NDQ--ARTNA

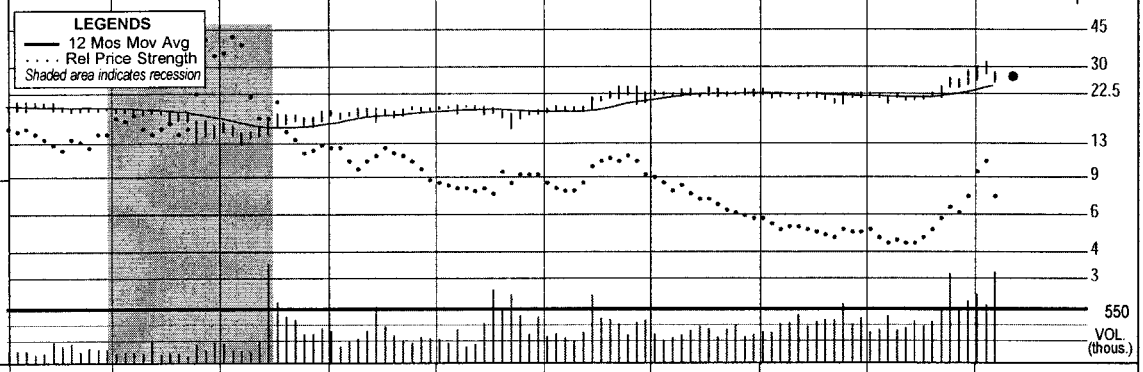
RECENT PRICE	TRAILING P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE
27.07	21.5	1.15	3.3%	

RANKS

PERFORMANCE	1	Highest
Technical	1	Highest
SAFETY	3	Average
BETA .55	(1.00 = Market)	

Financial Strength	B
Price Stability	90
Price Growth Persistence	40
Earnings Predictability	75

20.67	19.31	18.73	19.59	19.99	24.43	24.27	23.82	29.16	31.94	High
18.26	13.00	12.81	16.43	15.16	18.20	21.52	19.85	20.00	25.17	Low



© VALUE LINE PUBLISHING LLC	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016/2017
SALES PER SH	7.20	7.59	8.11	8.48	7.56	8.10	7.82	8.13	9.41	
"CASH FLOW" PER SH	1.57	1.65	1.84	1.92	1.64	2.04	1.87	2.04	2.46	
EARNINGS PER SH	.90	.86	.97	1.00	.83	1.13	.94	1.07	1.26	*1.29 A,B/1.43 C*
DIV'DS DECL'D PER SH	.66	.71	.72	.75	.76	.79	.82	.85	.87	
CAP'L SPENDING PER SH	3.66	6.09	2.32	2.57	1.83	2.36	2.40	2.66	2.53	
BOOK VALUE PER SH	11.66	11.86	12.15	12.44	13.12	13.57	13.80	14.09	16.17	
COMMON SHS OUTST'G (MILL)	7.30	7.40	7.51	7.65	8.61	8.71	8.83	8.91	8.18	
AVG ANN'L P/E RATIO	21.5	20.1	16.4	18.2	22.5	18.3	23.9	20.5	18.0	*21.0/18.9*
RELATIVE P/E RATIO	1.14	1.21	1.09	1.16	1.41	1.17	1.34	1.08	.93	
AVG ANN'L DIV'D YIELD	3.4%	4.1%	4.5%	4.1%	4.1%	3.8%	3.7%	3.9%	3.8%	
SALES ($MILL)	52.5	56.2	60.9	64.9	65.1	70.6	69.1	72.5	77.0	*Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.*
OPERATING MARGIN	45.6%	45.1%	46.9%	46.5%	45.5%	48.7%	47.0%	48.8%	43.0%	
DEPRECIATION ($MILL)	5.2	5.8	6.6	7.0	7.4	7.9	8.3	8.7	8.8	
NET PROFIT ($MILL)	6.3	6.4	7.3	7.6	6.7	9.8	8.3	9.5	11.3	
INCOME TAX RATE	39.8%	40.8%	40.1%	40.0%	40.8%	40.2%	40.2%	40.1%	--	
NET PROFIT MARGIN	11.9%	11.4%	11.9%	11.7%	10.4%	14.0%	12.0%	13.1%	14.7%	
WORKING CAP'L ($MILL)	2.5	d20.9	d23.3	d27.9	d11.4	d11.4	d12.3	d13.5	d8.8	
LONG-TERM DEBT ($MILL)	91.8	107.6	106.0	105.1	106.5	106.3	105.5	105.0	103.6	
SHR. EQUITY ($MILL)	85.1	87.8	91.2	95.1	113.0	118.2	121.8	125.6	132.3	
RETURN ON TOTAL CAP'L	5.3%	4.7%	5.2%	5.6%	4.6%	5.9%	5.1%	5.5%	6.3%	
RETURN ON SHR. EQUITY	7.4%	7.3%	8.0%	8.0%	6.0%	8.3%	6.8%	7.6%	8.5%	
RETAINED TO COM EQ	2.1%	1.4%	2.1%	2.0%	.5%	2.5%	.9%	1.6%	2.6%	
ALL DIV'DS TO NET PROF	71%	81%	74%	75%	92%	70%	87%	79%	69%	

A No. of analysts changing earn. est. in last 4 days: 0 up, 0 down, consensus 5-year earnings growth not available. B Based upon 2 analysts' estimates. C Based upon one analyst's estimate.

ANNUAL RATES

of change (per share)	5 Yrs.	1 Yr.
Sales	1.0%	15.5%
"Cash Flow"	3.5%	20.5%
Earnings	3.0%	18.0%
Dividends	3.0%	3.0%
Book Value	4.0%	14.5%

Fiscal Year	QUARTERLY SALES ($mill.) 1Q	2Q	3Q	4Q	Full Year
12/31/13	16.3	17.8	18.1	16.9	69.1
12/31/14	16.9	17.9	19.6	18.1	72.5
12/31/15	18.0	19.5	20.8	18.7	77.0
12/31/16					

Fiscal Year	EARNINGS PER SHARE 1Q	2Q	3Q	4Q	Full Year
12/31/12	.28	.32	.33	.20	1.13
12/31/13	.20	.28	.29	.17	.94
12/31/14	.24	.22	.37	.24	1.07
12/31/15	.28	.36	.41	.21	1.26
12/31/16					

Cal-endar	QUARTERLY DIVIDENDS PAID 1Q	2Q	3Q	4Q	Full Year
2013	.203	.206	.206	.209	.82
2014	.209	.212	.212	.215	.85
2015	.215	.218	.218	.222	.87
2016	.222				

INSTITUTIONAL DECISIONS

	2Q'15	3Q'15	4Q'15
to Buy	33	33	40
to Sell	27	25	29
Hld's(000)	2853	3049	3248

ASSETS ($mill.)	2013	2014	12/31/15
Cash Assets	.4	.2	.2
Receivables	8.1	8.4	6.4
Inventory	1.5	1.9	1.7
Other	3.3	6.1	6.1
Current Assets	13.3	16.6	14.4
Property, Plant & Equip, at cost	472.9	496.2	514.8
Accum Depreciation	89.8	98.4	105.2
Net Property	383.1	397.8	409.6
Other	7.4	7.8	7.6
Total Assets	403.8	422.2	431.6
LIABILITIES ($mill.)			
Accts Payable	4.1	3.8	5.5
Debt Due	12.2	19.9	11.8
Other	9.3	6.5	5.9
Current Liab	25.6	30.2	23.2

LONG-TERM DEBT AND EQUITY as of 12/31/15

Total Debt $115.4 mill. **Due in 5 Yrs.** $62.2 mill.
LT Debt $103.6 mill.
Including Cap. Leases None (44% of Cap'l)

Leases, Uncapitalized Annual rentals $.1 mill.

Pension Liability $1.1 mill. in '15 vs. $.3 mill. in '14

Pfd Stock None **Pfd Div'd Paid** None

Common Stock 8,184,000 shares (56% of Cap'l)

INDUSTRY: Water Utility

BUSINESS: Artesian Resources Corp. operates as a holding company of wholly-owned subsidiaries offering water, wastewater services, and related services. Artesian Water Co., the principal subsidiary, is the oldest and largest investor-owned water utility on the Delmarva Peninsula, supplying roughly 7.6 billion gallons of water per year through 1,218 miles of water main to about 300,000 people. Artesian Wastewater Management, Inc. is a regulated entity that owns wastewater collection and treatment infrastructure and provides wastewater services to customers in Delaware as a regulated public wastewater service company. As of December 31, 2015, it owned and operated four wastewater treatment facilities, which are capable of treating approximately 730,000 gallons per day and can be expanded to treat 1.6 million gallons per day. Its Artesian Water Maryland distributes and sells water to residential, commercial, industrial, and municipal customers in Cecil County, MD. Has 231 employees. Chairman, C.E.O. & President: Dian C. Taylor. Address: 664 Churchmans Rd., Newark, DE 19702. Tel.: (302) 453-6900. Internet: http://www.artesianwater.com. *J.V.*

April 15, 2016

TOTAL SHAREHOLDER RETURN

Dividends plus appreciation as of 3/31/2016

3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
1.70%	17.76%	35.61%	39.35%	73.76%

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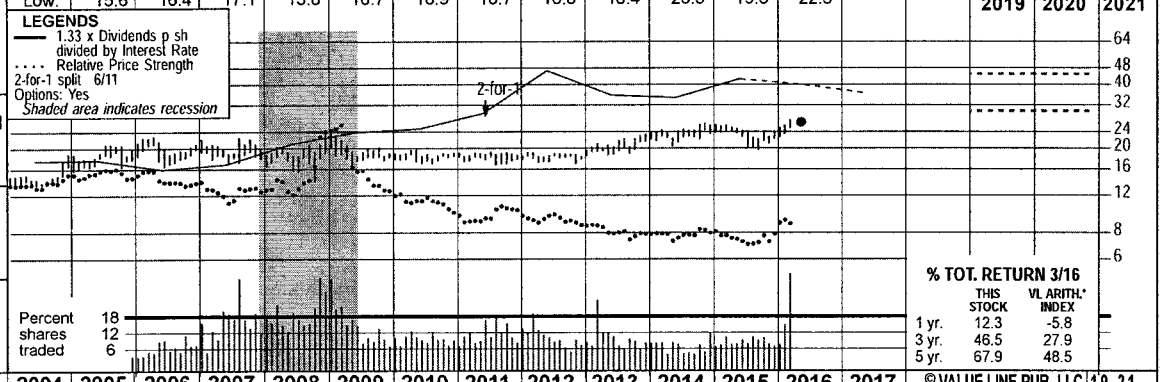
CALIFORNIA WATER NYSE-CWT

RECENT PRICE	26.59	P/E RATIO	25.8 (Trailing: 28.3 / Median: 20.0)	RELATIVE P/E RATIO	1.41	DIV'D YLD	2.6%	VALUE LINE

TIMELINESS **3** Raised 1/8/16
SAFETY **3** Lowered 7/27/07
TECHNICAL **2** Lowered 4/15/16
BETA .75 (1.00 = Market)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
High:							21.1	22.9	22.7	23.3	24.1	19.8	19.4	19.3	23.4	26.4	26.0	27.3
Low:							15.6	16.4	17.1	13.8	16.7	16.9	16.7	16.8	18.4	20.3	19.5	22.5

Target Price Range 2019 | 2020 | 2021



2019-21 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	45	(+70%)	16%
Low	30	(+15%)	6%

Insider Decisions

	J	J	A	S	O	N	D	J	F
to Buy	0	0	1	1	1	1	1	1	1
Options	0	0	0	10	10	1	0	0	0
to Sell	0	0	1	0	0	0	0	0	0

Institutional Decisions

	2Q2015	3Q2015	4Q2015
to Buy	82	69	69
to Sell	66	74	75
Hld's(000)	29659	28655	30579

Percent shares traded 18 12 6

% TOT. RETURN 3/16

	THIS STOCK	VL ARITH.* INDEX
1 yr.	12.3	-5.8
3 yr.	46.5	27.9
5 yr.	67.9	48.5

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	© VALUE LINE PUB. LLC	19-21
8.08	8.13	8.67	8.18	8.59	8.72	8.10	8.88	9.90	10.82	11.05	12.00	13.34	12.23	12.50	12.29	12.60	13.00	Revenues per sh	14.70
1.26	1.10	1.32	1.26	1.42	1.52	1.36	1.56	1.86	1.93	1.93	2.07	2.32	2.21	2.47	2.22	2.35	2.65	"Cash Flow" per sh	3.25
.66	.47	.63	.61	.73	.74	.67	.75	.95	.98	.91	.86	1.02	1.02	1.19	.94	1.05	1.35	Earnings per sh A	1.60
.55	.56	.56	.56	.57	.57	.58	.58	.59	.59	.60	.62	.63	.64	.65	.67	.69	.71	Div'd Decl'd per sh B ■	.99
1.23	2.04	2.91	2.19	1.87	2.01	2.14	1.84	2.41	2.66	2.97	2.83	3.04	2.58	2.76	3.69	3.65	3.55	Cap'l Spending per sh	3.30
6.45	6.48	6.56	7.22	7.83	7.90	9.07	9.25	9.72	10.13	10.45	10.76	11.28	12.54	13.11	13.41	13.55	14.25	Book Value per sh C	16.00
30.29	30.36	30.36	33.86	36.73	36.78	41.31	41.33	41.45	41.53	41.67	41.82	41.98	47.74	47.81	47.88	48.00	48.00	Common Shs Outst'g D	50.00
19.6	27.1	19.8	22.1	20.1	24.9	29.2	26.1	19.8	19.7	20.3	21.3	17.9	20.1	19.7	24.8	Bold figures are		Avg Ann'l P/E Ratio	23.0
1.27	1.39	1.08	1.26	1.06	1.33	1.58	1.39	1.19	1.31	1.29	1.34	1.14	1.13	1.04	1.26	Value Line		Relative P/E Ratio	1.45
4.3%	4.4%	4.5%	4.2%	3.9%	3.1%	2.9%	3.0%	3.1%	3.1%	3.2%	3.4%	3.5%	3.1%	2.8%	2.9%	estimates		Avg Ann'l Div'd Yield	2.6%

CAPITAL STRUCTURE as of 12/31/15
Total Debt $552.5 mill. Due in 5 Yrs $175.3 mill.
LT Debt $512.3 mill. LT Interest $27.2 mill.
(44% of Cap'l)

Pension Assets-12/15 $328.6 mill.
Oblig. $501.9 mill.

Pfd Stock None

Common Stock 47,875,000 shs.

MARKET CAP: $1.3 billion (Mid Cap)

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		19-21
334.7	367.1	410.3	449.4	460.4	501.8	560.0	584.1	597.5	588.3	605	625	Revenues ($mill) E	735
25.6	31.2	39.8	40.6	37.7	36.1	42.6	47.3	56.7	45.0	50.0	65.0	Net Profit ($mill)	80.0
37.4%	39.9%	37.7%	40.3%	39.5%	40.5%	37.5%	30.3%	33.0%	35.3%	32.0%	32.0%	Income Tax Rate	35.0%
10.6%	8.3%	8.6%	7.6%	4.2%	7.6%	8.0%	4.3%	2.7%	4.2%	5.0%	5.0%	AFUDC % to Net Profit	5.0%
43.5%	42.9%	41.6%	47.1%	52.4%	51.7%	47.8%	41.6%	40.1%	44.4%	44.5%	43.5%	Long-Term Debt Ratio	42.0%
55.9%	56.6%	58.4%	52.9%	47.6%	48.3%	52.2%	58.4%	59.9%	55.6%	55.5%	56.5%	Common Equity Ratio	58.0%
670.1	674.9	690.4	794.9	914.7	931.5	908.2	1024.9	1045.9	1154.5	1175	1210	Total Capital ($mill)	1375
941.5	1010.2	1112.4	1198.1	1294.3	1381.1	1457.1	1515.8	1590.4	1701.8	1775	1815	Net Plant ($mill)	1900
5.2%	5.9%	7.1%	6.5%	5.5%	5.5%	6.3%	6.0%	6.3%	5.1%	5.5%	6.5%	Return on Total Cap'l	7.0%
6.8%	8.1%	9.9%	9.6%	8.6%	8.0%	9.0%	7.9%	9.1%	7.0%	7.5%	9.5%	Return on Shr. Equity	10.0%
6.8%	8.1%	9.9%	9.6%	8.6%	8.0%	9.0%	7.9%	9.1%	7.0%	7.5%	9.5%	Return on Com Equity	10.0%
1.0%	1.8%	3.8%	3.8%	3.0%	2.3%	3.4%	3.4%	4.1%	2.0%	2.5%	4.5%	Retained to Com Eq	4.0%
86%	77%	61%	60%	66%	71%	62%	56%	55%	71%	66%	52%	All Div'ds to Net Prof	62%

CURRENT POSITION ($MILL.)	2013	2014	12/31/15
Cash Assets	27.5	19.6	8.8
Other	112.0	134.5	118.8
Current Assets	139.5	154.1	127.6
Accts Payable	55.1	59.4	66.4
Debt Due	54.7	85.7	40.2
Other	56.8	72.6	41.9
Current Liab.	166.6	217.7	148.5

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '13-'15 to '19-'21
Revenues	4.0%	5.0%	2.0%
"Cash Flow"	6.0%	5.5%	5.0%
Earnings	5.0%	4.0%	6.0%
Dividends	1.5%	2.0%	6.5%
Book Value	5.5%	5.0%	4.0%

Cal-endar	QUARTERLY REVENUES ($ mill.)E Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2013	111.4	154.6	184.4	133.7	584.1
2014	110.5	158.4	191.2	137.4	597.5
2015	122.0	144.4	183.5	138.4	588.3
2016	125	150	190	140	605
2017	130	155	195	145	625

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2013	.01	.28	.61	.12	1.02
2014	d.11	.36	.70	.24	1.19
2015	.03	.21	.52	.18	.94
2016	.03	.22	.60	.20	1.05
2017	.05	.35	.65	.30	1.35

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2012	.1575	.1575	.1575	.1575	.63
2013	.16	.16	.16	.16	.64
2014	.1625	.1625	.1625	.1625	.65
2015	.1675	.1675	.1675	.1675	.67
2016	.1725				

BUSINESS: California Water Service Group provides regulated and nonregulated water service to 477,900 customers in 85 communities in the state of California. Accounts for over 94% of total customers. Also operates in Washington, New Mexico, and Hawaii. Main service areas: San Francisco Bay area, Sacramento Valley, Salinas Valley, San Joaquin Valley & parts of Los Angeles. Acquired Rio Grande Corp; West Hawaii Utilities (9/08). Revenue breakdown, '15: residential, 70%; business, 20%; industrial, 5%; public authorities, 4%; other 1%. '15 reported depreciation rate: 4.0%. Has 1,155 employees. President, Chairman, and CEO: Peter C. Nelson. Inc.: DE. Address: 1720 North First St., San Jose, CA 95112-4598. Tel.: 408-367-8200. Internet: www.calwatergroup.com.

The California Water Service Group did not have the best financial showing in 2015. Both the top and bottom lines contracted on a year-over-year basis. Revenues of $588 million slipped nearly $10 million from the prior-year tally. The earnings decline was even more pronounced. Annual share net shrank by a quarter, to $0.94, its lowest figure in almost five years. Indeed, the ongoing pressures of the California drought, alongside higher maintenance and pension expenses, contributed to the lackluster performance.

Our approach to 2016 is a cautious one. Namely, the unbilled revenues figure (incurred expenses that CWT is waiting to be reimbursed for) is slightly thinner than for previous quarters. On top of that, with a higher tax rate in place, bottom-line growth will probably be limited. As a result, we have trimmed our 2016 share-net estimate by $0.15, to $1.05.

However, earnings should see a meaningful rebound in 2017. At the moment, unfavorable drought conditions seem to be on their last leg. As the environment improves, related expenses will probably abate. Too, the main catalyst on the horizon is the California General Rate Case, which has an ask of just below $700 million. All in all, we think CWT will earn $1.35 a share in 2017. Revenues should get a lift, as well.

Further capital investments might be in the cards over the pull to late decade. Improvements to the infrastructure, water supply, and tanks are at the top of the list. We think there is the potential for some acquisition activity, too. CWT is in good financial shape, with decent liquidity and a debt profile in line with the industry's average.

The dividend remains a feature here. At present, CWT shares yield 2.6%, somewhat low compared to historical levels. Nevertheless, we think the payout ratio will be consistent through late decade, with steady dividend hikes.

California Water shares are neutrally ranked for relative year-ahead price performance. What's more, investors with a long-term bent will find better options elsewhere, at this juncture, as total return potential three to five years hence is below the *Value Line* median.

Nicholas P. Patrikis *April 15, 2016*

(A) Basic EPS. Excl. nonrecurring gain (loss): '00, (4¢); '01, 2¢; '02, 4¢; '11, 4¢. Next earnings report due late May.
(B) Dividends historically paid in late Feb., May, Aug., and Nov. ■ Div'd reinvestment plan available.
(C) Incl. intangible assets. In '15 : $7.5 mill., $0.16/sh.
(D) In millions, adjusted for splits.
(E) Excludes non-reg. rev.

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	35
Earnings Predictability	85

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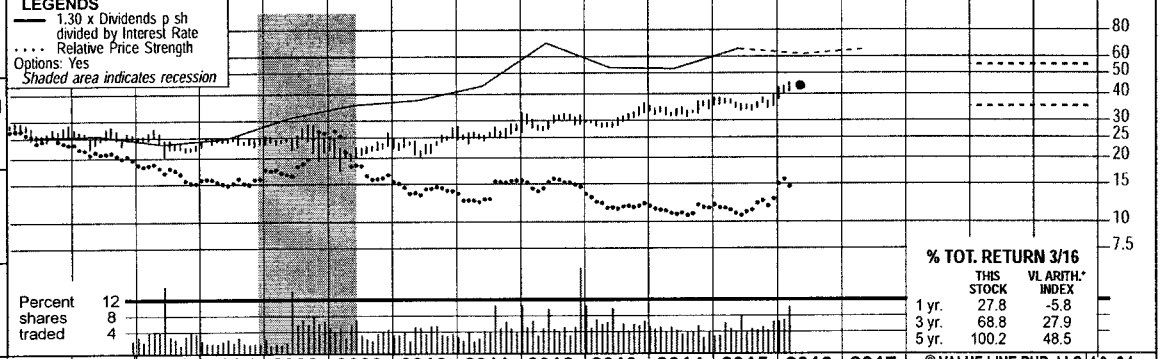
CONNECTICUT WATER NDQ-CTWS

RECENT PRICE 43.81 | P/E RATIO 21.4 (Trailing: 21.5 Median: 21.0) | RELATIVE P/E RATIO 1.17 | DIV'D YLD 2.4% | VALUE LINE

TIMELINESS 3 Lowered 3/25/16
SAFETY 3 New 1/18/13
TECHNICAL 2 Raised 3/11/16
BETA .60 (1.00 = Market)

High:	28.2	27.7	25.6	29.0	26.4	27.9	29.1	32.8	36.4	37.5	39.9	45.7
Low:	21.9	20.3	22.4	19.3	17.3	20.0	23.3	26.2	27.8	31.0	33.2	37.5

LEGENDS
— 1.30 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
Shaded area indicates recession



Target Price Range 2019 | 2020 | 2021

2019-21 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(+25%)	8%
Low	35	(-20%)	-2%

Insider Decisions

	J	J	A	S	O	N	D	J	F
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	2Q2015	3Q2015	4Q2015
to Buy	54	50	51
to Sell	37	34	44
Hld's(000)	4391	4527	4535

Percent shares traded 12 8 4

% TOT. RETURN 3/16

	THIS STOCK	VL ARITH.* INDEX
1 yr.	27.8	-5.8
3 yr.	68.8	27.9
5 yr.	100.2	48.5

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	© VALUE LINE PUB. LLC	19-21
5.70	5.93	5.77	5.91	6.04	5.81	5.68	7.05	7.24	6.93	7.65	7.93	9.47	8.29	8.45	8.58	*9.00*	*9.20*	Revenues per sh	*13.35*
1.73	1.78	1.78	1.89	1.91	1.62	1.52	1.90	1.95	1.93	2.04	2.11	2.64	2.63	2.97	3.18	*3.25*	*3.45*	"Cash Flow" per sh	*3.60*
1.09	1.13	1.12	1.15	1.16	.88	.81	1.05	1.11	1.19	1.13	1.13	1.53	1.66	1.92	2.04	*2.10*	*2.20*	Earnings per sh A	*2.35*
.79	.80	.81	.83	.84	.85	.86	.87	.88	.90	.92	.94	.96	.98	1.01	1.05	*1.09*	*1.30*	Div'd Decl'd per sh B■	*1.35*
1.43	1.86	1.98	1.49	1.58	1.96	1.96	2.24	2.44	3.28	3.06	2.61	2.79	3.02	4.11	4.29	*5.80*	*4.35*	Cap'l Spending per sh	*3.35*
8.92	9.25	10.06	10.46	10.94	11.52	11.60	11.95	12.23	12.67	13.05	13.50	20.95	17.92	18.83	20.02	*21.15*	*21.75*	Book Value per sh D	*22.90*
7.28	7.65	7.94	7.97	8.04	8.17	8.27	8.38	8.46	8.57	8.68	8.76	8.85	11.04	11.12	11.19	*11.35*	*11.50*	Common Shs Outst'g C	*12.00*
18.2	21.5	24.3	23.5	22.9	28.6	29.0	23.0	22.2	18.4	20.7	23.0	19.4	18.4	17.5	17.6	*Bold figures are*		Avg Ann'l P/E Ratio	*19.0*
1.18	1.10	1.33	1.34	1.21	1.52	1.57	1.22	1.34	1.23	1.32	1.44	1.23	1.03	.92	.89	*Value Line*		Relative P/E Ratio	*1.20*
4.0%	3.3%	3.0%	3.0%	3.1%	3.4%	3.6%	3.6%	3.6%	4.1%	3.9%	3.6%	3.2%	3.2%	3.0%	2.9%	*estimates*		Avg Ann'l Div'd Yield	*3.0%*

CAPITAL STRUCTURE as of 12/31/15
Total Debt $180.5 mill. Due in 5 Yrs $19.3 mill.
LT Debt $177.7 mill. LT Interest $7.0 mill.
(44% of Cap'l)

Leases, Uncapitalized: Annual rentals $.3 mill.
Pension Assets-12/15 $56.6 mill. Oblig. $75.8 mill.

Pfd Stock $0.8 mill. Pfd Divd NMF

Common Stock 11,192,882 shs.

MARKET CAP: $500 million (Small Cap)

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		19-21
46.9	59.0	61.3	59.4	66.4	69.4	83.8	91.5	94.0	96.0	*102*	*106*	Revenues ($mill)	*160*
6.7	8.8	9.4	10.2	9.8	9.9	13.6	18.3	21.3	22.7	*24.0*	*25.5*	Net Profit ($mill)	*28.0*
23.5%	32.4%	27.2%	19.5%	35.2%	41.3%	32.0%	28.0%	14.4%	4.2%	*7.5%*	*19.0%*	Income Tax Rate	*27.0%*
--	--	1.7%	--	--	--	1.7%	2.0%	2.4%	2.2%	*2.5%*	*2.5%*	AFUDC % to Net Profit	*2.0%*
44.4%	47.8%	46.9%	50.6%	49.5%	53.2%	49.0%	46.9%	45.7%	44.2%	*45.0%*	*46.0%*	Long-Term Debt Ratio	*47.5%*
55.1%	51.8%	52.7%	49.1%	50.2%	46.5%	50.8%	52.9%	54.1%	55.8%	*55.0%*	*54.0%*	Common Equity Ratio	*52.5%*
174.1	193.2	196.5	221.3	225.6	254.2	364.6	373.6	386.8	401.7	*435*	*465*	Total Capital ($mill)	*525*
268.1	284.3	302.3	325.2	344.2	362.4	447.9	471.9	506.9	546.3	*565*	*590*	Net Plant ($mill)	*675*
4.9%	5.5%	5.9%	5.5%	5.4%	4.9%	4.8%	5.9%	6.4%	6.6%	*6.5%*	*6.0%*	Return on Total Cap'l	*6.5%*
6.9%	8.7%	9.0%	9.3%	8.6%	8.3%	7.3%	9.2%	10.1%	10.1%	*10.0%*	*10.0%*	Return on Shr. Equity	*10.5%*
7.0%	8.7%	9.1%	9.4%	8.7%	8.3%	7.3%	9.2%	10.2%	10.1%	*10.0%*	*10.0%*	Return on Com Equity	*10.5%*
NMF	1.6%	1.9%	2.3%	1.6%	1.4%	2.8%	3.8%	4.8%	4.9%	*5.0%*	*5.0%*	Retained to Com Eq	*4.5%*
105%	82%	79%	76%	81%	83%	62%	59%	53%	52%	*52%*	*51%*	All Div'ds to Net Prof	*57%*

CURRENT POSITION ($MILL.)	2013	2014	12/31/15
Cash Assets	18.4	2.5	.7
Accounts Receivable	12.3	12.0	11.0
Other	16.2	21.7	15.3
Current Assets	46.9	36.2	27.0
Accts Payable	10.8	10.0	11.9
Debt Due	4.1	4.4	2.8
Other	7.8	9.2	22.2
Current Liab.	22.7	23.6	36.9

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '13-'15 to '19-'21
Revenues	4.0%	4.5%	*6.0%*
"Cash Flow"	4.0%	7.5%	*4.0%*
Earnings	4.0%	9.0%	*4.5%*
Dividends	2.0%	2.0%	*4.5%*
Book Value	6.5%	9.5%	*2.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2013	19.7	22.6	27.6	21.6	91.5
2014	20.3	25.4	27.6	20.7	94.0
2015	20.0	26.6	28.4	21.0	96.0
2016	*22.5*	*27.5*	*30.0*	*22.0*	*102*
2017	*23.0*	*28.0*	*32.0*	*23.0*	*106*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2013	.24	.39	.86	.17	1.66
2014	.27	.67	.76	.22	1.92
2015	.28	.77	.79	.20	2.04
2016	*.32*	*.68*	*.85*	*.25*	*2.10*
2017	*.34*	*.70*	*.88*	*.28*	*2.20*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2012	.238	.238	.2425	.2425	.962
2013	.2425	.2425	.2475	.2475	.98
2014	.2475	.2475	.2575	.2575	1.01
2015	.2575	.2575	.2675	.2675	1.05
2016	.2675				

BUSINESS: Connecticut Water Service, Inc. is a non-operating holding company, whose income is derived from earnings of its wholly-owned subsidiary companies (regulated water utilities). In 2015, 92% of net income was derived from these activities. Provides water services to 400,000 people in 77 municipalities throughout Connecticut and Maine. Acquired The Maine Water Company, January, 2012; Biddeford and Saco Water, December, 2012. Incorporated: Connecticut. Has 266 employees. Chairman/President/Chief Executive Officer: Eric W. Thornburg. Officers and directors own 2.6% of the common stock; BlackRock, Inc. 7.0%; (4/16 proxy). Address: 93 West Main Street, Clinton, CT 06413. Telephone: (860) 669-8636. Internet: www.ctwater.com.

Connecticut Water Service reported fourth-quarter results roughly in line with our expectations. Earnings of $0.20 for the period were merely a penny shy of our call. Likewise, revenues of $21.0 million missed by a fraction. Nonetheless, year-over-year top- and bottom-line comparisons were solid, giving investors reason to cheer.

Shares of Connecticut Water have risen sharply since our January review. The stock is up approximately 15% in price over the past three months, etching a new all-time high along the way.

Dividend growth is encouraging. The company has indeed stepped up it's game, increasing the payout growth rate in both 2014 and 2015. This trend ought to help the annual return catch up with the stock's steady ascent. At that point, the yield will likely hover around the 3% level over the next several years, in our view.

We are introducing our 2017 top- and bottom-line estimates. Connecticut Water should continue to reap the rewards of the repair tax credit, as well as a lower tax rate. Additionally, benefits from the pipeline in Mansfield (currently under way), a project to meet the long-term water supply for the University of Connecticut and surrounding community, ought to be noticeable next year. All told, we look for 2017 revenue and earnings of $106 million and $2.20 a share, respectively.

Capital expenditures ought to remain elevated in the near-to-intermediate term. Management has set aside $66 million for major projects this year. These endeavors include the upgrading of the wastewater facility, along with repairing its aging infrastructure. Once the latter is completed, spending should return to more-normal levels.

This equity is pegged to move in line with the broader market averages over the coming six to 12 months. On top of that, these shares do not stand out for the long haul. Much of the growth we envision over the 3- to 5-year time frame appears to already be baked into the stock price, as Connecticut Water is trading well within our recently raised Target Price Range. We recommend investors remain on the sidelines, for now.

Nicholas P. Patrikis *April 15, 2016*

(A) Diluted earnings. Next earnings report due late May.
(B) Dividends historically paid in mid-March, June, September, and December. ■ Div'd reinvestment plan available.
(C) In millions, adjusted for split.
(D) Includes intangibles. In 2015: $30.4 million/$2.72 a share.

Company's Financial Strength	B+
Stock's Price Stability	90
Price Growth Persistence	50
Earnings Predictability	85

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MIDDLESEX WATER NDQ-MSEX

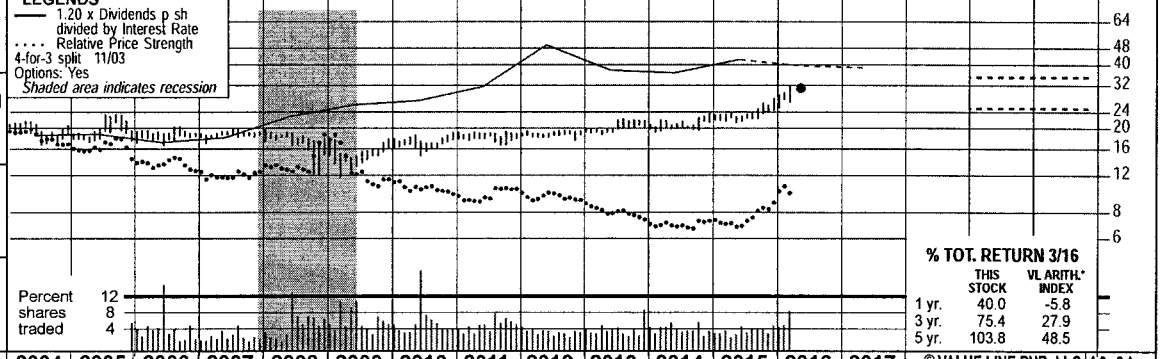
RECENT PRICE 31.05 | P/E RATIO 24.1 (Trailing: 25.5 Median: 20.0) | RELATIVE P/E RATIO 1.32 | DIV'D YLD 2.6% | VALUE LINE

TIMELINESS 2 Raised 3/18/16
SAFETY 2 New 10/21/11
TECHNICAL 2 Lowered 4/8/16
BETA .70 (1.00 = Market)

High:	23.5	20.5	20.2	19.8	17.9	19.3	19.4	19.6	22.5	23.7	28.0	32.1
Low:	17.1	16.5	16.9	12.0	11.6	14.7	16.5	17.5	18.6	19.1	21.2	25.0

Target Price Range 2019 | 2020 | 2021

LEGENDS
— 1.20 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
4-for-3 split 11/03
Options: Yes
Shaded area indicates recession



2019-21 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	35	(+15%)	6%
Low	25	(-20%)	-2%

Insider Decisions

	J	J	A	S	O	N	D	J	F
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	1	0	0

Institutional Decisions

	2Q2015	3Q2015	4Q2015
to Buy	43	47	41
to Sell	36	42	50
Hld's(000)	6487	6614	6584

% TOT. RETURN 3/16

	THIS STOCK	VL ARITH.* INDEX
1 yr.	40.0	-5.8
3 yr.	75.4	27.9
5 yr.	103.8	48.5

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	© VALUE LINE PUB. LLC	19-21
5.39	5.87	5.98	6.12	6.25	6.44	6.16	6.50	6.79	6.75	6.60	6.50	6.98	7.19	7.26	7.77	*8.00*	*8.00*	Revenues per sh	*9.40*
.99	1.18	1.20	1.15	1.28	1.33	1.33	1.49	1.53	1.40	1.55	1.46	1.56	1.72	1.84	1.97	*2.10*	*2.20*	"Cash Flow" per sh	*2.45*
.51	.66	.73	.61	.73	.71	.82	.87	.89	.72	.96	.84	.90	1.03	1.13	1.22	*1.30*	*1.35*	Earnings per sh A	*1.40*
.61	.62	.63	.65	.66	.67	.68	.69	.70	.71	.72	.73	.74	.75	.76	.78	*.81*	*.84*	Div'd Decl'd per sh B■	*.91*
1.32	1.25	1.59	1.87	2.54	2.18	2.31	1.66	2.12	1.49	1.90	1.50	1.36	1.26	1.40	1.59	*1.75*	*1.80*	Cap'l Spending per sh	*2.05*
6.98	7.11	7.39	7.60	8.02	8.26	9.52	10.05	10.03	10.33	11.13	11.27	11.48	11.82	12.24	12.74	*13.25*	*13.95*	Book Value per sh	*15.60*
10.11	10.17	10.36	10.48	11.36	11.58	13.17	13.25	13.40	13.52	15.57	15.70	15.82	15.96	16.12	16.23	*16.25*	*16.50*	Common Shs Outst'g C	*17.00*
28.7	24.6	23.5	30.0	26.4	27.4	22.7	21.6	19.8	21.0	17.8	21.7	20.8	19.7	18.5	19.1	*Bold figures are*		Avg Ann'l P/E Ratio	*21.0*
1.87	1.26	1.28	1.71	1.39	1.46	1.23	1.15	1.19	1.40	1.13	1.36	1.32	1.11	.97	.97	*Value Line*		Relative P/E Ratio	*1.30*
4.2%	3.8%	3.7%	3.5%	3.4%	3.5%	3.7%	3.7%	4.0%	4.7%	4.2%	4.0%	4.0%	3.7%	3.7%	3.3%	*estimates*		Avg Ann'l Div'd Yield	*3.0%*

CAPITAL STRUCTURE as of 12/31/15
Total Debt 144.9 mill. Due in 5 Yrs $30.8 mill.
LT Debt $136.2 mill. LT Interest $5.6 mill.
(39% of Cap'l)

Pension Assets-12/15 $52.9 mill. Oblig. $72.5 mill.
Pfd Stock $2.4 mill. Pfd Div'd: $.1 mill.

Common Stock 16,225,000 shs.

MARKET CAP: $500 million (Small Cap)

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		19-21
81.1	86.1	91.0	91.2	102.7	102.1	110.4	114.8	117.1	126.0	*130*	*132*	Revenues ($mill)	*160*
10.0	11.8	12.2	10.0	14.3	13.4	14.4	16.6	18.4	20.0	*21.0*	*22.0*	Net Profit ($mill)	*24.0*
33.4%	32.6%	33.2%	34.1%	32.1%	32.7%	33.9%	34.1%	35.0%	34.5%	*35.0%*	*35.0%*	Income Tax Rate	*34.0%*
--	--	--	--	6.8%	6.1%	3.4%	1.9%	1.7%	1.9%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*2.5%*
49.5%	49.0%	45.6%	46.6%	43.1%	42.3%	41.5%	40.4%	40.5%	39.4%	*39.0%*	*40.0%*	Long-Term Debt Ratio	*40.0%*
47.5%	49.6%	51.8%	52.1%	55.8%	56.6%	57.4%	58.7%	58.8%	59.8%	*61.0%*	*60.0%*	Common Equity Ratio	*60.0%*
264.0	268.8	259.4	267.9	310.5	312.5	316.5	321.4	335.8	345.4	*355*	*365*	Total Capital ($mill)	*440*
317.1	333.9	366.3	376.5	405.9	422.2	435.2	446.5	465.4	481.9	*495*	*515*	Net Plant ($mill)	*565*
5.1%	5.6%	5.8%	5.0%	5.7%	5.2%	5.4%	5.9%	6.3%	6.6%	*6.5%*	*7.0%*	Return on Total Cap'l	*6.0%*
7.5%	8.6%	8.6%	7.0%	8.1%	7.5%	7.8%	8.7%	9.2%	9.6%	*10.0%*	*10.0%*	Return on Shr. Equity	*9.0%*
7.8%	8.7%	8.9%	7.0%	8.2%	7.5%	7.8%	8.7%	9.3%	9.6%	*10.0%*	*10.0%*	Return on Com Equity	*9.0%*
1.3%	1.8%	2.0%	.1%	2.1%	1.0%	1.4%	2.4%	3.1%	3.5%	*3.5%*	*3.5%*	Retained to Com Eq	*3.0%*
84%	79%	78%	98%	75%	87%	83%	73%	67%	63%	*62%*	*61%*	All Div'ds to Net Prof	*65%*

CURRENT POSITION ($MILL.)	2013	2014	12/31/15
Cash Assets	4.8	2.7	3.5
Other	21.0	20.2	20.9
Current Assets	25.8	22.9	24.4
Accts Payable	6.3	6.4	6.5
Debt Due	33.8	24.9	8.7
Other	12.6	12.6	13.1
Current Liab.	52.7	43.9	28.3

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '13-'15 to '19-'21
Revenues	1.5%	2.0%	*4.0%*
"Cash Flow"	4.0%	4.5%	*5.0%*
Earnings	5.0%	5.5%	*3.5%*
Dividends	1.5%	1.5%	*3.0%*
Book Value	4.5%	3.0%	*4.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2013	27.0	29.1	31.3	27.4	114.8
2014	27.1	29.2	32.7	28.1	117.1
2015	28.8	31.7	34.7	30.8	126.0
2016	*29.5*	*32.5*	*35.5*	*32.5*	*130*
2017	*30.0*	*33.0*	*36.0*	*33.0*	*132*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2013	.20	.28	.36	.19	1.03
2014	.20	.29	.42	.22	1.13
2015	.22	.31	.41	.28	1.22
2016	*.23*	*.33*	*.45*	*.29*	*1.30*
2017	*.25*	*.34*	*.46*	*.30*	*1.35*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2012	.185	.185	.185	.1875	.74
2013	.1875	.1875	.1875	.19	.75
2014	.19	.19	.19	.1925	.76
2015	.1925	.1925	.1925	.19875	.78
2016	.19875				

BUSINESS: Middlesex Water Company engages in the ownership and operation of regulated water utility systems in New Jersey, Delaware, and Pennsylvania. It also operates water and wastewater systems under contract on behalf of municipal and private clients in NJ and DE. Its Middlesex System provides water services to 60,000 retail customers, primarily in Middlesex County, New Jersey. In 2015, the Middlesex System accounted for 59% of operating revenues. At 12/31/15, the company had 293 employees. Incorporated: NJ. President, CEO, and Chairman: Dennis W. Doll. Officers & directors own 3.5% of the common stock; BlackRock Institutional Trust Co., 6.6% (4/15 proxy). Add.: 1500 Ronson Road, Iselin, NJ 08830. Tel.: 732-634-1500. Internet: www.middlesexwater.com.

Middlesex Water Company shares rose more than 15% in price over the past three months. The stock has been trending higher since the middle of 2015, piggybacking off a string of better-than-expected financial results. Indeed, MSEX traded at an all-time high during the period, at $32 per share.

Financials continue to impress. The company ended the year on the right foot, registering high single-digit top- and bottom-line growth, on an annual basis. Full-year revenues increased to $126 million (approximately 8% year over year), while share net ticked up $0.09 (nearly 9%) from the prior-year figure, to $1.22. Rate increases and greater weather-driven customer demand from the company's New Jersey systems were primarily responsible for the strong performance.

We are optimistic about 2016 and 2017 earnings prospects, despite steadily increasing operations and maintenance costs. The recently approved rate hike from New Jersey regulators will be in effect through this year, boosting revenues. Though expenses are a concern, namely employee benefits, retirement, and healthcare, we think MSEX is doing a solid job navigating the waters. All things considered, we are lifting our 2016 earnings estimate by a dime, to $1.30 a share. Meanwhile, we are introducing our 2017 share-net forecast of $1.35.

Dividend growth ought to persist over the pull to late decade. The company has a pristine track record of payout hikes, and as of last year, ramped up the rate at which it will increase. Thus, we have tweaked our model to incorporate dividend growth of 2¢ per year, rather than the traditional 1¢ rise. At present, however, the yield is less appealing than investors may be used to, due largely to the recent surge in price. Over the long haul, we think a 3.0% annual return is likely in the cards.

Middlesex shares are ranked to outperform the broader market averages over the coming six to 12 months. Conversely, investors with an eye to late decade may want to stay on the sidelines, for now, as much of the gains we envision out to 2019-2021 appear to already be baked into the stock price, rendering capital appreciation potential subpar.

Nicholas P. Patrikis *April 15, 2016*

(A) Diluted earnings. May not sum due to rounding. Next earnings report due late May.
(B) Dividends historically paid in mid-Feb., May, Aug., and November.■ Div'd reinvestment plan available.
(C) In millions, adjusted for splits.

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	40
Earnings Predictability	80

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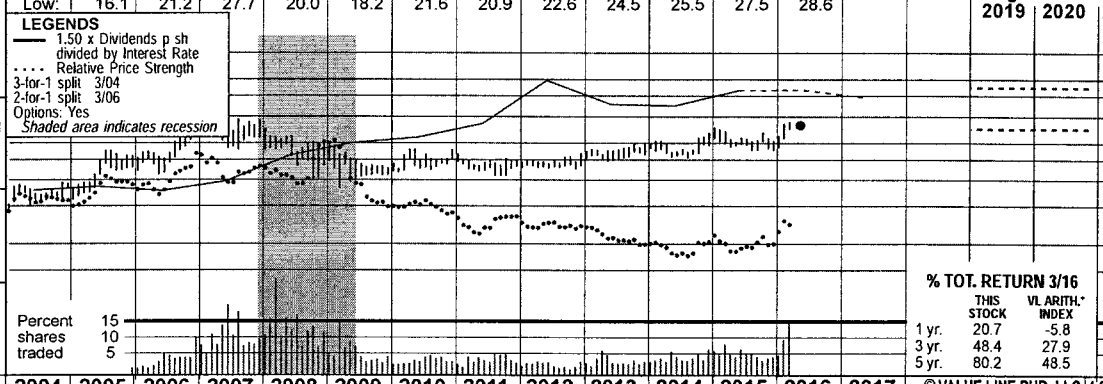
SJW CORP. NYSE-SJW

RECENT PRICE **36.41** | P/E RATIO **18.2** (Trailing: 19.8 / Median: 24.0) | RELATIVE P/E RATIO **0.99** | DIV'D YLD **2.2%** | VALUE LINE

TIMELINESS 2 Raised 3/11/16
SAFETY 3 New 4/22/11
TECHNICAL 1 Raised 4/1/16
BETA .75 (1.00 = Market)

High:	27.8	45.3	43.0	35.1	30.4	28.2	26.8	26.9	30.1	33.7	35.7	37.9
Low:	16.1	21.2	27.7	20.0	18.2	21.6	20.9	22.6	24.5	25.5	27.5	28.6

Target Price Range 2019 | 2020 | 2021



2019-21 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(+50%)	13%
Low	35	(-5%)	2%

Insider Decisions

	J	J	A	S	O	N	D	J	F
to Buy	1	0	1	0	0	0	3	0	0
Options	0	0	0	0	0	0	0	9	0
to Sell	1	0	0	0	0	0	0	0	0

Institutional Decisions

	2Q2015	3Q2015	4Q2015
to Buy	63	61	43
to Sell	49	44	59
Hld's(000)	10749	9038	8694

% TOT. RETURN 3/16

	THIS STOCK	VL ARITH.* INDEX
1 yr.	20.7	-5.8
3 yr.	48.4	27.9
5 yr.	80.2	48.5

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	© VALUE LINE PUB. LLC	19-21
6.74	7.45	7.97	8.20	9.14	9.86	10.35	11.25	12.12	11.68	11.62	12.85	14.01	13.73	15.76	14.97	*15.10*	*15.25*	Revenues per sh	*18.50*
1.23	1.49	1.55	1.75	1.89	2.21	2.38	2.30	2.44	2.21	2.38	2.80	2.97	2.90	4.42	3.86	*3.85*	*3.95*	"Cash Flow" per sh	*3.95*
.58	.77	.78	.91	.87	1.12	1.19	1.04	1.08	.81	.84	1.11	1.18	1.12	2.54	1.85	*1.80*	*1.95*	Earnings per sh A	*2.00*
.41	.43	.46	.49	.51	.53	.57	.61	.65	.66	.68	.69	.71	.73	.75	.78	*.82*	*.85*	Div'd Decl'd per sh B■	*1.05*
1.89	2.63	2.06	3.41	2.31	2.83	3.87	6.62	3.79	3.17	5.65	3.75	5.67	4.68	5.02	5.24	*5.35*	*5.50*	Cap'l Spending per sh	*5.00*
7.90	8.17	8.40	9.11	10.11	10.72	12.48	12.90	13.99	13.66	13.75	14.20	14.71	15.92	17.75	18.83	*19.00*	*19.75*	Book Value per sh	*22.40*
18.27	18.27	18.27	18.27	18.27	18.27	18.28	18.36	18.18	18.50	18.55	18.59	18.67	20.17	20.29	20.38	*20.50*	*21.00*	Common Shs Outst'g C	*23.00*
33.1	18.5	17.3	15.4	19.6	19.7	23.5	33.4	26.2	28.7	29.1	21.2	20.4	24.3	11.2	16.6	*Bold figures are*		Avg Ann'l P/E Ratio	*22.0*
2.15	.95	.94	.88	1.04	1.05	1.27	1.77	1.58	1.91	1.85	1.33	1.30	1.37	.59	.84	*Value Line*		Relative P/E Ratio	*1.40*
2.1%	3.0%	3.4%	3.5%	3.0%	2.4%	2.0%	1.7%	2.3%	2.8%	2.8%	2.9%	3.0%	2.7%	2.6%	2.5%	*estimates*		Avg Ann'l Div'd Yield	*2.3%*

CAPITAL STRUCTURE as of 12/31/15
Total Debt $418.9 mill. **Due in 5 Yrs** $21.2 mill.
LT Debt $380.8 mill. **LT Interest** $21.0 mill.
(50% of Cap'l)

Leases, Uncapitalized: Annual rentals $6.6 mill.

Pension Assets-12/15 $105.0 mill.
Oblig. $164.3 mill.

Pfd Stock None.

Common Stock 20,381,949 shs.

MARKET CAP: $750 million (Small Cap)

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		19-21
189.2	206.6	220.3	216.1	215.6	239.0	261.5	276.9	319.7	305.1	*310*	*320*	Revenues ($mill)	*425*
22.2	19.3	20.2	15.2	15.8	20.9	22.3	23.5	51.8	37.9	*37.5*	*40.0*	Net Profit ($mill)	*45.0*
40.8%	39.4%	39.5%	40.4%	38.8%	41.1%	41.1%	38.7%	32.5%	38.1%	*39.0%*	*39.5%*	Income Tax Rate	*38.0%*
2.1%	2.7%	2.3%	2.0%	--	--	--	--	2.0%	1.0%	*1.5%*	*1.5%*	AFUDC % to Net Profit	*1.5%*
41.8%	47.7%	46.0%	49.4%	53.7%	56.6%	55.0%	51.1%	51.6%	49.8%	*50.5%*	*51.5%*	Long-Term Debt Ratio	*51.5%*
58.2%	52.3%	54.0%	50.6%	46.3%	43.4%	45.0%	48.9%	48.4%	50.2%	*49.5%*	*48.5%*	Common Equity Ratio	*48.5%*
391.8	453.2	470.9	499.6	550.7	607.9	610.2	656.2	744.5	764.6	*790*	*855*	Total Capital ($mill)	*1065*
541.7	645.5	684.2	718.5	785.5	756.2	831.6	898.7	963.0	1036.8	*1100*	*1200*	Net Plant ($mill)	*1325*
7.0%	5.7%	5.8%	4.4%	4.3%	4.9%	5.0%	5.0%	8.3%	6.3%	*6.0%*	*6.0%*	Return on Total Cap'l	*5.5%*
9.7%	8.2%	8.0%	6.0%	6.2%	7.9%	8.1%	7.3%	14.4%	9.9%	*9.5%*	*9.5%*	Return on Shr. Equity	*9.0%*
9.7%	8.2%	8.0%	6.0%	6.2%	7.9%	8.1%	7.3%	14.4%	9.9%	*9.5%*	*9.5%*	Return on Com Equity	*9.0%*
5.2%	3.5%	3.3%	1.2%	1.2%	3.1%	3.3%	2.8%	10.2%	5.7%	*5.0%*	*5.5%*	Retained to Com Eq	*4.0%*
46%	57%	59%	80%	80%	61%	59%	62%	29%	42%	*45%*	*45%*	All Div'ds to Net Prof	*60%*

CURRENT POSITION ($MILL.)	2013	2014	12/31/15
Cash Assets	2.3	2.4	5.2
Accts Receivable	14.5	15.0	16.4
Other	22.9	50.7	51.8
Current Assets	39.7	68.1	73.4
Accts Payable	12.6	7.0	16.2
Debt Due	23.0	13.8	38.1
Other	23.6	23.9	25.3
Current Liab.	59.2	44.7	79.6

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '13-'15 to '19-'21
Revenues	5.0%	4.5%	*3.5%*
"Cash Flow"	6.5%	10.0%	*2.5%*
Earnings	6.5%	15.0%	*1.5%*
Dividends	4.0%	2.5%	*6.0%*
Book Value	6.0%	5.0%	*6.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2013	50.1	74.2	85.2	67.4	276.9
2014	54.6	70.4	125.4	69.3	319.7
2015	62.1	72.4	83.0	87.6	305.1
2016	*65.0*	*75.0*	*90.0*	*80.0*	*310*
2017	*67.0*	*78.0*	*92.0*	*83.0*	*320*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2013	.07	.37	.44	.24	1.12
2014	.04	.34	1.88	.28	2.54
2015	.23	.36	.46	.80	1.85
2016	*.20*	*.40*	*.60*	*.60*	*1.80*
2017	*.25*	*.45*	*.65*	*.60*	*1.95*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2012	.1775	.1775	.1775	.1775	.71
2013	.1825	.1825	.1825	.1825	.73
2014	.1875	.1875	.1875	.1875	.75
2015	.1950	.1950	.1950	.1950	.78
2016	.2025				

BUSINESS: SJW Corporation engages in the production, purchase, storage, purification, distribution, and retail sale of water. It provides water service to approximately 229,000 connections with a total population of roughly one million people in the San Jose area and 12,000 connections that reaches about 36,000 residents in the region between San Antonio and Austin, Texas. The company also offers nonregulated water-related services and owns and operates commercial real estate investments. Has about 399 employees. Officers and directors (including Nancy O. Moss) own 28.3% of outstanding shares. Chairman: Charles J. Toeniskoetter. Incorporated: California. Address: 110 West Taylor Street, San Jose, CA 95110. Telephone: (408) 279-7800. Internet: www.sjwater.com.

SJW Corp. ended the year on a strong note. The water utility delivered better-than-expected top- and bottom-line results for the fourth quarter. Revenues of $87.6 million bested our target by roughly $15 million. Similarly, net income of $0.80 a share for the period came in well above the Street's and our estimate. Indeed, the outperformance can be partly attributed to the accumulation of lost revenue at the end of 2015, as a result of Mandatory Conservation Revenue Adjustment Memorandum. This form of revenue recognition helped bolster financials this year, and ought to continue to do so going forward. What's more, investors have taken notice of the favorable operating environment, sending the stock price more than 20% higher over the past three months, establishing a new 52-week high.

The stage is set for a profitable 2016 and beyond. Despite embarking on the fourth consecutive year of drought conditions, which have undoubtedly raised costs overall, the company has actually experienced lower water production expenses of late. Meanwhile, selling and administrative costs, as well as pension expenses, should begin to cool. In addition, the General Rate Case proceeding may be another positive for the bottom line, even with substantial capital investments on tap. On balance, we are raising our full-year 2016 earnings estimate by $0.25, to $1.80 a share. Too, we are introducing our 2017 projection at $1.95 per share.

SJW Corp. pays a decent dividend. At the recent quotation, the payout yields a somewhat unimpressive 2.2%. That said, the distribution is poised to increase year-after-year, like the company has done throughout its operating history. Moreover, we anticipate a similarly healthy yield over the 3- to 5-year stretch.

Shares of SJW Corp. have been raised two notches for Timeliness, to 2, and are now favorably ranked for relative year ahead price performance. We think there is some room to run in the near-term, as investors may look to piggyback off of strong earnings results. Conversely, this issue offers little upside potential for the pull to 2019-2021. SJW stock is already trading above the lower-end of our Target Price Range.

Nicholas P. Patrikis *April 15, 2016*

(A) Diluted earnings. Excludes nonrecurring losses : '03, $1.97; '04, $3.78; '05, $1.09; '06, $16.36; '08, $1.22; '10, $0.46. GAAP accounting as of 2013. Next earnings report due late May. Quarterly earnings may not add due to rounding.
(B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available.
(C) In millions, adjusted for stock splits.

Company's Financial Strength	B+
Stock's Price Stability	85
Price Growth Persistence	20
Earnings Predictability	50

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YORK WATER NDQ-YORW

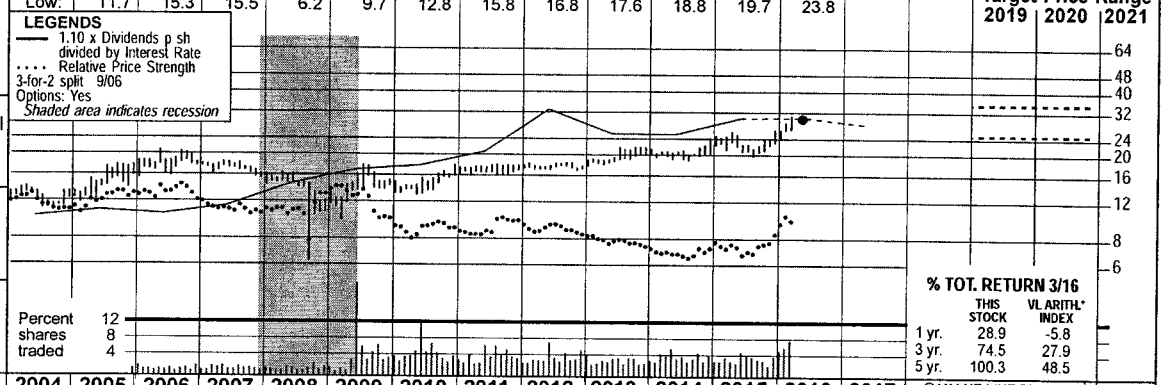
RECENT PRICE 29.87 | P/E RATIO 29.6 (Trailing: 30.8 Median: 24.0) | RELATIVE P/E RATIO 1.62 | DIV'D YLD 2.1% | VALUE LINE

TIMELINESS 2 Lowered 4/1/16
SAFETY 3 Lowered 7/17/15
TECHNICAL 2 Raised 3/11/16
BETA .70 (1.00 = Market)

High:	17.9	21.0	18.5	16.5	18.0	18.0	18.1	18.5	22.0	24.3	26.7	31.0
Low:	11.7	15.3	15.5	6.2	9.7	12.8	15.8	16.8	17.6	18.8	19.7	23.8

Target Price Range 2019 | 2020 | 2021

LEGENDS
— 1.10 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
3-for-2 split 9/06
Options: Yes
Shaded area indicates recession



2019-21 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	35	(+15%)	6%
Low	25	(-15%)	-2%

Insider Decisions

	J	J	A	S	O	N	D	J	F
to Buy	0	4	1	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	2Q2015	3Q2015	4Q2015
to Buy	34	30	36
to Sell	31	27	24
Hld's(000)	3769	3840	3820

Percent shares traded 12 8 4

% TOT. RETURN 3/16

	THIS STOCK	VL ARITH.* INDEX
1 yr.	28.9	-5.8
3 yr.	74.5	27.9
5 yr.	100.3	48.5

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	© VALUE LINE PUB. LLC	19-21
--	2.05	2.05	2.17	2.18	2.58	2.56	2.79	2.89	2.95	3.07	3.18	3.21	3.27	3.58	3.68	*4.00*	*4.40*	Revenues per sh	*5.40*
--	.59	.57	.65	.65	.79	.77	.86	.88	.95	1.07	1.09	1.12	1.19	1.36	1.47	*1.55*	*1.70*	"Cash Flow" per sh	*1.90*
--	.43	.40	.47	.49	.56	.58	.57	.57	.64	.71	.71	.72	.75	.89	.97	*1.00*	*1.08*	Earnings per sh A	*1.25*
--	.34	.35	.37	.39	.42	.45	.48	.49	.51	.52	.53	.54	.55	.57	.60	*.63*	*.66*	Div'd Decl'd per sh B	*.85*
--	.75	.66	1.07	2.50	1.69	1.85	1.69	2.17	1.18	.83	.74	.94	.76	1.10	1.08	*1.60*	*1.10*	Cap'l Spending per sh	*.85*
--	3.79	3.90	4.06	4.65	4.85	5.84	5.97	6.14	6.92	7.19	7.45	7.73	7.98	8.15	8.52	*8.80*	*9.35*	Book Value per sh	*10.15*
--	9.46	9.55	9.63	10.33	10.40	11.20	11.27	11.37	12.56	12.69	12.79	12.92	12.98	12.83	12.81	*12.50*	*12.00*	Common Shs Outst'g C	*12.00*
--	17.8	26.9	24.5	25.7	26.3	31.2	30.3	24.6	21.9	20.7	23.9	24.4	26.3	23.1	23.5	*Bold figures are*		Avg Ann'l P/E Ratio	*22.5*
--	.91	1.47	1.40	1.36	1.40	1.68	1.61	1.48	1.46	1.32	1.50	1.55	1.48	1.22	1.19	*Value Line*		Relative P/E Ratio	*1.40*
--	4.4%	3.3%	3.2%	3.1%	2.9%	2.5%	2.8%	3.5%	3.6%	3.5%	3.1%	3.1%	2.8%	2.8%	2.6%	*estimates*		Avg Ann'l Div'd Yield	*3.4%*
						28.7	31.4	32.8	37.0	39.0	40.6	41.4	42.4	45.9	47.1	*50.0*	*53.0*	Revenues ($mill)	*65.0*
						6.1	6.4	6.4	7.5	8.9	9.1	9.3	9.7	11.5	12.6	*12.5*	*13.0*	Net Profit ($mill)	*15.0*
						34.4%	36.5%	36.1%	37.9%	38.5%	35.3%	37.6%	37.6%	29.8%	27.2%	*28.5%*	*28.5%*	Income Tax Rate	*32.5%*
						7.2%	3.6%	10.1%	--	1.2%	1.1%	1.1%	.8%	1.8%	1.6%	*1.0%*	*1.0%*	AFUDC % to Net Profit	*1.0%*
						48.3%	46.5%	54.5%	45.7%	48.3%	47.1%	46.0%	45.1%	44.8%	44.5%	*45.0%*	*46.5%*	Long-Term Debt Ratio	*47.0%*
						51.7%	53.5%	45.5%	54.3%	51.7%	52.9%	54.0%	54.9%	55.2%	55.5%	*55.0%*	*53.5%*	Common Equity Ratio	*53.0%*
						126.5	125.7	153.4	160.1	176.4	180.2	184.8	188.4	189.4	196.4	*200*	*210*	Total Capital ($mill)	*230*
						174.4	191.6	211.4	222.0	228.4	233.0	240.3	244.2	253.2	261.4	*270*	*275*	Net Plant ($mill)	*290*
						6.2%	6.7%	5.7%	6.2%	6.5%	6.4%	6.4%	6.5%	7.4%	7.7%	*7.5%*	*7.5%*	Return on Total Cap'l	*7.5%*
						9.3%	9.5%	9.2%	8.6%	9.8%	9.5%	9.3%	9.3%	11.0%	11.5%	*11.5%*	*11.5%*	Return on Shr. Equity	*12.5%*
						9.3%	9.5%	9.2%	8.6%	9.8%	9.5%	9.3%	9.3%	11.0%	11.5%	*11.5%*	*11.5%*	Return on Com Equity	*12.5%*
						2.2%	1.7%	1.4%	1.9%	2.7%	2.5%	2.4%	2.4%	3.9%	4.5%	*4.0%*	*4.5%*	Retained to Com Eq	*4.0%*
						77%	82%	85%	78%	72%	73%	74%	74%	64%	61%	*64%*	*61%*	All Div'ds to Net Prof	*68%*

CAPITAL STRUCTURE as of 12/31/15
Total Debt $87.3 mill. **Due in 5 Yrs** $30.5 mill.
LT Debt $87.3 mill. **LT Interest** $5.1 mill.
(45% of Cap'l)
Pension Assets 12/15 $31.8 mill.
Oblig. $39.5 mill.

Pfd Stock None

Common Stock 12,812,377 shs.

MARKET CAP: $375 million (Small Cap)

CURRENT POSITION ($MILL.)	2013	2014	12/31/15
Cash Assets	7.6	1.5	2.9
Accounts Receivable	3.8	4.0	3.5
Inventory (Avg. Cost)	.7	.8	.8
Other	3.1	4.9	4.6
Current Assets	15.2	11.2	11.8
Accts Payable	1.8	1.6	1.8
Debt Due	--	--	--
Other	6.0	4.3	4.4
Current Liab.	7.8	5.9	6.2

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '13-'15 to '19-'21
Revenues	4.5%	3.0%	*7.5%*
"Cash Flow"	7.0%	6.5%	*6.0%*
Earnings	5.5%	6.0%	*6.0%*
Dividends	4.0%	2.5%	*6.5%*
Book Value	6.5%	4.5%	*3.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2013	10.1	10.7	10.9	10.7	42.4
2014	10.6	11.8	12.0	11.5	45.9
2015	11.2	11.9	12.4	11.6	47.1
2016	*11.5*	*12.5*	*13.0*	*13.0*	*50.0*
2017	*12.0*	*13.0*	*13.5*	*14.5*	*53.0*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2013	.17	.18	.19	.21	.75
2014	.16	.22	.23	.28	.89
2015	.20	.22	.28	.27	.97
2016	*.20*	*.26*	*.28*	*.26*	*1.00*
2017	*.22*	*.27*	*.30*	*.29*	*1.08*

Cal-endar	QUARTERLY DIVIDENDS PAID B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2012	.134	.134	.134	.134	.535
2013	.138	.138	.138	.138	.552
2014	.1431	.1431	.1431	.1431	.572
2015	.1495	.1495	.1495	.1555	.604
2016	.1555				

BUSINESS: The York Water Company is the oldest investor-owned regulated water utility in the United States. It has operated continuously since 1816. As of December 31, 2015, the company's average daily availability was 35.4 million gallons and its service territory had an estimated population of 194,000. Has more than 66,000 customers. Residential customers accounted for 63% of 2015 revenues; commercial and industrial (29%); other (8%). It also provides sewer billing services. Incorporated: PA. York had 108 full-time employees at 12/31/15. President/CEO: Jeffrey R. Hines. Officers/directors own 1.1% of the common stock (4/16 proxy). Address: 130 East Market Street, York, Pennsylvania 17401. Telephone: (717) 845-3601. Internet: www.yorkwater.com.

York Water shares continue to march higher. The stock rose more than 20% in value since our January full-page review, driven by a better-than-expected earnings report. Moreover, this equity has surged approximately 50% from the midway point of last year.

Several factors are contributing to York's well-performing financials. For one, IRS Tangible Property Rules, which allow for more favorable quarterly reporting rather than year end, ought to remain a tailwind to profitability. This has resulted in a lower effective tax rate and should persist over the intermediate term. Second, lower operating expenses may play a marginal role in share-net growth. Lastly, revenues are apt to get a boost from the purchase of 1,700 wastewater connections, expected to close in the back end of 2016.

All things considered, bottom-line expansion is likely in the cards for this year and next. We are leaving unaltered our 2016 earnings called, at $1.00 per share. In 2017, we look for more-pronounced high single-digit growth, to $1.08 a share, underpinned by a slightly reduced share count, as well as the abovementioned drivers.

Increased capital investments, coupled with acquisitions, augur well for growth over the long haul. Indeed, an aging infrastructure in need of upgrading should attract a large allocation of funds in the near term. Additional resources will likely be used for acquisitions. Management has indicated capital spending of roughly $20 million and $13 million in 2016 and 2017, respectively. We expect this figure to cool a bit looking out to the 2019-2021 time frame, considering major pipeline replacements should no longer be an issue.

York Water is ranked (Timeliness: 2) to outperform the broader market averages over the coming six to 12 months. Momentum accounts may still have some success here, given quarterly earnings comparisons should continue to impress. However, the prolonged run-up in price does give us pause. To that end, capital appreciation potential out to late decade is limited, even with our increased Target Price Range.

Nicholas P. Patrikis *April 15, 2016*

(A) Diluted earnings. Next earnings report due late May.
(B) Dividends historically paid in mid-January, April, July, and October.
(C) In millions, adjusted for splits.

Company's Financial Strength	B+
Stock's Price Stability	90
Price Growth Persistence	50
Earnings Predictability	95

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American States Water Company (AWR) - NYSE ★ Watchlist

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Analyst Estimates

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Earnings Est	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	0.47	0.58	1.67	1.74
No. of Analysts	3.00	3.00	5.00	5.00
Low Estimate	0.41	0.51	1.56	1.57
High Estimate	0.52	0.69	1.72	1.80
Year Ago EPS	0.41	0.56	1.60	1.67

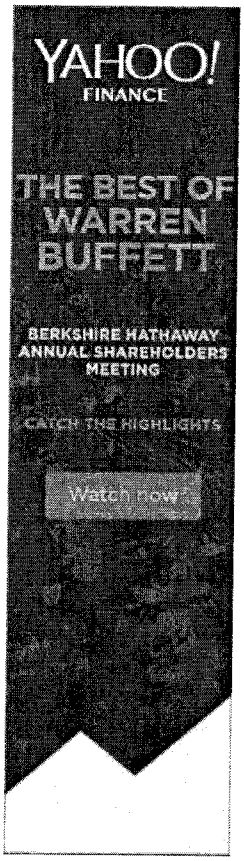
Revenue Est	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	118.63M	137.77M	480.18M	493.49M
No. of Analysts	2	2	5	5
Low Estimate	117.00M	136.00M	466.00M	472.00M
High Estimate	120.26M	139.53M	515.90M	539.90M
Year Ago Sales	114.62M	132.98M	458.64M	480.18M
Sales Growth (year/est)	3.50%	3.60%	4.70%	2.80%

Earnings History	Jun 15	Sep 15	Dec 15	Mar 16
EPS Est	0.41	0.56	0.30	0.32
EPS Actual	0.41	0.56	0.31	0.28
Difference	0.00	0.00	0.01	-0.04
Surprise %	0.00%	0.00%	3.30%	-12.50%

EPS Trends	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Current Estimate	0.47	0.58	1.67	1.74
7 Days Ago	0.47	0.58	1.67	1.74
30 Days Ago	0.47	0.58	1.68	1.75
60 Days Ago	0.47	0.58	1.68	1.75
90 Days Ago	0.52	0.60	1.69	1.75

EPS Revisions	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Up Last 7 Days	0	0	0	0
Up Last 30 Days	0	0	0	0
Down Last 30 Days	0	0	0	0
Down Last 90 Days	N/A	N/A	N/A	N/A

Growth Est	AWR	Industry	Sector	S&P 500
Current Qtr.	14.60%	27.50%	59.40%	8.20%
Next Qtr.	3.60%	15.70%	-47.10%	14.00%
This Year	4.40%	-4.60%	13.10%	0.50%
Next Year	4.20%	1.00%	15.30%	12.80%
Past 5 Years (per annum)	11.82%	N/A	N/A	N/A
Next 5 Years (per annum)	3.85%	7.40%	5.58%	6.88%



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Analyst Estimates

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Earnings Est	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	0.73	1.02	2.82	3.04
No. of Analysts	11.00	11.00	16.00	14.00
Low Estimate	0.65	0.92	2.75	2.95
High Estimate	0.78	1.08	2.85	3.10
Year Ago EPS	0.68	0.96	2.64	2.82

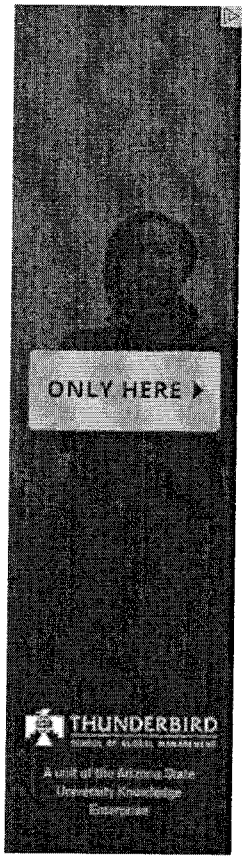
Revenue Est	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	830.88M	950.88M	3.34B	3.50B
No. of Analysts	9	9	13	11
Low Estimate	777.00M	938.29M	3.29B	3.45B
High Estimate	859.79M	966.00M	3.43B	3.62B
Year Ago Sales	782.12M	896.21M	3.16B	3.34B
Sales Growth (year/est)	6.20%	6.10%	5.90%	4.80%

Earnings History	Jun 15	Sep 15	Dec 15	Mar 16
EPS Est	0.67	0.94	0.55	0.46
EPS Actual	0.68	0.96	0.55	0.46
Difference	0.01	0.02	0.00	0.00
Surprise %	1.50%	2.10%	0.00%	0.00%

EPS Trends	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Current Estimate	0.73	1.02	2.82	3.04
7 Days Ago	0.73	1.02	2.82	3.04
30 Days Ago	0.74	1.02	2.82	3.04
60 Days Ago	0.74	1.02	2.82	3.04
90 Days Ago	0.75	1.02	2.82	3.02

EPS Revisions	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Up Last 7 Days	0	0	1	1
Up Last 30 Days	0	0	1	2
Down Last 30 Days	1	1	0	0
Down Last 90 Days	N/A	N/A	N/A	N/A

Growth Est	AWK	Industry	Sector	S&P 500
Current Qtr.	7.40%	27.50%	59.40%	8.20%
Next Qtr.	6.30%	15.70%	-47.10%	14.00%
This Year	6.80%	-4.60%	13.10%	0.50%
Next Year	7.80%	1.00%	15.30%	12.80%
Past 5 Years (per annum)	14.81%	N/A	N/A	N/A
Next 5 Years (per annum)	7.60%	7.40%	5.58%	6.88%



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Aqua America Inc. (WTR) - NYSE ★ Watchlist

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32.49 0.08(0.25%) 3:11PM EDT - Nasdaq Real Time Price

Analyst Estimates

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Earnings Est	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	0.34	0.42	1.34	1.41
No. of Analysts	7.00	7.00	11.00	11.00
Low Estimate	0.32	0.39	1.31	1.36
High Estimate	0.36	0.43	1.35	1.47
Year Ago EPS	0.32	0.38	1.26	1.34

Revenue Est	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	212.85M	231.25M	846.65M	888.86M
No. of Analysts	5	5	8	8
Low Estimate	208.00M	224.40M	818.90M	851.80M
High Estimate	218.04M	240.11M	865.25M	950.65M
Year Ago Sales	205.76M	221.05M	814.20M	846.65M
Sales Growth (year/est)	3.40%	4.60%	4.00%	5.00%

Earnings History	Jun 15	Sep 15	Dec 15	Mar 16
EPS Est	0.32	0.38	0.29	0.28
EPS Actual	0.32	0.38	0.28	0.29
Difference	0.00	0.00	-0.01	0.01
Surprise %	0.00%	0.00%	-3.40%	3.60%

EPS Trends	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Current Estimate	0.34	0.42	1.34	1.41
7 Days Ago	0.34	0.41	1.34	1.41
30 Days Ago	0.34	0.41	1.34	1.42
60 Days Ago	0.34	0.41	1.34	1.42
90 Days Ago	0.34	0.42	1.34	1.42

EPS Revisions	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Up Last 7 Days	0	1	1	1
Up Last 30 Days	0	1	1	1
Down Last 30 Days	1	0	1	1
Down Last 90 Days	N/A	N/A	N/A	N/A

Growth Est	WTR	Industry	Sector	S&P 500
Current Qtr.	6.30%	27.50%	59.40%	8.20%
Next Qtr.	10.50%	15.70%	-47.10%	14.00%
This Year	6.30%	-4.60%	13.10%	0.50%
Next Year	5.20%	1.00%	15.30%	12.80%
Past 5 Years (per annum)	13.10%	N/A	N/A	N/A
Next 5 Years (per annum)	6.05%	7.40%	5.58%	6.88%

Texas Instruments BA II Plus Financial Calculator (1467) $27.52

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ARTNA

Artesian Resources Corp. (ARTNA) - NasdaqGS ★ Watchlist

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28.65 0.01(0.03%) 2:59PM EDT

Analyst Estimates

Get Analyst Estimates for: GO

Earnings Est	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	0.37	0.41	1.33	1.45
No. of Analysts	1.00	1.00	1.00	1.00
Low Estimate	0.37	0.41	1.33	1.45
High Estimate	0.37	0.41	1.33	1.45
Year Ago EPS	0.36	0.41	1.26	1.33

Revenue Est	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	20.00M	21.20M	78.70M	81.90M
No. of Analysts	1	1	1	1
Low Estimate	20.00M	21.20M	78.70M	81.90M
High Estimate	20.00M	21.20M	78.70M	81.90M
Year Ago Sales	19.54M	20.78M	77.02M	78.70M
Sales Growth (year/est)	2.40%	2.00%	2.20%	4.10%

Earnings History	Jun 15	Sep 15	Dec 15	Mar 16
EPS Est	0.29	0.35	0.24	0.27
EPS Actual	0.36	0.41	0.21	0.31
Difference	0.07	0.06	-0.03	0.04
Surprise %	24.10%	17.10%	-12.50%	14.80%

EPS Trends	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Current Estimate	0.37	0.41	1.33	1.45
7 Days Ago	0.34	0.41	1.28	1.44
30 Days Ago	0.34	0.41	1.32	1.44
60 Days Ago	N/A	N/A	1.29	1.43
90 Days Ago	N/A	N/A	1.29	1.43

EPS Revisions	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Up Last 7 Days	1	0	1	1
Up Last 30 Days	1	0	1	1
Down Last 30 Days	0	0	0	0
Down Last 90 Days	N/A	N/A	N/A	N/A

Growth Est	ARTNA	Industry	Sector	S&P 500
Current Qtr.	2.80%	27.50%	59.40%	8.20%
Next Qtr.	0.00%	15.70%	-47.10%	14.00%
This Year	5.60%	-4.60%	13.10%	0.50%
Next Year	9.00%	1.00%	15.30%	12.80%
Past 5 Years (per annum)	8.88%	N/A	N/A	N/A
Next 5 Years (per annum)	4.00%	7.40%	5.58%	6.88%

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California Water Service Group (CWT) - NYSE ★ Watchlist Like 4

28.66 0.43(1.52%) 3:14PM EDT - NYSE Real Time Price

Analyst Estimates

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Earnings Est	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	0.22	0.59	1.04	1.37
No. of Analysts	3.00	3.00	4.00	5.00
Low Estimate	0.20	0.57	0.99	1.30
High Estimate	0.24	0.60	1.15	1.48
Year Ago EPS	0.21	0.52	0.94	1.04

Revenue Est	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	121.55M	157.60M	602.50M	668.55M
No. of Analysts	2	2	2	4
Low Estimate	97.10M	128.20M	595.00M	630.00M
High Estimate	146.00M	187.00M	610.00M	721.20M
Year Ago Sales	144.41M	183.54M	588.37M	602.50M
Sales Growth (year/est)	-15.80%	-14.10%	2.40%	11.00%

Earnings History	Jun 15	Sep 15	Dec 15	Mar 16
EPS Est	0.34	0.67	0.20	0.03
EPS Actual	0.21	0.52	0.18	-0.02
Difference	-0.13	-0.15	-0.02	-0.05
Surprise %	-38.20%	-22.40%	-10.00%	-166.70%

EPS Trends	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Current Estimate	0.22	0.59	1.04	1.37
7 Days Ago	0.22	0.59	1.04	1.37
30 Days Ago	0.22	0.59	1.03	1.34
60 Days Ago	0.23	0.58	1.04	1.35
90 Days Ago	0.32	0.73	1.23	1.40

EPS Revisions	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Up Last 7 Days	1	0	0	0
Up Last 30 Days	1	0	0	0
Down Last 30 Days	1	0	0	2
Down Last 90 Days	N/A	N/A	N/A	N/A

Growth Est	CWT	Industry	Sector	S&P 500
Current Qtr.	4.80%	27.50%	59.40%	8.20%
Next Qtr.	13.50%	15.70%	-47.10%	14.00%
This Year	10.60%	-4.60%	13.10%	0.50%
Next Year	31.70%	1.00%	15.30%	12.80%
Past 5 Years (per annum)	19.85%	N/A	N/A	N/A
Next 5 Years (per annum)	9.05%	7.40%	5.58%	6.88%

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Connecticut Water Service Inc. (CTWS) - NasdaqGS

47.66 0.13(0.27%) 3:15PM EDT - Nasdaq Real Time Price

Analyst Estimates

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Earnings Est	Current Qtr. Mar 16	Next Qtr. Jun 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	0.32	0.72	2.03	2.25
No. of Analysts	2.00	2.00	2.00	2.00
Low Estimate	0.30	0.70	1.95	2.15
High Estimate	0.33	0.73	2.10	2.34
Year Ago EPS	0.28	0.77	2.04	2.03

Revenue Est	Current Qtr. Mar 16	Next Qtr. Jun 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	20.73M	27.19M	99.64M	106.26M
No. of Analysts	1	1	2	2
Low Estimate	20.73M	27.19M	99.38M	105.00M
High Estimate	20.73M	27.19M	99.90M	107.52M
Year Ago Sales	20.03M	26.62M	96.04M	99.64M
Sales Growth (year/est)	3.50%	2.10%	3.70%	6.60%

Earnings History	Mar 15	Jun 15	Sep 15	Dec 15
EPS Est	0.33	0.69	0.80	0.21
EPS Actual	0.28	0.77	0.79	0.20
Difference	-0.05	0.08	-0.01	-0.01
Surprise %	-15.20%	11.60%	-1.30%	-4.80%

EPS Trends	Current Qtr. Mar 16	Next Qtr. Jun 16	Current Year Dec 16	Next Year Dec 17
Current Estimate	0.32	0.72	2.03	2.25
7 Days Ago	0.32	0.72	2.03	2.25
30 Days Ago	0.32	0.72	2.07	2.25
60 Days Ago	N/A	N/A	2.08	2.14
90 Days Ago	N/A	N/A	2.08	2.14

EPS Revisions	Current Qtr. Mar 16	Next Qtr. Jun 16	Current Year Dec 16	Next Year Dec 17
Up Last 7 Days	0	0	0	0
Up Last 30 Days	0	0	0	0
Down Last 30 Days	0	0	0	0
Down Last 90 Days	N/A	N/A	N/A	N/A

Growth Est	CTWS	Industry	Sector	S&P 500
Current Qtr.	14.30%	27.50%	59.40%	8.20%
Next Qtr.	-6.50%	15.70%	-47.10%	14.00%
This Year	-0.50%	-4.60%	13.10%	0.50%
Next Year	10.80%	1.00%	15.30%	12.80%
Past 5 Years (per annum)	10.73%	N/A	N/A	N/A
Next 5 Years (per annum)	5.00%	7.40%	5.58%	6.88%

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Middlesex Water Co. (MSEX) - NasdaqGS ★ Watchlist Like 4

38.00 0.46(1.23%) 3:02PM EDT - Nasdaq Real Time Price

Analyst Estimates

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Earnings Est	Current Qtr. 0-00-31	Next Qtr. 0-03-31	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	N/A	N/A	N/A	N/A
No. of Analysts	N/A	N/A	N/A	N/A
Low Estimate	N/A	N/A	N/A	N/A
High Estimate	N/A	N/A	N/A	N/A
Year Ago EPS	N/A	0.20	N/A	N/A

Revenue Est	Current Qtr. 0-00-31	Next Qtr. 0-03-31	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	128.00M	128.00M	128.00M	130.90M
No. of Analysts	1	1	1	1
Low Estimate	128.00M	128.00M	128.00M	130.90M
High Estimate	128.00M	128.00M	128.00M	130.90M
Year Ago Sales	126.02M	126.02M	126.02M	128.00M
Sales Growth (year/est)	1.60%	1.60%	1.60%	2.30%

Earnings History		Mar 14	Jun 14	Sep 14
EPS Est	N/A	0.16	0.29	0.39
EPS Actual	N/A	0.20	0.29	0.42
Difference	N/A	0.04	0.00	0.03
Surprise %	N/A	25.00%	0.00%	7.70%

EPS Trends	Current Qtr. 0-00-31	Next Qtr. 0-03-31	Current Year Dec 16	Next Year Dec 17
Current Estimate	N/A	N/A	N/A	N/A
7 Days Ago	N/A	N/A	1.30	1.37
30 Days Ago	N/A	N/A	1.30	1.37
60 Days Ago	N/A	N/A	1.30	1.37
90 Days Ago	N/A	N/A	1.26	1.32

EPS Revisions	Current Qtr. 0-00-31	Next Qtr. 0-03-31	Current Year Dec 16	Next Year Dec 17
Up Last 7 Days	N/A	N/A	0	0
Up Last 30 Days	N/A	N/A	0	0
Down Last 30 Days	N/A	N/A	0	0
Down Last 90 Days	N/A	N/A	N/A	N/A

Growth Est	MSEX	Industry	Sector	S&P 500
Current Qtr.	N/A	27.50%	59.40%	8.20%
Next Qtr.	N/A	15.70%	-47.10%	14.00%
This Year	N/A	-4.60%	13.10%	0.50%
Next Year	N/A	1.00%	15.30%	12.80%
Past 5 Years (per annum)	16.75%	N/A	N/A	N/A
Next 5 Years (per annum)	2.70%	7.40%	5.58%	6.88%
	N/A	23.19	15.70	16.04

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SJW Corp. (SJW) - NYSE Watchlist

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34.35 0.50(1.48%) 3:02PM EDT - NYSE Real Time Price

Analyst Estimates

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Earnings Est	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	0.41	0.58	1.57	1.74
No. of Analysts	1.00	1.00	1.00	1.00
Low Estimate	0.41	0.58	1.57	1.74
High Estimate	0.41	0.58	1.57	1.74
Year Ago EPS	0.36	0.46	1.85	1.57

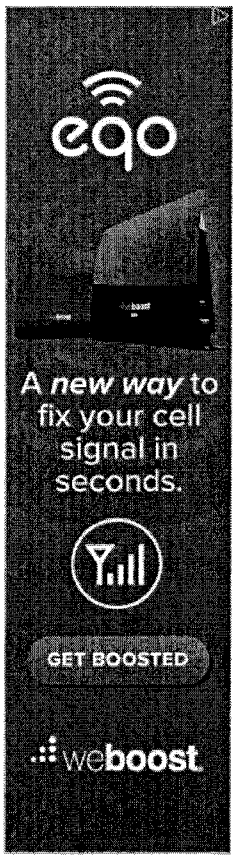
Revenue Est	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	75.00M	87.00M	304.00M	308.67M
No. of Analysts	1	1	1	1
Low Estimate	75.00M	87.00M	304.00M	308.67M
High Estimate	75.00M	87.00M	304.00M	308.67M
Year Ago Sales	72.40M	82.96M	305.08M	304.00M
Sales Growth (year/est)	3.60%	4.90%	-0.40%	1.50%

Earnings History	Jun 15	Sep 15	Dec 15	Mar 16
EPS Est	0.42	0.57	0.29	0.21
EPS Actual	0.36	0.46	0.79	0.16
Difference	-0.06	-0.11	0.50	-0.05
Surprise %	-14.30%	-19.30%	172.40%	-23.80%

EPS Trends	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Current Estimate	0.41	0.58	1.57	1.74
7 Days Ago	0.41	0.58	1.57	1.74
30 Days Ago	0.41	0.58	1.74	1.85
60 Days Ago	0.41	0.58	1.74	1.85
90 Days Ago	0.40	0.57	1.54	1.68

EPS Revisions	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Up Last 7 Days	0	0	0	0
Up Last 30 Days	0	0	0	0
Down Last 30 Days	0	0	1	0
Down Last 90 Days	N/A	N/A	N/A	N/A

Growth Est	SJW	Industry	Sector	S&P 500
Current Qtr.	13.90%	27.50%	59.40%	8.20%
Next Qtr.	26.10%	15.70%	-47.10%	14.00%
This Year	-15.10%	-4.60%	13.10%	0.50%
Next Year	10.80%	1.00%	15.30%	12.80%
Past 5 Years (per annum)	22.02%	N/A	N/A	N/A
Next 5 Years (per annum)	14.00%	7.40%	5.58%	6.88%



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The York Water Company (YORW) - NasdaqGS

29.20 0.36(1.26%) 3:16PM EDT - Nasdaq Real Time Price

Analyst Estimates

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Earnings Est	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	0.23	0.29	0.97	1.04
No. of Analysts	1.00	1.00	1.00	1.00
Low Estimate	0.23	0.29	0.97	1.04
High Estimate	0.23	0.29	0.97	1.04
Year Ago EPS	0.22	0.28	0.97	0.97

Revenue Est	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Avg. Estimate	12.08M	12.47M	47.85M	50.27M
No. of Analysts	1	1	1	1
Low Estimate	12.08M	12.47M	47.85M	50.27M
High Estimate	12.08M	12.47M	47.85M	50.27M
Year Ago Sales	11.90M	12.37M	47.09M	47.85M
Sales Growth (year/est)	1.60%	0.80%	1.60%	5.10%

Earnings History	Jun 15	Sep 15	Dec 15	Mar 16
EPS Est	0.25	0.26	0.23	0.20
EPS Actual	0.22	0.28	0.27	0.19
Difference	-0.03	0.02	0.04	-0.01
Surprise %	-12.00%	7.70%	17.40%	-5.00%

EPS Trends	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Current Estimate	0.23	0.29	0.97	1.04
7 Days Ago	0.23	0.29	0.99	1.04
30 Days Ago	0.23	0.29	1.01	1.08
60 Days Ago	N/A	N/A	0.99	1.05
90 Days Ago	N/A	N/A	0.99	1.05

EPS Revisions	Current Qtr. Jun 16	Next Qtr. Sep 16	Current Year Dec 16	Next Year Dec 17
Up Last 7 Days	0	0	0	0
Up Last 30 Days	0	0	0	0
Down Last 30 Days	0	0	1	1
Down Last 90 Days	N/A	N/A	N/A	N/A

Growth Est	YORW	Industry	Sector	S&P 500
Current Qtr.	4.50%	27.50%	59.40%	8.20%
Next Qtr.	3.60%	15.70%	-47.10%	14.00%
This Year	0.00%	-4.60%	13.10%	0.50%
Next Year	7.20%	1.00%	15.30%	12.80%
Past 5 Years (per annum)	9.03%	N/A	N/A	N/A
Next 5 Years (per annum)	4.90%	7.40%	5.58%	6.88%

SCHEDULES

WEIGHTED AVERAGE COST OF CAPITAL - BELLA VISTA WATER

Line No	Description	Capitalization Per Company	RUCO Adjustments	RUCO Adjusted Capitalization	Capital Ratio	Cost	Weighed Cost
1	Long Term Debt	$ 2,634,864	$ -	$ 2,634,864	30.00%	2.97%	0.89%
2							
3	Common Equity	6,148,016	$ -	$ 6,148,016	70.00%	9.17%	6.42%
4							
5	TOTAL CAPITALIZATION	$8,782,879	$ -	$8,782,879	100.00%		7.31%
6							
7	Indicated cost of debt: 1.81% average 10-year yield in April, 2016, plus 130 basis points.						

8
9

WEIGHTED AVERAGE COST OF CAPITAL - RIO RICO WATER & SEWER

10
11
12
13

Description	Capitalization Per Company	RUCO Adjustments	RUCO Adjusted Capitalization	Capital Ratio	Cost	Weighed Cost
Long Term Debt	$ 4,938,067	$ -	$ 4,938,067	30.00%	2.97%	0.89%
Common Equity	11,522,155	$ -	$ 11,522,155	70.00%	9.17%	6.42%
TOTAL CAPITALIZATION	$16,460,222	$ -	$16,460,222	100.00%		7.31%

14 15 16 17 18 19 20 21 22

Indicated cost of debt: 1.81% average 10-year yield in April, 2016, plus 130 basis points.

Liberty Utilities (Bella Vista Water and Rio Rico Water & Sewer) Corp.
Test Year Ending December 31, 2014
Docket Nos. W-02465A-15-0367, et al.

Cost of Capital -- Common Equity

Line No			[A] Unadjusted Cost Estimate	[B] Weighting Factor	[C] Weighted Average Cost Estimate
1	Discounted Cash Flow Model ("DCF")	Schedule JAC - 3	8.80%	40.00%	3.52%
2					
3	Capital Asset Pricing Model ("CAPM")	Schedule JAC - 4	7.44%	20.00%	1.49%
4					
5	Comparable Earnings Model ("CE")	Schedule JAC - 5	10.40%	40.00%	4.16%
6					
7	Cost of Common Equity		8.88%		**9.17%**
8					
9					
10	[A]: From Schedules JAC-3, JAC-4 and JAC-5				
11	[B]: See Testimony				
12	[C]: [A] * [B]				
13					
14					
15					
16					

PROXY GROUP -- DCF ANALYSIS

Line No	Proxy Group Companies	(A) Current Dividend Yield (D_0/P_0)	(B) Historic Retention Growth	(C) Projected Retention Growth	(D) Five Year Historic Growth Rate	(E) Projected Per Share Growth Rates	(F) Projected EPS Growth	(G) Average Growth	(H) Expected Dividend Yield (D_1/P_0)	(I) DCF Rates
1	American States Water Co.	2.1%	6.1%	6.0%	9.3%	5.7%	3.85%	6.2%	2.2%	8.3%
2	American Water Works Co., Inc	2.0%	4.2%	4.8%	8.5%	7.5%	7.60%	6.5%	2.1%	8.6%
3	Aqua America, Inc.	2.3%	5.3%	4.5%	9.2%	7.3%	6.05%	6.5%	2.3%	8.8%
4	Artesian Rtesources Corp.	3.1%	1.6%		3.3%		4.00%	3.0%	3.2%	6.1%
5	California Water Service Group	2.7%	3.0%	3.7%	3.7%	5.5%	9.05%	5.0%	2.7%	7.7%
6	Connecticut Water Service, Inc.	2.4%	3.5%	4.8%	6.8%	3.8%	5.00%	4.8%	2.5%	7.3%
7	Middlesex Water	2.5%	2.3%	3.3%	3.3%	3.5%	2.70%	3.0%	2.5%	5.6%
8	SJW Corporation	2.3%	5.0%	4.8%	7.5%	4.5%	14.00%	7.2%	2.4%	9.6%
9	York Water Company	2.1%	3.1%	4.0%	4.3%	5.3%	4.90%	4.3%	2.1%	6.5%
10										
11										
12										
13	Mean	2.39%	3.80%	4.50%	6.22%	5.40%	6.35%	5.17%	2.45%	**7.62%**
14										
15										
16	Median	2.34%	3.54%	4.67%	6.83%	5.42%	5.00%	4.98%	2.42%	**7.72%**
17										
18										
19	Composite-Mean		6.25%	6.95%	8.67%	7.85%	**8.80%**	7.62%		
20										
21										
22	Composite-Median		5.96%	7.09%	9.26%	**7.84%**	7.42%	7.41%		
23										
24										
25										

26 References:
27 Column (A) - Schedule JAC - 3, page 3 of 4
28 Column (B) - Schedule JAC - 3, page 4 of 4
29 Column (C) - Schedule JAC - 3, page 4 of 4
30 Column (D) and Column (E) - Schedule JAC - 3, page 2 of 4
31 Column (F) See Yahoo Finance, Growth Estimates - Next 5 Years - Attachment 7
32 Column (G) - Average Columns (B) through (F)
33 Column (H) - Column (A) * [1 + Column (G)]
34 Column (I) - Column (G) + Column (H)
35

PROXY GROUP -- PER SHARE GROWTH RATES

Line No	Proxy Group Companies	5-Year Historic Growth Rates				Est'd '13-'15 to '19-'21 Growth Rates			
		EPS	DPS	BVPS	Average	EPS	DPS	BVPS	Average
1									
2	American States Water Co.	12.0%	10.0%	6.0%	9.3%	6.0%	7.0%	4.0%	5.7%
3	American Water Works Co., Inc	13.0%	10.0%	2.5%	8.5%	8.0%	10.5%	4.0%	7.5%
4	Aqua America, Inc.	13.0%	7.5%	7.0%	9.2%	7.0%	9.0%	6.0%	7.3%
5	Artesian Rtesources Corp.	3.0%	3.0%	4.0%	3.3%				
6	California Water Service Group	4.0%	2.0%	5.0%	3.7%	6.0%	6.5%	4.0%	5.5%
7	Connecticut Water Service, Inc.	9.0%	2.0%	9.5%	6.8%	4.5%	4.5%	2.5%	3.8%
8	Middlesex Water	5.5%	1.5%	3.0%	3.3%	3.5%	3.0%	4.0%	3.5%
9	SJW Corporation	15.0%	2.5%	5.0%	7.5%	1.5%	6.0%	6.0%	4.5%
10	York Water Company	6.0%	2.5%	4.5%	4.3%	6.0%	6.5%	3.5%	5.3%
9									
10									
11					6.2%				5.4%
12									
13	**Reference:**								
14	Value Line Investment Survey (April 15, 2016) - See Attachment 1								
15									
16									
17									

PROXY GROUP -- DIVIDEND YIELD

Line No	Proxy Group Companies	(A) DPS	(B) February 2016 - April 2016 High	(C) Low	(D) Average	(E) Yield
1	American States Water Co.	$0.90	$47.24	$38.25	$42.75	2.1%
2	American Water Works Co., Inc	$1.36	$72.88	$63.16	$68.02	2.0%
3	Aqua America, Inc.	$0.71	$32.44	$30.31	$31.38	2.3%
4	Artesian Rtesources Corp.	$0.89	$31.94	$25.17	$28.56	3.1%
5	California Water Service Group	$0.69	$28.46	$23.20	$25.83	2.7%
6	Connecticut Water Service, Inc.	$1.07	$47.40	$40.36	$43.88	2.4%
7	Middlesex Water	$0.80	$36.89	$26.46	$31.68	2.5%
8	SJW Corporation	$0.81	$37.86	$31.38	$34.62	2.3%
9	York Water Company	$0.62	$33.40	$26.27	$29.84	2.1%
10						
11						
12	Average					**2.39%**
13						
14						
15						
16						
17	**References:**					
18	Column (A) - Value Line Investment Survey (April 15, 2016) - Fourth Quarter Dividends Annualized					
19	Columns (B), (C), and (D) - Yahoo Finance					
20						

PROXY GROUP -- GROWTH RATES - RETAINED TO COMMON EQUITY

Line No	Proxy Group Companies	(A) 2011	(B) 2012	(C) 2013	(D) 2014	(E) 2015	Average	2016	2017	2019-'21	Average
1	American States Water Co.	5.3%	6.6%	6.8%	5.7%	6.0%	6.1%	6.0%	6.0%	6.0%	6.0%
2	American Water Works Co., Inc	3.5%	3.6%	4.7%	4.3%	4.7%	4.2%	4.5%	5.0%	5.0%	4.8%
3	Aqua America, Inc.	4.6%	4.3%	6.7%	6.1%	4.7%	5.3%	7.0%	7.0%	5.5%	4.5%
4	Artesian Rtesources Corp.	0.5%	2.5%	0.9%	1.6%	2.6%	1.6%				
5	California Water Service Group	2.3%	3.4%	3.4%	4.1%	2.0%	3.0%	2.5%	4.5%	4.0%	3.7%
6	Connecticut Water Service, Inc.	1.4%	2.8%	3.8%	4.8%	4.9%	3.5%	5.0%	5.0%	4.5%	4.8%
7	Middlesex Water	1.0%	1.4%	2.4%	3.1%	3.5%	2.3%	3.5%	3.5%	3.0%	3.3%
8	SJW Corporation	3.1%	3.3%	2.8%	10.2%	5.7%	5.0%	5.0%	5.5%	4.0%	4.8%
9	York Water Company	2.5%	2.4%	2.4%	3.9%	4.5%	3.1%	4.0%	4.5%	3.5%	4.0%
10											
11											
12	Average						**3.8%**				**4.5%**
13											
14											
15	Source: Value Line Investment Survey (April 15, 2016)										
16											
17											
18											
19											
20											

CAPITAL ASSET PRICING MODEL -- HISTORICAL MARKET RISK PREMIUM

Line No	Proxy Group Companies	[A] Risk Free Rate	[B] BETA		[C] Risk Premium		[D] CAPM Rates	[E] CAPM Cost of Equity Capital
1	American States Water Co.	2.64%	0.75	X	6.91%	=	5.18%	7.83%
2	American Water Works Co., Inc	2.64%	0.70	X	6.91%	=	4.84%	7.48%
3	Aqua America, Inc.	2.64%	0.75	X	6.91%	=	5.18%	7.83%
4	Artesian Resources Corp.	2.64%	0.55	X	6.91%	=	3.80%	6.44%
5	California Water Service Group	2.64%	0.75	X	6.91%	=	5.18%	7.83%
6	Connecticut Water Service, Inc.	2.64%	0.60	X	6.91%	=	4.15%	6.79%
7	Middlesex Water	2.64%	0.70	X	6.91%	=	4.84%	7.48%
8	SJW Corporation	2.64%	0.75	X	6.91%	=	5.18%	7.83%
9	York Water Company	2.64%	0.70	X	6.91%	=	4.84%	7.48%
10								
11	Average							**7.44%**
12								
13								
14								

15	20 year Treasury Bonds		30 year Treasury Bonds
16	February, 2016	2.20%	2.62%
17	March, 2016	2.28%	2.68%
18	April, 2016	2.21%	2.62%
19	Average	2.23%	2.64%
20			
21	RUCO Risk-Free Rate	2.64%	
22			

23 **REFERENCES**

24 Column [A]: Federal Reserve Selected Interest Rates H.15 - Attachment 2

25 Column [B]: Value Line Investment Survey (April 15, 2016) - See Attachment 1

26 Column [C]: JAC - 4, Page 2 of 2

27 Column [D]: [B] * [C]

Column [E]: [A] + [D]

STANDARD & POOR'S 500 COMPOSITE
20-YEAR U.S. TREASURY BOND YIELDS
RISK PREMIUMS

Line No.	Year	[A] EPS	[B] BVPS	[C] ROE	[D] 20-YEAR T-BOND	[E] RISK PREMIUM
1	1977		$79.07			
2	1978	$12.33	$85.35	15.00%	7.90%	7.10%
3	1979	$14.86	$94.27	16.55%	8.86%	7.69%
4	1980	$14.82	$102.48	15.06%	9.97%	5.09%
5	1981	$15.36	$109.43	14.50%	11.55%	2.95%
6	1982	$12.64	$112.46	11.39%	13.50%	-2.11%
7	1983	$14.03	$116.93	12.23%	10.38%	1.85%
8	1984	$16.64	$122.47	13.90%	11.74%	2.16%
9	1985	$14.61	$125.20	11.80%	11.25%	0.55%
10	1986	$14.48	$126.82	11.49%	8.98%	2.51%
11	1987	$17.50	$134.07	13.42%	7.92%	5.50%
12	1988	$23.75	$141.32	17.25%	8.97%	8.28%
13	1989	$22.87	$147.26	15.85%	8.81%	7.04%
14	1990	$21.73	$153.01	14.47%	8.19%	6.28%
15	1991	$16.29	$158.85	10.45%	8.22%	2.23%
16	1992	$18.86	$149.74	12.22%	7.29%	4.93%
17	1993	$21.89	$180.88	13.24%	7.17%	6.07%
18	1994	$30.60	$193.06	16.37%	6.59%	9.78%
19	1995	$33.96	$216.51	16.58%	7.60%	8.98%
20	1996	$38.73	$237.08	17.08%	6.18%	10.90%
21	1997	$39.72	$249.52	16.33%	6.64%	9.69%
22	1998	$37.71	$266.40	14.62%	5.83%	8.79%
23	1999	$48.17	$290.68	17.29%	5.57%	11.72%
24	2000	$50.00	$325.80	16.22%	6.50%	9.72%
25	2001	$24.70	$338.37	7.44%	5.53%	1.91%
26	2002	$27.59	$321.72	8.36%	5.59%	2.77%
27	2003	$48.73	$367.17	14.15%	4.80%	9.35%
28	2004	$58.55	$414.75	14.98%	5.02%	9.96%
29	2005	$69.93	$453.06	16.12%	4.69%	11.43%
30	2006	$81.51	$504.39	17.03%	4.68%	12.35%
31	2007	$66.18	$529.59	12.80%	4.86%	7.94%
32	2008	$14.88	$451.37	3.03%	4.45%	-1.42%
33	2009	$50.97	$513.58	10.56%	3.47%	7.09%
34	2010	$77.35	$579.14	14.16%	4.25%	9.91%
35	2011	$86.95	$613.14	14.59%	3.81%	10.78%
36	2012	$86.51	$666.97	13.52%	2.40%	11.12%
37	2013	$100.20	$715.84	14.49%	2.86%	11.63%
38	2014	$102.31	$726.96	14.18%	3.33%	10.85%
39	2015	$86.53	$740.29	11.79%	2.55%	9.25%
40	Average			**13.70%**	**6.79%**	**6.91%**

[A]: Diluted earnings per share on the S&P 500 Composite Index.
[B]: Book value per share on the S&P 500 Composite Index.
[C]: Average of current- and prior year [B] / current year [A].
[D]: Annual income returns on 20-year U.S. Treasury bonds.
[E]: [C] - [D]
Sources for [A] and [B]: Standard & Poor's 2015 Analysts' Handbook and Standard & Poor's 500 Earnings Report
https://ycharts.com/indicators/reports/sp_500_earnings
Source for [D]: Morningstar 2015 Classic Yearbook (Table A-7) and U.S. Department of the Treasury
https://www.treasury.gov/Pages/default.aspx

Liberty Utilities (Bella Vista Water and Rio Rico Water & Sewer) Corp.
Test Year Ending December 31, 2014
Docket Nos. W-02465A-15-0367, et al.

COMPARABLE EARNINGS ANALYSIS

RETURN ON COMMON EQUITY FOR RUCO'S PROXY GROUP OF COMPANIES

Company	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2019 - 2021	10-Year Historical Average 2006-2015	5-Year Historical Average 2011-2015	5-Year Projected Average 2016-2020
American States Water Co.	8.1%	9.3%	8.6%	8.2%	11.0%	10.3%	11.9%	12.7%	12.0%	13.0%	12.5%	13.0%	13.5%	10.5%	12.0%	13.0%
American Water Works				5.2%	6.5%	7.2%	8.4%	7.8%	8.7%	9.4%	9.5%	10.0%	10.5%	7.6%	8.3%	10.0%
Aqua America, Inc.	10.0%	9.7%	9.3%	9.4%	10.6%	11.6%	11.0%	13.4%	12.9%	11.7%	12.5%	12.5%	13.5%	11.0%	12.1%	12.8%
Artesian Resources		7.4%	7.3%	8.0%	8.0%	6.0%	8.3%	6.8%	7.6%	8.5%				7.5%	7.4%	
California Water Service Group	6.8%	8.1%	9.9%	9.6%	8.6%	8.0%	9.0%	7.9%	9.1%	7.0%	7.5%	9.5%	10.0%	8.4%	8.2%	9.0%
Connecticut Water Service, Inc.	7.0%	8.7%	9.1%	9.4%	8.7%	8.3%	7.3%	9.2%	10.2%	10.1%	10.0%	10.0%	10.5%	8.8%	9.0%	10.2%
Middlesex Water	7.8%	8.7%	8.9%	7.0%	8.2%	7.5%	7.8%	8.7%	9.3%	9.6%	10.0%	10.0%	9.0%	8.4%	8.6%	9.7%
SJW Corporation	9.7%	8.2%	8.0%	6.0%	6.2%	7.9%	8.1%	7.3%	14.4%	9.9%	9.5%	9.5%	9.0%	8.6%	9.5%	9.3%
York Water	9.3%	9.5%	9.2%	8.6%	9.8%	9.5%	9.3%	9.3%	11.0%	11.5%	11.5%	11.5%	12.5%	9.7%	10.1%	11.8%
Mean	8.4%	8.7%	8.8%	7.9%	8.6%	8.5%	9.0%	9.2%	10.6%	10.1%	10.4%	10.8%	11.1%	8.9%	9.5%	**10.7%**
Median	8.1%	8.7%	9.0%	8.2%	8.6%	8.0%	8.4%	8.7%	10.2%	9.9%	10.0%	10.0%	10.5%	8.6%	9.0%	**10.1%**
Average of Mean and Median																**10.4%**

Source: Value Line Investment Survey (April 15, 2016).

ECONOMIC INDICATORS

Line No	Year	Real GDP Growth	Industrial Production Growth	Unemploy-ment Rate	Consumer Price Index	Producer Price Index
1	1975	-1.1%	-8.9%	8.5%	7.0%	6.6%
2	1976	5.4%	10.8%	7.7%	4.8%	3.7%
3	1977	5.5%	5.9%	7.0%	6.8%	6.9%
4	1978	5.0%	5.7%	6.0%	9.0%	9.2%
5	1979	2.8%	4.4%	5.8%	13.3%	12.8%
6	1980	-0.2%	-1.9%	7.0%	12.4%	11.8%
7	1981	1.8%	1.9%	7.5%	8.9%	7.1%
8	1982	-2.1%	-4.4%	9.5%	3.8%	3.6%
9	1983	4.0%	3.7%	9.5%	3.8%	0.6%
10	1984	6.8%	9.3%	7.5%	3.9%	1.7%
11	1985	3.7%	1.7%	7.2%	3.8%	1.8%
12	1986	3.1%	0.9%	7.0%	1.1%	-2.3%
13	1987	2.9%	4.9%	6.2%	4.4%	2.2%
14	1988	3.8%	4.5%	5.5%	4.4%	4.0%
15	1989	3.5%	1.8%	5.3%	4.6%	4.9%
16	1990	1.8%	-0.2%	5.6%	6.1%	5.7%
17	1991	-0.5%	-2.0%	6.8%	3.1%	-0.1%
18	1992	3.0%	3.1%	7.5%	2.9%	1.6%
19	1993	2.7%	3.4%	6.9%	2.7%	0.2%
20	1994	4.0%	5.5%	6.1%	2.7%	1.7%
21	1995	3.7%	4.8%	5.6%	2.5%	2.3%
22	1996	4.5%	4.3%	5.4%	3.3%	2.8%
23	1997	4.5%	7.3%	4.9%	1.7%	-1.2%
24	1998	4.2%	5.8%	4.5%	1.6%	0.0%
25	1999	3.7%	4.5%	4.2%	2.7%	2.9%
26	2000	4.1%	4.0%	4.0%	3.4%	3.6%
27	2001	1.1%	-3.4%	4.7%	1.6%	-1.6%
28	2002	1.8%	0.2%	5.8%	2.4%	1.2%
29	2003	2.8%	1.2%	6.0%	1.9%	4.0%
30	2004	3.8%	2.3%	5.5%	3.3%	4.2%
31	2005	3.3%	3.2%	5.1%	3.4%	5.4%
32	2006	2.7%	2.2%	4.6%	2.5%	1.1%
33	2007	1.8%	2.5%	4.6%	4.1%	6.2%
34	2008	-0.3%	-3.4%	5.8%	0.1%	-0.9%
35	2009	-2.8%	-11.3%	9.3%	2.7%	4.3%
36	2010	2.5%	5.6%	9.6%	1.5%	4.7%
37	2011	1.6%	3.0%	8.9%	3.0%	4.7%
38	2012	2.2%	2.8%	8.1%	1.7%	1.4%
39	2013	1,5%	1.9%	7.4%	1.5%	0.8%
40	2014	2.4%	3.7%	6.2%	0.8%	-1.2%
41	2015	2.4%	1.3%	5.3%	0.7%	-3.7%

Source: Council of Economic Advisors, Economic Indicators, various issues.

ECONOMIC INDICATORS

Line No	Year	Real GDP* Growth	Industrial Production Growth	Unemploy-ment Rate	Consumer Price Index	Producer Price Index
1	**2003**					
2	1st Qtr.	1.2%	1.1%	5.8%	4.8%	5.6%
3	2nd Qtr.	3.5%	-0.9%	6.2%	0.0%	-0.5%
4	3rd Qtr.	7.5%	-0.9%	6.1%	3.2%	3.2%
5	4th Qtr.	2.7%	1.5%	5.9%	-0.3%	2.8%
6	**2004**					
7	1st Qtr.	3.0%	2.8%	5.6%	5.2%	5.2%
8	2nd Qtr.	3.5%	4.9%	5.6%	4.4%	4.4%
9	3rd Qtr.	3.6%	4.6%	5.4%	0.8%	0.8%
10	4th Qtr.	2.5%	4.3%	5.4%	3.6%	7.2%
11	**2005**					
12	1st Qtr.	4.1%	3.8%	5.3%	4.4%	5.6%
13	2nd Qtr.	1.7%	3.0%	5.1%	1.6%	-0.4%
14	3rd Qtr.	3.1%	2.7%	5.0%	8.8%	14.0%
15	4th Qtr.	2.1%	2.9%	4.9%	-2.0%	4.0%
16	**2006**					
17	1st Qtr.	5.4%	3.4%	4.7%	4.8%	-0.2%
18	2nd Qtr.	1.4%	4.5%	4.6%	4.8%	5.6%
19	3rd Qtr.	0.1%	5.2%	4.7%	0.4%	-4.4%
20	4th Qtr.	3.0%	3.5%	4.5%	0.0%	3.6%
21	**2007**					
22	1st Qtr.	0.9%	2.5%	4.5%	4.8%	6.4%
23	2nd Qtr.	3.2%	1.6%	4.5%	5.2%	6.8%
24	3rd Qtr.	2.3%	1.8%	4.6%	1.2%	1.2%
25	4th Qtr.	2.9%	1.7%	4.8%	0.6%	6.5%
26	**2008**					
27	1st Qtr.	-1.8%	1.9%	4.9%	2.8%	9.6%
28	2nd Qtr.	1.3%	0.2%	5.3%	7.6%	14.0%
29	3rd Qtr.	-3.7%	-3.0%	6.0%	2.8%	-0.4%
30	4th Qtr.	-8.9%	6.0%	6.9%	-13.2%	-28.4%
31	**2009**					
32	1st Qtr.	-5.3%	-11.6%	8.1%	2.4%	-0.4%
33	2nd Qtr.	-0.3%	-12.9%	9.3%	3.2%	9.2%
34	3rd Qtr.	1.4%	-9.3%	9.6%	2.0%	-0.8%
35	4th Qtr.	4.0%	-4.5%	10.0%	2.5%	8.8%
36	**2010**					
37	1st Qtr.	1.6%	2.7%	9.7%	0.9%	6.5%
38	2nd Qtr.	3.9%	6.5%	9.7%	-1.2%	-2.4%
39	3rd Qtr.	2.8%	6.9%	9.6%	2.8%	4.0%
40	4th Qtr.	2.8%	6.2%	9.6%	2.8%	9.2%
41	**2011**					
42	1st Qtr.	-1.5%	5.4%	9.0%	4.8%	9.6%
43	2nd Qtr.	2.9%	3.6%	9.0%	3.2%	3.6%
44	3rd Qtr.	0.8%	3.3%	9.1%	2.4%	6.4%
45	4th Qtr.	4.6%	4.0%	8.7%	0.4%	-1.2%
46	**2012**					
47	1st Qtr.	2.3%	4.5%	8.3%	3.2%	2.0%
48	2nd Qtr.	1.6%	4.7%	8.2%	0.0%	-2.8%
49	3rd Qtr.	2.5%	3.4%	8.1%	4.0%	9.6%
50	4th Qtr.	0.1%	2.8%	7.8%	0.0%	-3.6%
51	**2013**					
52	1st Qtr.	1.9%	2.5%	7.7%	2.0%	1.2%
53	2nd Qtr.	1.1%	2.0%	7.6%	1.2%	2.4%
54	3rd Qtr.	3.0%	2.6%	7.3%	1.6%	0.0%
55	4th Qtr.	3.8%	3.3%	7.0%	1.2%	0.3%
56	**2014**					
57	1st Qtr.	-0.9%	3.2%	6.6%	1.6%	0.3%
58	2nd Qtr.	4.6%	4.2%	6.2%	3.6%	0.2%
59	3rd Qtr.	4.3%	4.7%	6.1%	0.0%	0.0%
60	4th Qtr.	2.1%	4.5%	5.7%	-2.8%	-0.8%
61	**2015**					
62	1st Qtr.	0.6%	3.5%	5.6%	-0.2%	-2.3%
63	2nd Qtr.	3.9%	1.5%	5.4%	0.6%	1.2%
64	3rd Qtr.	2.0%	1.1%	5.2%	0.0%	-1.8%
65	4th Qtr.	1.0%	-0.8%	5.0%	0.2%	-0.9%

*GDP=Gross Domestic Product

Source: Council of Economic Advisors, Economic Indicators, various issues.

INTEREST RATES

Line No	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
1	1975	7.86%	5.84%	7.99%	9.03%	9.44%	10.09%	10.96%
2	1976	6.84%	4.99%	7.61%	8.63%	8.92%	9.29%	9.82%
3	1977	6.83%	5.27%	7.42%	8.19%	8.43%	8.61%	9.06%
4	1978	9.06%	7.22%	8.41%	8.87%	9.10%	9.29%	9.62%
5	1979	12.67%	10.04%	9.43%	9.86%	10.22%	10.49%	10.96%
6	1980	15.27%	11.51%	11.43%	12.30%	13.00%	13.34%	13.95%
7	1981	18.89%	14.03%	13.92%	14.64%	15.30%	15.95%	16.60%
8	1982	14.86%	10.69%	13.01%	14.22%	14.79%	15.86%	16.45%
9	1983	10.79%	8.63%	11.10%	12.52%	12.83%	13.66%	14.20%
10	1984	12.04%	9.58%	12.46%	12.72%	13.66%	14.03%	14.53%
11	1985	9.93%	7.48%	10.62%	11.68%	12.06%	12.47%	12.96%
12	1986	8.33%	5.98%	7.67%	8.92%	9.30%	9.58%	10.00%
13	1987	8.21%	5.82%	8.39%	9.52%	9.77%	10.10%	10.53%
14	1988	9.32%	6.69%	8.85%	10.05%	10.26%	10.49%	11.00%
15	1989	10.87%	8.12%	8.49%	9.32%	9.56%	9.77%	9.97%
16	1990	10.01%	7.51%	8.55%	9.45%	9.65%	9.86%	10.06%
17	1991	8.46%	5.42%	7.86%	8.85%	9.09%	9.36%	9.55%
18	1992	6.25%	3.45%	7.01%	8.19%	8.55%	8.69%	8.86%
19	1993	6.00%	3.02%	5.87%	7.29%	7.44%	7.59%	7.91%
20	1994	7.15%	4.29%	7.09%	8.07%	8.21%	8.31%	8.63%
21	1995	8.83%	5.51%	6.57%	7.68%	7.77%	7.89%	8.29%
22	1996	8.27%	5.02%	6.44%	7.48%	7.57%	7.75%	8.16%
23	1997	8.44%	5.07%	6.35%	7.43%	7.54%	7.60%	7.95%
24	1998	8.35%	4.81%	5.26%	6.77%	6.91%	7.04%	7.26%
25	1999	8.00%	4.66%	5.65%	7.21%	7.51%	7.62%	7.88%
26	2000	9.23%	5.85%	6.03%	7.88%	8.06%	8.24%	8.36%
27	2001	6.91%	3.44%	5.02%	7.47%	7.59%	7.78%	8.02%
28	2002	4.67%	1.62%	4.61%	[1]	7.19%	7.37%	8.02%
29	2003	4.12%	1.01%	4.01%		6.40%	6.58%	6.84%
30	2004	4.34%	1.38%	4.27%		6.04%	6.16%	6.40%
31	2005	6.19%	3.16%	4.29%		5.44%	5.65%	5.93%
32	2006	7.96%	4.73%	4.80%		5.84%	6.07%	6.32%
33	2007	8.05%	4.41%	4.63%		5.94%	6.07%	6.33%
34	2008	5.09%	1.48%	3.66%		6.18%	6.53%	7.25%
35	2009	3.25%	0.16%	3.26%		5.75%	6.04%	7.06%
36	2010	3.25%	0.14%	3.22%		5.24%	5.46%	5.96%
37	2011	3.25%	0.06%	2.78%		4.78%	5.04%	5.57%
38	2012	3.25%	0.09%	1.80%		3.83%	4.13%	4.86%
39	2013	3.25%	0.06%	2.35%		4.24%	4.47%	4.98%
40	2014	3.25%	0.03%	2.54%		4.19%	4.28%	4.80%
41	2015	3.27%	0.05%	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

Line No		Prime Rate	US Treasury T Bills 3 Month	US Treasury T Bonds 10 Year	Utility Bonds Aa	Utility Bonds A	Utility Bonds Baa
1	**2007**						
2	Jan	8.25%	4.96%	4.76%	5.78%	5.96%	6.16%
3	Feb	8.25%	5.02%	4.72%	5.73%	5.90%	6.10%
4	Mar	8.25%	4.97%	4.56%	5.66%	5.85%	6.10%
5	Apr	8.25%	4.88%	4.69%	5.83%	5.97%	6.24%
6	May	8.25%	4.77%	4.75%	5.86%	5.99%	6.23%
7	June	8.25%	4.63%	5.10%	6.18%	6.30%	6.54%
8	July	8.25%	4.84%	5.00%	6.11%	6.25%	6.49%
9	Aug	8.25%	4.34%	4.67%	6.11%	6.24%	6.51%
10	Sept	7.75%	4.01%	4.52%	6.10%	6.18%	6.45%
11	Oct	7.50%	3.97%	4.53%	6.04%	6.11%	6.36%
12	Nov	7.50%	3.49%	4.15%	5.87%	5.97%	6.27%
13	Dec	7.25%	3.08%	4.10%	6.03%	6.16%	6.51%
14	**2008**						
15	Jan	6.00%	2.86%	3.74%	5.87%	6.02%	6.35%
16	Feb	6.00%	2.21%	3.74%	6.04%	6.21%	6.60%
17	Mar	5.25%	1.38%	3.51%	5.99%	6.21%	6.68%
18	Apr	5.00%	1.32%	3.68%	5.99%	6.29%	6.82%
19	May	5.00%	1.71%	3.88%	6.07%	6.27%	6.79%
20	June	5.00%	1.90%	4.10%	6.19%	6.38%	6.93%
21	July	5.00%	1.72%	4.01%	6.13%	6.40%	6.97%
22	Aug	5.00%	1.79%	3.89%	6.09%	6.37%	6.98%
23	Sept	5.00%	1.46%	3.69%	6.13%	6.49%	7.15%
24	Oct	4.00%	0.84%	3.81%	6.95%	7.56%	8.58%
25	Nov	4.00%	0.30%	3.53%	6.83%	7.60%	8.98%
26	Dec	3.25%	0.04%	2.42%	5.93%	6.54%	8.13%
27	**2009**						
28	Jan	3.25%	0.12%	2.52%	6.01%	6.39%	7.90%
29	Feb	3.25%	0.31%	2.87%	6.11%	6.30%	7.74%
30	Mar	3.25%	0.25%	2.82%	6.14%	6.42%	8.00%
31	Apr	3.25%	0.17%	2.93%	6.20%	6.48%	8.03%
32	May	3.25%	0.15%	3.29%	6.23%	6.49%	7.76%
33	June	3.25%	0.17%	3.72%	6.13%	6.20%	7.30%
34	July	3.25%	0.19%	3.56%	5.63%	5.97%	6.87%
35	Aug	3.25%	0.18%	3.59%	5.33%	5.71%	6.36%
36	Sept	3.25%	0.13%	3.40%	5.15%	5.53%	6.12%
37	Oct	3.25%	0.08%	3.39%	5.23%	5.55%	6.14%
38	Nov	3.25%	0.05%	3.40%	5.33%	5.64%	6.18%
39	Dec	3.25%	0.07%	3.59%	5.52%	5.79%	6.26%
40	**2010**						
41	Jan	3.25%	0.06%	3.73%	5.55%	5.77%	6.16%
42	Feb	3.25%	0.10%	3.69%	5.69%	5.87%	6.25%
43	Mar	3.25%	0.15%	3.73%	5.64%	5.84%	6.22%
44	Apr	3.25%	0.15%	3.85%	5.62%	5.81%	6.19%
45	May	3.25%	0.16%	3.42%	5.29%	5.50%	5.97%
46	June	3.25%	0.12%	3.20%	5.22%	5.46%	6.18%
47	July	3.25%	0.16%	3.01%	4.99%	5.26%	5.98%
48	Aug	3.25%	0.15%	2.70%	4.75%	5.01%	5.55%
49	Sept	3.25%	0.15%	2.65%	4.74%	5.01%	5.53%
50	Oct	3.25%	0.13%	2.54%	4.89%	5.10%	5.62%
51	Nov	3.25%	0.13%	2.76%	5.12%	5.37%	5.85%
52	Dec	3.25%	0.15%	3.29%	5.32%	5.56%	6.04%

Line No		Prime Rate	US Treasury T Bills 3 Month	US Treasury T Bonds 10 Year	Utility Bonds Aa	Utility Bonds A	Utility Bonds Baa
1	**2011**						
2	Jan	3.25%	0.15%	3.39%	5.29%	5.57%	6.06%
3	Feb	3.25%	0.14%	3.58%	5.42%	5.68%	6.10%
4	Mar	3.25%	0.11%	3.41%	5.33%	5.56%	5.97%
5	Apr	3.25%	0.06%	3.46%	5.32%	5.55%	5.98%
6	May	3.25%	0.04%	3.17%	5.08%	5.32%	5.74%
7	June	3.25%	0.04%	3.00%	5.04%	5.26%	5.67%
8	July	3.25%	0.03%	3.00%	5.05%	5.27%	5.70%
9	Aug	3.25%	0.05%	2.30%	4.44%	4.69%	5.22%
10	Sept	3.25%	0.02%	1.98%	4.24%	4.48%	5.11%
11	Oct	3.25%	0.02%	2.15%	4.21%	4.52%	5.24%
12	Nov	3.25%	0.01%	2.01%	3.92%	4.25%	4.93%
13	Dec	3.25%	0.02%	1.98%	4.00%	4.33%	5.07%
14	**2012**						
15	Jan	3.25%	0.02%	1.97%	4.03%	4.34%	5.06%
16	Feb	3.25%	0.08%	1.97%	4.02%	4.36%	5.02%
17	Mar	3.25%	0.09%	2.17%	4.16%	4.48%	5.13%
18	Apr	3.25%	0.08%	2.05%	4.10%	4.40%	5.11%
19	May	3.25%	0.09%	1.80%	3.92%	4.20%	4.97%
20	June	3.25%	0.09%	1.62%	3.79%	4.08%	4.91%
21	July	3.25%	0.10%	1.53%	3.58%	3.93%	4.85%
22	Aug	3.25%	0.11%	1.68%	3.65%	4.00%	4.88%
23	Sept	3.25%	0.10%	1.72%	3.69%	4.02%	4.81%
24	Oct	3.25%	0.10%	1.75%	3.68%	3.91%	4.54%
25	Nov	3.25%	0.11%	1.65%	3.60%	3.84%	4.42%
26	Dec	3.25%	0.08%	1.72%	3.75%	4.00%	4.56%
27	**2013**						
28	Jan	3.25%	0.07%	1.91%	3.90%	4.15%	4.66%
29	Feb	3.25%	0.10%	1.98%	3.95%	4.18%	4.74%
30	Mar	3.25%	0.09%	1.96%	3.90%	4.15%	4.66%
31	Apr	3.25%	0.06%	1.76%	3.74%	4.00%	4.49%
32	May	3.25%	0.05%	1.93%	3.91%	4.17%	4.65%
33	June	3.25%	0.05%	2.30%	4.27%	4.53%	5.08%
34	July	3.25%	0.04%	2.58%	4.44%	4.68%	5.21%
35	Aug	3.25%	0.04%	2.74%	4.53%	4.73%	5.28%
36	Sept	3.25%	0.02%	2.81%	4.58%	4.80%	5.31%
37	Oct	3.25%	0.06%	2.62%	4.48%	4.70%	5.17%
38	Nov	3.25%	0.07%	2.72%	4.56%	4.77%	5.24%
39	Dec	3.25%	0.07%	2.90%	4.59%	4.81%	5.25%
40	**2014**						
41	Jan	3.25%	0.05%	2.86%	4.44%	4.63%	5.09%
42	Feb	3.25%	0.06%	2.71%	4.38%	4.53%	5.01%
43	Mar	3.25%	0.05%	2.72%	4.40%	4.51%	5.00%
44	Apr	3.25%	0.04%	2.71%	4.30%	4.41%	4.85%
45	May	3.25%	0.03%	2.56%	4.16%	4.26%	4.69%
46	June	3.25%	0.03%	2.60%	4.23%	4.29%	4.73%
47	July	3.25%	0.03%	2.54%	4.16%	4.23%	4.66%
48	Aug	3.25%	0.03%	2.42%	4.07%	4.13%	4.65%
49	Sept	3.25%	0.02%	2.53%	4.18%	4.24%	4.79%
50	Oct	3.25%	0.02%	2.30%	3.96%	4.06%	4.67%
51	Nov	3.25%	0.02%	2.33%	4.03%	4.09%	4.75%
52	Dec	3.25%	0.04%	2.21%	3.90%	3.95%	4.70%

Line No		Prime Rate	US Treasury T Bills 3 Month	US Treasury T Bonds 10 Year	Utility Bonds Aa	Utility Bonds A	Utility Bonds Baa
1	**2015**						
2	Jan	3.25%	0.03%	1.88%	3.52%	3.58%	4.39%
3	Feb	3.25%	0.02%	1.98%	3.62%	3.67%	4.44%
4	Mar	3.25%	0.03%	2.04%	3.67%	3.74%	4.51%
5	Apr	3.25%	0.02%	1.94%	3.63%	3.75%	4.51%
6	May	3.25%	0.02%	2.20%	4.05%	4.17%	4.91%
7	June	3.25%	0.02%	2.36%	4.29%	4.39%	5.13%
8	July	3.25%	0.03%	2.32%	4.27%	4.40%	5.22%
9	Aug	3.25%	0.07%	2.17%	4.13%	4.25%	5.23%
10	Sept	3.25%	0.02%	2.17%	4.25%	4.39%	5.42%
11	Oct	3.25%	0.02%	2.07%	4.13%	4.29%	5.47%
12	Nov	3.25%	0.13%	2.26%	4.22%	4.40%	5.57%
13	Dec	3.50%	0.23%	2.24%	4.16%	4.35%	5.55%
14	**2016**						
15	Jan	3.50%	0.26%	2.09%			
16	Feb	3.50%	0.31%	1.78%			
17	Mar	3.50%	0.30%	1.89%			
18	Apr	3.50%	0.19%	1.81%			
19	May						
20	Jun						
21	Jul						
22	Aug						
23	Sep						
24	Oct						
25	Nov						
26	Dec						

[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.

STOCK PRICE INDICATORS

Line No	Year	S&P Composite	NASDAQ Composite	DJIA	S&P Dividend/Price Ratio	S&P Earnings/Price Ratio
1	1975			802.49	4.31%	9.15%
2	1976			974.92	3.77%	8.90%
3	1977			894.63	4.62%	10.79%
4	1978			820.23	5.28%	12.03%
5	1979			844.40	5.47%	13.46%
6	1980			891.41	5.26%	12.66%
7	1981			932.92	5.20%	11.96%
8	1982			884.36	5.81%	11.60%
9	1983			1,190.34	4.40%	8.03%
10	1984			1,178.48	4.64%	10.02%
11	1985			1,328.23	4.25%	8.12%
12	1986			1,792.76	3.49%	6.09%
13	1987			2,275.99	3.08%	5.48%
14	1988			2,060.82	3.64%	8.01%
15	1989	322.84		2,508.91	3.45%	7.41%
16	1990	334.59		2,678.94	3.61%	6.47%
17	1991	376.18	491.69	2,929.33	3.24%	4.79%
18	1992	415.74	$599.26	3,284.29	2.99%	4.22%
19	1993	451.21	715.16	3,522.06	2.78%	4.46%
20	1994	460.42	751.65	3,793.77	2.82%	5.83%
21	1995	541.72	925.19	4,493.76	2.56%	6.09%
22	1996	670.50	1,164.96	5,742.89	2.19%	5.24%
23	1997	873.43	1,469.49	7,441.15	1.77%	4.57%
24	1998	1,085.50	1,794.91	8,625.52	1.49%	3.46%
25	1999	1,327.33	2,728.15	10,464.88	1.25%	3.17%
26	2000	1,427.22	2,783.67	10,734.90	1.15%	3.63%
27	2001	1,194.18	2,035.00	10,189.13	1.32%	2.95%
28	2002	993.94	1,539.73	9,226.43	1.61%	2.92%
29	2003	965.23	1,647.17	8,993.59	1.77%	3.84%
30	2004	1,130.65	1,986.53	10,317.39	1.72%	4.89%
31	2005	1,207.06	2,099.03	10,547.67	1.83%	5.36%
32	2006	1,310.67	2,265.17	11,408.67	1.87%	5.78%
33	2007	1,476.66	2,577.12	13,169.98	1.86%	5.29%
34	2008	1,220.89	2,162.46	11,252.61	2.37%	3.54%
35	2009	946.73	1,841.03	8,876.15	2.40%	1.86%
36	2010	1,139.31	2,347.70	10,662.80	1.98%	6.04%
37	2011	1,268.89	2,680.42	11,966.36	2.05%	6.77%
38	2012	1,379.56	2,965.77	12,967.08	2.24%	6.20%
39	2013	1,642.51	3,537.69	14,999.67	2.14%	5.57%
40	2014	1,930.67	4,374.31	16,773.99	2.04%	5.25%
41	2015	2,061.20	4,943.49	17,590.61	2.10%	4.59%

Source: Council of Economic Advisors, Economic Indicators, various issues.
https://www.gpo.gov/fdsys/browse/collection.action?collectionCode=ECONI

STOCK PRICE INDICATORS

Line No		S&P Composite	NASDAQ Composite	DJIA	S&P Dividends/Price Ratio	S&P Earnings/Price Ratio
1	**2004**					
2	1st Qtr.	1,133.29	2,041.95	10,488.43	1.64%	4.62%
3	2nd Qtr.	1,122.87	1,984.13	10,289.04	1.71%	4.92%
4	3rd Qtr.	1,104.15	1,872.90	10,129.85	1.79%	5.18%
5	4th Qtr.	1,162.07	2,050.22	10,362.25	1.75%	4.83%
6						
7	**2005**					
8	1st Qtr.	1,191.98	2,056.01	10,648.48	1.77%	5.11%
9	2nd Qtr.	1,181.65	2,012.24	10,382.35	1.85%	5.32%
10	3rd Qtr.	1,225.91	2,144.61	10,532.24	1.83%	5.42%
11	4th Qtr.	1,262.07	2,246.09	10,827.79	1.86%	5.60%
12						
13	**2006**					
14	1st Qtr.	1,283.04	2,287.97	10,996.04	1.85%	5.61%
15	2nd Qtr.	1,281.77	2,240.46	11,188.84	1.90%	5.86%
16	3rd Qtr.	1,288.40	2,141.97	11,274.49	1.91%	5.88%
17	4th Qtr.	1,389.48	2,390.26	12,175.30	1.81%	5.75%
18						
19	**2007**					
20	1st Qtr.	1,425.30	2,444.85	12,470.97	1.84%	5.85%
21	2nd Qtr.	1,496.43	2,552.37	13,214.26	1.82%	5.65%
22	3rd Qtr.	1,490.81	2,609.68	13,488.43	1.86%	5.15%
23	4th Qtr.	1,494.09	2,701.59	13,502.95	1.91%	4.51%
24						
25	**2008**					
26	1st Qtr.	1,350.19	2,332.91	12,383.86	2.11%	4.55%
27	2nd Qtr.	1,371.65	2,426.26	12,508.59	2.10%	4.05%
28	3rd Qtr.	1,251.94	2,290.87	11,322.40	2.29%	3.94%
29	4th Qtr.	909.80	1,599.64	8,795.61	2.98%	1.65%
30						
31	**2009**					
32	1st Qtr.	809.31	1,485.14	7,774.06	3.00%	0.86%
33	2nd Qtr.	892.23	1,731.41	8,327.83	2.45%	0.82%
34	3rd Qtr.	996.68	1,985.25	9,229.93	2.16%	1.19%
35	4th Qtr.	1,088.70	2,162.33	10,172.78	1.99%	4.57%
36						
37	**2010**					
38	1st Qtr.	1,121.60	2,274.88	10,454.42	1.94%	5.21%
39	2nd Qtr.	1,135.25	2,343.40	10,570.54	1.97%	6.51%
40	3rd Qtr.	1,096.39	2,237.97	10,390.24	2.09%	6.30%
41	4th Qtr.	1,204.00	2,534.62	11,236.02	1.95%	6.15%
42						
43	**2011**					
44	1st Qtr.	1,302.74	2,741.01	12,024.62	1.85%	6.13%
45	2nd Qtr.	1,319.04	2,766.64	12,370.73	1.97%	6.35%
46	3rd Qtr.	1,237.12	2,613.11	11,671.47	2.15%	7.69%
47	4th Qtr.	1,225.65	2,600.91	11,798.65	2.25%	6.91%
48						
49	**2012**					
50	1st Qtr.	1,347.44	2,902.90	12,839.80	2.12%	6.29%
51	2nd Qtr.	1,350.39	2,928.62	12,765.58	2.30%	6.45%
52	3rd Qtr.	1,402.21	3,029.86	13,118.72	2.27%	6.00%
53	4th Qtr.	1,418.21	3,001.69	13,142.91	2.28%	6.07%
54						
55	**2013**					
56	1st Qtr.	1,514.41	3,177.10	14,000.30	2.21%	5.59%
57	2nd Qtr.	1,609.77	3,369.49	14,961.28	2.15%	5.66%
58	3rd Qtr.	1,675.31	3,643.63	15,255.25	2.14%	5.65%
59	4th Qtr.	1,770.45	3,960.54	15,751.96	2.06%	5.42%
60						
61	**2014**					
62	1st Qtr.	1,834.30	4,210.05	16,170.26	2.04%	5.39%
63	2nd Qtr.	1,900.37	4,195.81	16,603.50	2.06%	5.26%
64	3rd Qtr.	1,975.95	4,483.51	16,953.85	2.02%	5.38%
65	4th Qtr.	2012.04	4607.88	17368.36	2.03%	4.97%
66						
67	**2015**					
68	1st Qtr.	2063.46	4821.99	17806.47	2.02%	4.80%
69	2nd Qtr.	2102.03	5017.47	18007.48	2.05%	4.60%
70	3rd Qtr.	2,026.14	4,921.81	17,065.52	2.16%	4.72%
71	4th Qtr.	2,053.17	5,000.70	17,482.97	2.16%	4.23%

Source: Council of Economic Advisors, Economic Indicators, various issues.
https://www.gpo.gov/fdsys/browse/collection.action?collectionCode=ECONI

PROXY GROUP COMMON EQUITY RATIOS

	Company	2009	2010	2011	2012	2013	2014	2015
1	American States Water Co.	54.1%	55.7%	54.6%	57.8%	60.2%	60.9%	59.0%
2	American Water Works Co., Inc	43.1%	43.2%	44.2%	46.1%	47.6%	47.4%	46.0%
3	Aqua America, Inc.	44.4%	43.4%	47.3%	47.3%	51.1%	51.5%	50.0%
4	Artesian Rtesources Corp.	46.2%	47.5%	51.5%	52.7%	53.6%	53.6%	56.0%
5	California Water Service Group	52.9%	47.6%	48.3%	52.2%	58.4%	59.9%	56.0%
6	Connecticut Water Service, Inc.	49.1%	50.2%	46.5%	50.8%	52.9%	54.1%	56.0%
7	Middlesex Water	52.1%	55.8%	56.6%	57.4%	58.7%	58.8%	61.0%
8	SJW Corporation	50.6%	46.3%	43.4%	45.0%	48.9%	48.4%	50.0%
9	York Water Company	54.3%	51.7%	52.9%	54.0%	54.9%	55.2%	55.0%
10								
11								
12	Average	49.6%	49.0%	49.5%	51.5%	54.0%	54.4%	54.3%
13								
14								
15								
16	Source: Value Line January 15, 2016							
17								
18								
19								
20								
21								

EXHIBITS

Bourassa Schedule D-4.4 -- As Filed

		[1]	[2]	[3]	[4]	[5]	[6]	[7]
		Five-year historical average annual changes						
		Price[1]	Book Value[2]	EPS[2]	DPS[2]	Average Col 1-4	Value Line Projected EPS Growth	Average of Historical & Proj. Growth
American States Water	AWR	21.56%	6.50%	14.00%	8.50%	12.64%	6.00%	9.32%
Aqua America	WTR	20.11%	6.50%	13.00%	7.00%	11.65%	7.50%	9.58%
California Water	CWT	9.74%	5.00%	4.00%	2.00%	5.19%	6.50%	5.84%
Conn. Water Services	CTWS	14.28%	9.50%	9.00%	2.00%	8.70%	4.50%	6.60%
Middlesex Water	MSEX	13.00%	3.00%	4.50%	1.50%	5.50%	5.00%	5.25%
SJW Corp.	SJW	11.37%	3.50%	10.50%	3.00%	7.09%	1.50%	4.30%
York Water Co.	YORW	14.22%	4.50%	6.00%	2.50%	6.81%	6.50%	6.65%
Group Average		14.90%	5.50%	8.71%	3.79%	8.22%	5.36%	6.79%

RUCO Restatement of Bourassa Schedule D-4.4
Exclusive of Change in Stock Price as a Proxy for Dividend Growth, and with
All other Growth Metrics Updated as per Value Line

		[1]	[2]	[3]	[4]	[5]	[6]	[7]
		Five-year historical average annual changes						
		Price[1]	Book Value[2]	EPS[2]	DPS[2]	Average Col 2-4	Value Line Projected EPS Growth	Average of Historical & Proj. Growth
American States Water	AWR		6.00%	12.00%	10.00%	9.33%	6.00%	7.67%
Aqua America	WTR		7.00%	13.00%	7.50%	9.17%	7.00%	8.08%
California Water	CWT		5.00%	4.00%	2.00%	3.67%	6.00%	4.83%
Conn. Water Services	CTWS		9.50%	9.00%	2.00%	6.83%	4.50%	5.67%
Middlesex Water	MSEX		3.00%	5.50%	1.50%	3.33%	3.50%	3.42%
SJW Corp.	SJW		5.00%	15.00%	2.50%	7.50%	1.50%	4.50%
York Water Co.	YORW		4.50%	6.00%	2.50%	4.33%	6.00%	5.17%
Group Average			5.71%	9.21%	4.00%	**6.31%**	**4.93%**	**5.62%**
Overstatement to Estimated Growth Rates from Bourassa Schedule 4-4, as filed:						1.91%	0.43%	1.17%

Source: Value Line Investment Survey (April 15, 2016)

Bourassa Schedule D-4.5 -- As Filed

		[1]	[2]	[3]	[4]	[5]	[6]	[7]
		Ten-year historical average annual changes						
		Price[1]	Book Value[2]	EPS[2]	DPS[2]	Average Col 1-4	Value Line Projected EPS Growth	Average of Historical & Proj. Growth
American States Water	AWR	14.46%	6.00%	11.00%	5.50%	9.24%	6.00%	7.62%
Aqua America	WTR	8.84%	7.50%	8.50%	7.50%	8.09%	7.50%	7.79%
California Water	CWT	5.99%	5.50%	5.00%	1.50%	4.50%	6.50%	5.50%
Conn. Water Services	CTWS	6.91%	6.50%	4.00%	2.00%	4.85%	4.50%	4.68%
Middlesex Water	MSEX	5.94%	4.50%	4.00%	1.50%	3.98%	5.00%	4.49%
SJW Corp.	SJW	8.61%	6.00%	6.50%	4.00%	6.28%	1.50%	3.89%
York Water Co.	YORW	9.29%	6.50%	5.50%	4.00%	6.32%	6.50%	6.41%
Group Average		8.58%	6.07%	6.36%	3.71%	6.18%	5.36%	5.77%

RUCO Restatement of Bourassa Schedule D-4.5
Exclusive of Change in Stock Price as a Proxy for Dividend Growth, and with
All other Growth Metrics Updated as per Value Line

		[1]	[2]	[3]	[4]	[5]	[6]	[7]
		Ten-year historical average annual changes						
		Price[1]	Book Value[2]	EPS[2]	DPS[2]	Average Col 2-4	Value Line Projected EPS Growth	Average of Historical & Proj. Growth
American States Water	AWR		5.50%	12.00%	6.50%	8.00%	6.00%	7.00%
Aqua America	WTR		7.00%	8.50%	8.00%	7.83%	7.00%	7.42%
California Water	CWT		5.50%	5.00%	1.50%	4.00%	6.00%	5.00%
Conn. Water Services	CTWS		6.50%	4.00%	2.00%	4.17%	4.50%	4.33%
Middlesex Water	MSEX		4.50%	5.00%	1.50%	3.67%	3.50%	3.58%
SJW Corp.	SJW		6.00%	6.50%	4.00%	5.50%	1.50%	3.50%
York Water Co.	YORW		6.50%	5.50%	4.00%	5.33%	6.00%	5.67%
Group Average			5.93%	6.64%	3.93%	**5.50%**	**4.93%**	**5.21%**
Overstatement to Estimated Growth Rates from Bourassa Schedule 4-5, as filed:						0.68%	0.43%	0.55%

Source: Value Line Investment Survey (April 15, 2016)

Bourassa Schedule D-4.7 (Page 1) -- As Filed
Discounted Cash Flow Analysis
DCF Constant Growth

Line	Company	Current Dividend Yield (P_0 / D_0)	Expected Dividend Yield (P_1 / D_0)		Value Line Projected EPS Growth (g)		Indicated Cost of Equity (K)
1	American States Water	2.15%	2.28%	+	6.00%	=	8.28%
2	Aqua America	2.66%	2.86%	+	7.50%	=	10.36%
3	California Water	3.05%	3.25%	+	6.50%	=	9.75%
4	Connecticut Water	2.91%	3.04%	+	4.50%	=	7.54%
5	Middlesex Water	3.25%	3.41%	+	5.00%	=	8.41%
6	SJW Corp.	2.55%	2.58%	+	1.50%	=	4.08%
7	York Water	2.92%	3.11%	+	6.50%	=	9.61%
8							
9	AVERAGE	2.78%	2.93%		5.36%		8.29%
	ADJUSTED AVERAGE						8.99%

RUCO Restatement of Bourassa Schedule D-4.7 (Page 1)
Discounted Cash Flow Analysis
DCF Constant Growth
With Updated EPS Growth Metrics from Value Line

Line	Company	Current Dividend Yield (P_0 / D_0)	Expected Dividend Yield (P_1 / D_0)		Value Line Projected EPS Growth (g)		Indicated Cost of Equity (K)
1	American States Water	2.15%	2.28%	+	6.00%	=	8.28%
2	Aqua America	2.25%	2.41%	+	7.00%	=	9.41%
3	California Water	2.47%	2.62%	+	6.00%	=	8.62%
4	Connecticut Water	2.28%	2.38%	+	4.50%	=	6.88%
5	Middlesex Water	2.17%	2.25%	+	3.50%	=	5.75%
6	SJW Corp.	2.35%	2.39%	+	1.50%	=	3.89%
7	York Water	2.10%	2.22%	+	6.00%	=	8.22%
8							
9	AVERAGE	2.25%	2.36%		4.93%		7.29%
10							
11	ADJUSTED AVERAGE						7.86%
12							
13		**Reduction to DCF Indicated Cost of Equity - Sample Average**					**1.00%**
14							
15		**Reduction to DCF Indicated Cost of Equity - Adjusted Average**					**1.13%**

Source: Value Line Investment Survey (April 15, 2016)
Note: The current dividend yield (D_0/P_0) in RUCO's updated restatement reflects (i) the indcated annual dividend based upon the last four quarters, as reported by Value Line, and (ii) the stock price as of the close of market on April 29, 2016, as reported by Yahoo Finance.

Reduction to DCF Indicated COE - Sample Average:

	Bourassa as Filed	8.29%
Less:	RUCO as Adjusted	7.29%
	Overstatement	1.00%

Reduction to DCF Indicated COE - Adjusted Average:

	Bourassa as Filed	8.99%
Less:	RUCO as Adjusted	7.86%
	Overstatement	1.13%

Bourassa Schedule D-4.7 (Page 2) -- As Filed
Discounted Cash Flow Analysis
DCF Constant Growth

Line	Company	Current Dividend Yield (P_0 / D_0)	Expected Dividend Yield (P_1 / D_0)		Average of Historical & Projected Growth (g)		Indicated Cost of Equity (K)
1	American States Water	2.15%	2.35%	+	9.32%	=	11.67%
2	Aqua America	2.66%	2.91%	+	9.58%	=	12.49%
3	California Water	3.05%	3.23%	+	5.84%	=	9.07%
4	Connecticut Water	2.91%	3.10%	+	6.60%	=	9.70%
5	Middlesex Water	3.25%	3.42%	+	5.25%	=	8.67%
6	SJW Corp.	2.55%	2.66%	+	4.30%	=	6.95%
7	York Water	2.92%	3.12%	+	6.65%	=	9.77%
8							
9	AVERAGE	2.78%	2.97%		6.79%		9.76%
10							
11	ADJUSTED AVERAGE						10.23%

RUCO Restatement of Bourassa Schedule D-4.7 (Page 2)
Discounted Cash Flow Analysis
DCF Constant Growth
With Updated EPS Growth Metrics from Value Line

Line	Company	Current Dividend Yield (P_0 / D_0)	Expected Dividend Yield (P_1 / D_0)		Average of Historical & Projected Growth (g)		Indicated Cost of Equity (K)
1	American States Water	2.15%	2.31%	+	7.67%	=	9.98%
2	Aqua America	2.25%	2.43%	+	8.08%	=	10.51%
3	California Water	2.47%	2.59%	+	4.83%	=	7.42%
4	Connecticut Water	2.28%	2.40%	+	5.67%	=	8.07%
5	Middlesex Water	2.17%	2.25%	+	3.42%	=	5.66%
6	SJW Corp.	2.35%	2.46%	+	4.50%	=	6.96%
7	York Water	2.10%	2.21%	+	5.17%	=	7.37%
8							
9	AVERAGE	2.25%	2.38%		5.62%		8.00%
10							
11	ADJUSTED AVERAGE						8.17%
12							
13		**Reduction to DCF Indicated Cost of Equity - Sample Average**					**1.76%**
14							
15		**Reduction to DCF Indicated Cost of Equity - Adjusted Average**					**2.06%**

Source: Value Line Investment Survey (October 16, 2015)
Note: The current dividend yield (D_0/P_0) in RUCO's updated restatement reflects (i) the indcated annual dividend based upon the last four quarters, as reported by Value Line, and (ii) the stock price as of the close of market on April 29, 2016, as reported by Yahoo Finance.

Reduction to DCF Indicated COE - Sample Average:

	Bourassa as Filed	9.76%
Less:	RUCO as Adjusted	8.00%
	Overstatement	1.76%

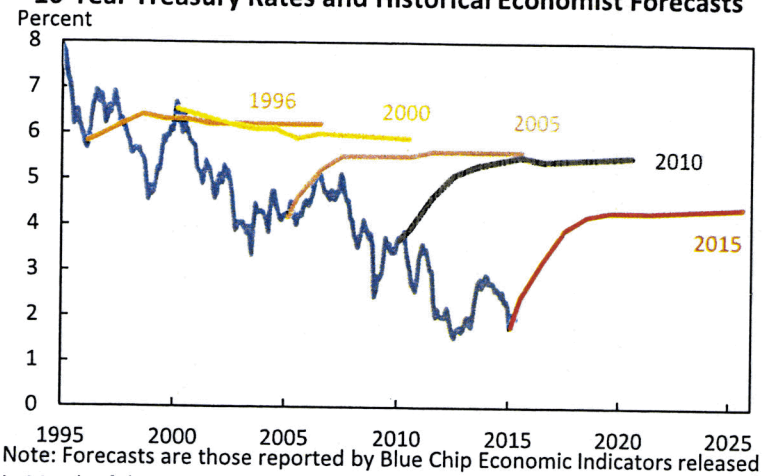
Reduction to DCF Indicated COE - Adjusted Average:

	Bourassa as Filed	10.23%
Less:	RUCO as Adjusted	8.17%
	Overstatement	2.06%

have tended to be inaccurate. Between 1984 and 2012, CBO, private-sector forecasters, and the Administration all systematically overestimated the path of nominal interest rates just two years into the future (CBO 2015a).

Figure 5

10-Year Treasury Rates and Historical Economist Forecasts



Note: Forecasts are those reported by Blue Chip Economic Indicators released in March of the given calendar year, the median of over 50 private-sector economists. Source: Blue Chip Economic Indicators, Aspen Publishers.

A central question in forming a long-run forecast is whether interest rates are statistically stationary—i.e., whether they have a tendency to return to a definite long-run mean value or average. To the extent interest rates are mean-reverting, the historical average may contain the most useful information for projecting the long-run long-term interest rate. On the other hand, if changes in interest rates are permanent (or at least, highly persistent), recent data may contain more useful information about long-run interest rates than historical data. In general, econometric tests suggest that real and nominal interest rates revert to their mean very slowly, with close to unit root (non-stationary)[9] properties.[10] Tests for non-stationarity tend to be weak, however, in that distinguishing between a true unit root and mean reversion with very high persistence is difficult in a finite sample of data (Neely and Rapach 2008).

Economic theory strongly suggests that real interest rates are bounded, if not fully mean reverting (as discussed in more detail in section III).[11] A high return on investment should trigger a reallocation of resources from consumption toward capital accumulation, driving down the marginal product of capital and the real interest rate over time. Similarly, a low return on

[9] A time series is said to contain a unit root if its random changes contain a permanent component. In this case it is statistically non-stationary.

[10] Hamilton et. al. (2015) reject the hypothesis that the real interest rate converges to a fixed constant. The difficulty in predicting the long-run real interest rate leads them to be skeptical of models, like the Ramsey model considered below, that place a strong emphasis on the link between output growth and the real interest rate.

[11] Even when interest rates are mean-reverting, and therefore stationary in the statistical sense, they can be "trend-stationary," reverting to means that evolve deterministically over time rather than being constants. Thus, stationarity of interest rates does not rule out the possibility that they trend upward or downward over long periods as a result of somewhat predictable, secular economic forces.

Bourassa Schedule D-4.11
-- As Filed --

Traditional Capital Asset Pricing Model
Historical and Current Market Risk Premia

		R_f	+	Beta	x	RP_m	=	K
1	Historical Market Risk Premium CAPM	4.1%		0.73		7.00%		9.2%
2	Current Market Risk Premium CAPM	4.1%		0.73		8.93%		10.6%
3	Average CAPM Estimate							9.9%

Bourassa Schedule D-4.11
-- As Adjusted by RUCO --

Traditional Capital Asset Pricing Model
Historical and Current Market Risk Premia

		R_f [1]	+	Beta [2]	x	RP_m [3]	=	K
1	Historical Market Risk Premium CAPM	2.64%		0.71		7.00%		7.64%
2	Current Market Risk Premium CAPM	2.64%		0.71		6.22%		7.09%
3	Average CAPM Estimate							7.37%

[1] Adjustment to reflect the current 3-month average yield (i.e., February - April, 2016) on the 30-year U.S. Treasury bond.
Source: U.S. Department of the Treasury

[2] Adjustment to reflect the updated sample average Beta for Mr. Bourassa's sample group of companies.
Source: Value Line Investment Survey (April 15, 2016)

[3] Adjustment to reflect the current equity risk premium on the S&P 500, updated as of May 1, 2016, by Dr. Aswath Damodaran.
Source: http://pages.stern.nyu.edu/~adamodar/

Overstatement to Bourassa Historical MRP CAPM Cost of Equity	1.57%
Overstatement to Bourassa Current MRP CAPM Cost of Equity	3.53%
Overstatement to Bourassa Average CAPM Cost of Equity	2.55%

LIBERTY UTILITIES (BELLA VISTA WATER) CORP.
LIBERTY UTILITIES (RIO RICO WATER & SEWER) CORP.
DOCKET NO. W-02465A-15-0367, ET AL.
RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

Company Response Number: 4.01

Q. In Direct (p. 36, lines 15-16), Mr. Bourassa states that for purposes of his average historical and forecast dividend growth (g) estimate, he obtains a "5-year historical average growth rate in stock price." As noted in footnote 1 of Schedule D-4.4, Mr. Bourassa further indicates that the 5-year historical stock price growth rates presented in column [1] for each of his sample companies represent "compound growth in stock prices ending December 31 through 2014."

In view of the above, please respond to the following:

(a) Admit that in order to obtain a 5-year (i.e., 60-month) compound average growth rate in stock price for the period ending December 31, 2014, the necessary inputs in the computation are (i) the closing stock price as of December 31, 2014 and (ii) the closing stock price as of December 31, 2009;

(b) Admit that the compound average stock price growth rates presented in column [1] of Schedule D-4.4 are **not** 5-year growth rates, for as shown in Mr. Bourassa's work papers rather than using a closing stock price as of December 31, 2009, for each of his sample companies Mr. Bourassa instead utilizes a closing stock price as of October 30, 2009 in his computations (i.e., growth is measured over a 62-month period);

(c) Admit that because the October 30, 2009 stock price used by Mr. Bourassa in his 5-year growth computations for each sample company are **lower** than the December 31, 2009 closing stock price, the growth rates presented in column [1] of Schedule D-4.4 for each sample company are **overstated**; and

(d) Provide a restatement of Schedule D-4.4 to correct for the above referenced overstatement to the 5-year compound growth rates for each sample company presented in column [1], using a December 31, 2009 closing price.

LIBERTY UTILITIES (BELLA VISTA WATER) CORP.
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DOCKET NO. W-02465A-15-0367, ET AL.
RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

RESPONSE:

(a) Admit.

(b) Admit.

(c) Admit.

(d) The revised growth rate is 13.09 percent. This does not change Mr. Bourassa's recommended cost of equity. This does not change the overall cost of equity for the water proxy group or for either Liberty Utilities (Bella Vista Water) Corp. or Liberty Utilities (Rio Rico Water & Sewer) Corp. See attached.

LIBERTY UTILITIES (BELLA VISTA WATER) CORP.
LIBERTY UTILITIES (RIO RICO WATER & SEWER) CORP.
DOCKET NO. W-02465A-15-0367, ET AL.
RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

Company Response Number: 4.02

Q. As noted in Direct (p. 36, lines 14-18), in addition to historical measures of book value per share, earnings per share and dividends per share, Mr. Bourassa incorporates historical growth in stock price for each of his sample companies as a metric with which to estimate the dividend growth (g) rate in his constant growth DCF models. Please indicate if Mr. Bourassa believes historical stock price growth to be a **determinant** of dividend growth, and if so provide a copy of **all** journal articles, books or published academic studies which support the use of historical stock price growth as a metric to estimate dividend growth in the DCF model.

RESPONSE: Yes, stock price growth should be a determinant under current market circumstances. One of Mr. Bourassa's concerns about the DCF model and its applicability under current market circumstances is that historical price growth has exceeded historical EPS growth (and DPS growth) when the constant growth DCF model assumes, in equilibrium, book values, common stock prices, EPS and DPS all grow at the same rate. See Direct Testimony of Thomas J. Bourassa (Cost of Capital) at 33-37. If investors have bid up stock prices under current market conditions, dividend yields have been bid down and expected future growth rates may not reflect the anticipated higher future prices. In such a situation, application of the constant growth DCF model may produce negatively biased estimates of the cost of equity. As Dr. Morin states in his book New Regulatory Finance "although g has been specified in the model to be the expected growth rate in dividends, it is also implicitly the expected rate of increase in stock price (expected capital gain) as well as the expected growth rate in earnings per share." (p. 256).

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DOCKET NO. W-02465A-15-0367, ET AL.
RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

Company Response Number: 4.03

Q. In Direct (p. 36, lines 18-22) Mr. Bourassa asserts that use of historical growth in stock price as a metric with which to measure the dividend growth (g) component in the DCF model is "reasonable." In view of the above, please respond to the following:

(a) For purposes of estimating the dividend growth (g) rate in the constant growth DCF model, indicate if Mr. Bourassa considers use of 'total return' as a growth metric to be "reasonable;"

(b) If "yes" to (a) above, provide a detailed explanation justifying the use of 'total return' as a growth metric to estimate the dividend growth (g) component, and provide a copy of **all** journal articles, books or published academic studies which support the use of total return as a growth metric in the constant growth DCF model; and

(c) If "no" to (a) above, provide an exhaustive listing as to **all** reasons why use of total return as a growth metric in the constant growth DCF model would be considered "unreasonable."

RESPONSE:

(a) No.

(b) Mr. Bourassa does not use total return for the growth rate. He uses the growth in the stock price itself.

(c) See the response to Data Request 4.02.

LIBERTY UTILITIES (BELLA VISTA WATER) CORP.
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DOCKET NO. W-02465A-15-0367, ET AL.
RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

Company Response Number: 4.04

Q. As noted in footnote 1 of Schedules D-4.4 and D-4.5, the data used by Mr. Bourassa in his stock price growth calculations presented in column [1] was obtained from the Yahoo Finance website. In reviewing the work papers supporting Schedules D-4.4 and D-4.5, RUCO determined that for each of his sample companies Mr. Bourassa's 5- and 10-year stock price growth rates were computed using **adjusted closing price** as reported by Yahoo Finance, and not **actual closing price**. In view of the above, please respond to the following:

(a) Admit that adjusted closing prices provided by Yahoo Finance represent a stock's closing price adjusted for both "**dividends and splits**,"

(b) Admit that because Yahoo Finance adjusted closing prices have been adjusted for both "dividends and splits," a compound growth computation using such adjusted closing prices generates a measure of a stock's **total return**, as the compound growth rate obtained includes both (i) an income component (i.e., dividend income) and (ii) a price appreciation component (i.e., stock price growth);

(c) Admit that in order to compute 5-year compound stock price growth rates for each of his sample companies for the period ending December 31, 2014, Mr. Bourassa should have used as inputs in the computation the **actual closing stock price**, adjusted for stock splits, as of (i) December 31, 2009 and (ii) December 31, 2014;

(d) Admit that in order to compute 10-year compound stock price growth rates for each of his sample companies for the period ending December 31, 2014, Mr. Bourassa should have used as inputs in the computation the **actual closing stock price**, adjusted for stock splits, as of (i) December 31, 2004 and (ii) December 31, 2014; and

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DOCKET NO. W-02465A-15-0367, ET AL.
RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S
FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

(e) Admit that the compound growth rates presented in column [1] of Schedules D-4.4 and D-4.5 are **overstated**, as they represent measures of **compound growth in total return** for each of his sample companies over a 5- and 10-year period, respectively, and **not compound growth in stock price**.

RESPONSE:

(a) Admit.

(b) Deny. The change in stock price from Yahoo does not take into account the reinvestment of dividends which would be required in total return computation.

(c) Deny.

(d) Deny.

(e) Deny.

LIBERTY UTILITIES (BELLA VISTA WATER) CORP.
LIBERTY UTILITIES (RIO RICO WATER & SEWER) CORP.
DOCKET NO. W-02465A-15-0367, ET AL.
RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

Company Response Number: 4.05

Q. Indicate if Mr. Bourassa agrees with the proposition that for dividend paying stocks, compound growth in total return will **exceed** compound growth in stock price appreciation. To the extent Mr. Bourassa disagrees with this proposition, provide a detailed explanation as to the reasons for his disagreement and provide a copy of **all** journal articles, books or published academic studies which support his position.

RESPONSE: Mr. Bourassa does not agree. Total return will typically not exceed the growth in the stock price. This is because total returns takes into account reinvested dividend and dividends are typically paid quarterly. The return from reinvested dividends is based upon when the dividends are reinvested and the movement in the stock price from the dividend reinvestment date forward. The attached schedule demonstrates that the growth in the stock price exceeds total return.

Response to RUCO DR. 4.05
Stock Price Growth versus Total Return

	A	B	C	D	E	F	G	H	I	J	K	L	M
End of Month	Adjusted Stock Price	% Change	Dividend Reinvested	% Change	Dividend Reinvested	% Change	Dividend Reinvested	% Change	Dividend Reinvested	% Change	# Shares Owned	Investment at Cost	Investment at Current MV
Dec. 2013	27.4872										1.0000	27.4872	27.4872
Jan. 2014	27.1715	-1.15%									1.0000	27.4872	27.1715
Feb.	28.9409	6.51%	0.2130	0.00%							1.0074	27.7002	29.1539
Mar.	31.1190	7.53%	0.2290	7.53%							1.0074	27.7002	31.3480
Apr.	29.2590	-5.98%	0.2153	-5.98%							1.0074	27.7002	29.4743
May	29.3874	0.44%	0.2163	0.44%	0.2130	0.00%					1.0146	27.9132	29.8167
Jun	32.2505	9.74%	0.2374	9.74%	0.2338	9.74%					1.0146	27.9132	32.7216
Jul	29.6495	-8.07%	0.2182	-8.07%	0.2149	-8.07%					1.0146	27.9132	30.0826
Aug	31.5661	6.46%	0.2323	6.46%	0.2288	6.46%	0.2240	0.00%			1.0217	28.1372	32.2512
Sep	29.7288	-5.82%	0.2188	-5.82%	0.2155	-5.82%	0.2110	-5.82%			1.0217	28.1372	30.3741
Oct	34.9670	17.62%	0.2574	17.62%	0.2534	17.62%	0.2481	17.62%			1.0217	28.1372	35.7260
Nov	34.3059	-1.89%	0.2525	-1.89%	0.2486	-1.89%	0.2434	-1.89%	0.2240	0.00%	1.0282	28.3612	35.2745
Dec. 2014	37.0295	7.94%	0.2725	7.94%	0.2684	7.94%	0.2628	7.94%	0.2418	7.94%	1.0282	28.3612	38.0750
Growth		34.72%		27.95%		26.00%		17.31%		7.94%		Total Return	34.25%
												(Dec.Col.M -Dec Col.L)/Dec. Col.L)	

LIBERTY UTILITIES (BELLA VISTA WATER) CORP.
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DOCKET NO. W-02465A-15-0367, ET AL.
RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

Company Response Number: 4.06

Q. Presented below are the 5- and 10-year compound annual stock price growth rates for Mr. Bourassa's sample companies, computed using Yahoo Finance adjusted closing prices, as presented in Column [1] of Schedules D-4.4 and D-4.5, respectively. Additionally, also presented below are the 5-and 10-year compound growth rates in total return for Mr. Bourassa's sample companies, obtained from Value Line Analyzer and as presented in his work papers (Worksheet: "VL_water;" Range: FF18:FG27).

	5-Year Stock Price Growth As Presented in Schedule D-4.4 Column [1]	5-Year Total Return Value Line Analyzer (Bourassa Work papers, "VL_water" Worksheet)
American States Water	21.56 %	21.66 %
Aqua America	20.11 %	13.10 %
California Water	9.74 %	6.98 %
Connecticut Water	14.28 %	12.36 %
Middlesex Water	13.00 %	11.31 %
SJW Corp.	11.37 %	7.48 %
York Water	14.22 %	8.51 %
Average	14.90 %	11.63 %

	10-Year Stock Price Growth As Presented in Schedule D-4.5 Column [1]	10-Year Total Return Value Line Analyzer (Bourassa Workpapers, "VL_water" Worksheet)
American States Water	14.46 %	12.57 %
Aqua America	8.84 %	4.13 %
California Water	5.99 %	3.91 %
Connecticut Water	6.91 %	7.67 %
Middlesex Water	5.94 %	4.48 %
SJW Corp.	8.61 %	5.12 %
York Water	9.29 %	5.05 %
Average	8.58 %	6.13 %

LIBERTY UTILITIES (BELLA VISTA WATER) CORP.
LIBERTY UTILITIES (RIO RICO WATER & SEWER) CORP.
DOCKET NO. W-02465A-15-0367, ET AL.
RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

In light of the above, please respond to the following:

(a) Provide a plausible explanation as to how it is possible for compound annual stock price growth to **exceed** compound annual total return growth for Mr. Bourassa's sample companies over both a 5- and 10-year period, and

(b) Pursuant to the request made in RUCO 4.01(d), provide an updated schedule comparing the restated compound 5-year stock price growth rates shown in column [1] of Schedule D-4.4 with the 5-year total return growth rates obtained from Value Line Analyzer as presented in Mr. Bourassa's work papers. To the extent that **any** of the restated 5-year stock price growth rates continue to exceed the 5-year total return growth rates obtained from Value Line Analyzer, provide a plausible explanation as to how that is possible.

RESPONSE:

(a) Please see the response to Data Request 4.05.

(b) Please see the response to Data Request 4.05.

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RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

Company Response Number: 4.07

Q. As noted in Direct (p. 39, lines 7-9), the equity risk premium employed by Mr. Bourassa in his Risk Premium Model ("RPM") represents the bond-equity spread difference between the average total realized market return of his proxy group of water companies and the average annual long-term treasury yields over the 16-year period, 1999-2014. Mr. Bourassa presents his RPM findings in Schedule D-4.9, and as shown in footnote 1 of that schedule, states that the annual total return figures for his sample companies were computed using data from Value Line Analyzer software. RUCO has reviewed Mr. Bourassa's cost of capital work papers relating to Schedule D-4.9, but is unable to reconcile his total return figure calculations for the following reasons:

(i) With the exception of the total return figure reported for 2014 (i.e., 14.98%), **all other total return figures** presented in Schedule D-4.9 for the 16-year period, 1999-2014, have been **hardcoded** into the spreadsheet;

(ii) The total return figure presented in Schedule D-4.9 for the year 2014 is linked to a separate worksheet in the work papers ("VL_water;" cell FH27); however, a review of the total return values shown in cell range FH5:FQ27 of the "VL_water" worksheet indicate that total return values are provided **only for the 10-year period, 2005-2014**, and that these values, likewise, have been **hardcoded** into the spreadsheet;

(iii) The "VL_water" worksheet contains **no support** for Mr. Bourassa's annual total return figures reported **for the 6-year period, 1999-2004** (not even hardcoded total return values are provided).

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RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

In light of the above, please provide the following:

(a) An explanation why Mr. Bourassa's work papers supporting Schedule D-4.9 contain **no support** for the annual total return figures for his proxy group for the 6-year period, 1999-2004,

(b) A spreadsheet containing **all data inputs** necessary to compute annual total return values for each of his seven sample companies over the 16-year period, 1999-2014, and

(c) A schedule, in Excel format with formulae intact, showing the **computational methodology** (i.e., arithmetic mean or geometric mean) **employed by Mr. Bourassa in arriving at the annual total return values reported in Schedule D-4.9 for the period, 1999-2014.**

RESPONSE:

(a) Mr. Bourassa does not compute the total return for each company. The data is provided by Value Line.

(b) See the response to subpart (a).

(c) See the response to subpart (a). Value Line defines the 5-year annual total return as the capital gain or loss for the stock price plus the dividends reinvested at month end for the past 60 months, expressed as a percentage (from Value Line Analyzer Software Help).

LIBERTY UTILITIES (BELLA VISTA WATER) CORP.
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DOCKET NO. W-02465A-15-0367, ET AL.
RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

Company Response Number: 4.08

Q. As noted above, the "VL_water" worksheet in Mr. Bourassa's work papers contains **no support** for the annual total return figures reported in Schedule D-4.9 for the 6-year period, 1999-2004. Furthermore, a review of the most recent *Value Line Investment Survey* update for the water utility industry (dated January 15,2016) indicates that **detailed information** is provided for each publicly-traded water company in Mr. Bourassa's proxy group only for the 10-year historical period, 2005-2014. Lastly, as shown in footnote 2 of Schedules D-4.4 and D-4.5, the Value Line Analyzer service Mr. Bourassa relies upon appears to be updated on a weekly basis. In view of the above, please respond to the following:

(a) Indicate if the Value Line Analyzer service, when updated on a weekly basis, provides detailed information for each of Mr. Bourassa's sample companies (i) only for the most recent 10-year historical period (i.e., 2005-2014), or (ii) does it provide detailed information relating to historical periods preceding 2005, as well; and\

(b) To the extent the Value Line Analyzer service, when updated on a weekly basis, provides detailed information for years prior to 2005, explain why Mr. Bourassa's work papers provide **no support** for the total returns reported in Schedule D-4.9 for the six year period, 1999-2004.

RESPONSE:

(a) Yes and no. Value Line provides the individual year data for the recent preceding 10 years at the time of the download. For example, at the time of Mr. Bourassa's analysis (October 2015), Value Line provided total return data by

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RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S
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Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

year from 2005 to 2014. The data prior to 2005 was obtained from a previous download of the Value Line data. For example, a download from 2008 provided data provided the total return data from 1999 to 2008.

(b) Mr. Bourassa does not compute the total returns reported by Value Line. Attached is a Value Line download from 2008 which shows the total returns from 1999-2008.

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RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

Company Response Number: 4.09

Q. Please explain the rationale behind Mr. Bourassa's choice of the 16-year period, 1999-2014, used to obtain the equity risk premium in his RPM analysis.

RESPONSE: Mr. Bourassa attempted to use the longest period possible based upon the available Value Line data.

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RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

Company Response Number: 4.10

Q. Schedule D-4.9 presents Mr. Bourassa's Risk Premium analysis based on total returns for the 16-year period, 1999-2014. As shown, both the **highest** annual total return (26.28%) and the **highest** annual risk premium (20.41%) for Mr. Bourassa's sample companies were obtained in 1999, the first year of his analysis. In light of the above, please respond to the following:

(a) Admit that as shown in Mr. Bourassa's work papers, in 1999 investors holding common shares of SJW Corp. stock experienced an annual total return on investment of **111.33 percent** (See "PriceGrowth" worksheet, Cell: W25);

(b) Admit that the high 1999 sample average annual total return and annual risk premium RPM results presented in Schedule D-4.9 have been significantly skewed upward as a consequence of the above referenced 111.33 percent total return experienced by SJW Corp. in 1999; and

(c) Admit that as shown in Mr. Bourassa's work papers, the RPM results obtained for 1999 do **not** include market data for York Water (See "PriceGrowth" worksheet, Cell: Z25).

RESPONSE:

(a) Admit.

(b) Deny. Mr. Bourassa admits that the exclusion of the 1999 SJW results would have impacted the results for 1999 and the overall results for the period 1999-2015 would have been lower by exclusion of this one return. However, Mr. Bourassa does not believe in cherry-picking results from year-to-year. Notably, excluding the negative returns for Aqua America (WTR) of a negative 27.88% in 1999 would not have significantly changed Mr. Bourassa's overall results.

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Title: Rate Consultant

Address: 139 W. Wood Drive
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(c) Admit. There was no available Value Line data for SJW in 1999. Had Mr. Bourassa excluded the assumed 0 percent return, the results for 1999 would have increased to 30.66 percent rather than the 26.28 percent.

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RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

Company Response Number: 4.11

Q. When explaining his RPM methodology in Direct (p. 38, lines 17-22), Mr. Bourassa makes the following two statements:

(i) "To implement the RPM, it is assumed that the past relationship will continue into the future," and

(ii) "The RPM is widely used by analysts and investors."

In light of the above, please respond to the following:

(a) Admit that the 111.33 percent annual total return achieved by SJW Corp. in 1999 was an abberation and did **not** continue into the future, as the highest annual total returns achieved by the other sample companies over the 16-year period, 1999-2014 were as follows:

	Highest Total Return	Year
American States Water	41.84%	2012
Aqua America	53.14%	2000
California Water	42.92%	2004
Connecticut Water	49.71%	2001
Middlesex Water	38.41%	1999
York Water	60.32%	2002

(b) Indicate if a "rational investor" would consider the 111.33 percent total return achieved by SJW Corp. in 1999 to be representative of total returns to be expected of publicly traded water utility companies in the future?

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RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

RESPONSE:

(a) Deny. Mr. Bourassa doesn't consider the total return achieved in 1999 for SJW as an aberration but rather one of the 16 annual total returns for SJW. Nor does Mr. Bourassa's analysis assume the 1999 total return for SJW continues out into the future just as he does not consider the negative 27.88 return in 1999 for Aqua America (WTR) as an aberration or that it continues out into the future. This is true for any of the reported 1999 total returns. Mr. Bourassa's analysis considers multiple years (16 years) which include both positive and negative total returns for SJW as well as the other proxy group utilities.

(b) For an RPM analysis, a rational investor would look at multiple years as Mr. Bourassa has done, not one single year. Further, Mr. Bourassa analysis does not assume that a 111.33 percent total return will continue out into the future for SJW. His analysis considers multiple years (16 years) which include both positive and negative total returns. Further, his analysis does not rest on a single publicly traded utility, but rather the multiple publicly traded utilities his sample group.

LIBERTY UTILITIES (BELLA VISTA WATER) CORP.
LIBERTY UTILITIES (RIO RICO WATER & SEWER) CORP.
DOCKET NO. W-02465A-15-0367, ET AL.
RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Liberty Utilities (Bella Vista Water) Corp.
Liberty Utilities (Rio Rico Water & Sewer) Corp.

Address: 12725 W. Indian School Road, Suite D-101
Phoenix, AZ 85392

Company Response Number: 4.12

Q. As contemplated in the Company's filing, the Company seeks authority to effectuate a rebalancing of its its capital structure for both (i) Liberty Utilities (Bella Vista Water) Corp. and (ii) Liberty Utilities (Rio Rico Water/Wastewater) Corp. As shown in Schedules D-1 and D-2, as of the December 31, 2014 test year end Bella Vista had two (2) Water Infrastructure Financing Authority of Arizona ("WIFA") loans in its capital structure while Rio Rico had no debt in its capital structure. As shown, the weighted cost of the existing Bella Vista debt is 6.25 percent. However, for both companies the end of projected year cost of debt in Schedules D-1 and D-2 is shown to be 3.47 percent. In light of the above, please respond to the following:

a) Indicate the maturity date(s) of the two WIFA loans in the Bella Vista capital structure;
b) To the extent that the two WIFA loans in the Bella Vista capital structure are scheduled to mature after December 31, 2016, indicate if Liberty Utilities plans to use a portion of the proceeds from the requested debt authorization to pay down the existing 6.25 percent WIFA loan debt prior to maturity with newly obtained low cost debt; and
c) If "no" to (b) above, explain how it is possible that the projected cost of debt for both Bella Vista and Rio Rico could be identical (i.e., 3.47 percent).

RESPONSE:

a) WIFA 1 will mature 12/1/2018 and WIFA 2 will mature 1/1/2021.

b) Yes, the Company plans to pre pay the WIFA loans.

LIBERTY UTILITIES (BELLA VISTA WATER) CORP.
LIBERTY UTILITIES (RIO RICO WATER & SEWER) CORP.
DOCKET NO. W-02465A-15-0367, ET AL.
RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 12, 2016

Respondent: Thomas J. Bourassa, CPA

Title: Rate Consultant

Address: 139 W. Wood Drive
Phoenix, AZ 85029

Company Response Number: 4.13

Q. As noted above, the interest rate on the Company's proposed debt is shown to be 3.47 percent in Schedules D-1 and D-2 for both Bella Vista and Rio Rico. However, as shown in the term sheet (Exhibit 3) provided in the Company's financing application, the interest rate associated with the proposed 10-year term, unsecured, non-amortizing debt is estimated to be 3.32 percent. Please provide an explanation for this discrepancy in the Company's filing.

RESPONSE: At the time the rate application was prepared, the spread between the indicative 10-year private placing of Liberty and the 10-year treasury was estimated to be 130 basis points. The Company used a 10-year average monthly yield of 2.17 from August 2008 as a proxy. Therefore, the Company used a 3.47 percent interest rate (2.17 + 1.3). When the financing application was prepared, the 10-year decreased to 2.07 (Feb 2016) which means that using the 130 basis point spread the interest rate would have dropped to 3.37 percent (2.07 + 1.3). But the estimated spread was assumed to have also decreased to 1.25 percent which is how Liberty Bella Vista and Liberty Rio Rico came up with 3.32 percent (2.07 + 1.25). The 10-year treasury is a moving target and by the time the case is done, the 10-year treasury yield may be much higher than 2.07 percent. The 3.47 is a reasonable proxy at this time but may change based what happens in 7 months when the case is decided.

LIBERTY UTILITIES (BELLA VISTA WATER) CORP.
LIBERTY UTILITIES (RIO RICO WATER & SEWER) CORP.
DOCKET NO. W-02465A-15-0367, ET AL.
RESPONSE TO RESIDENTIAL UTILITY CONSUMER OFFICE'S FOURTH SET OF DATA REQUESTS

April 13, 2016

Respondent: Liberty Utilities (Bella Vista Water) Corp.
Liberty Utilities (Rio Rico Water & Sewer) Corp.

Address: 12725 W. Indian School Road, Suite D-101
Phoenix, AZ 85392

Company Response Number: 4.14

Q. As noted in the Company's financing application, Liberty Utilities will provide the subject financing at a fixed rate per annum equal to the average 10-year U.S. Treasury rate as published on Bloomberg Financial Markets for the prior 30 days, plus an interest rate spread equal to the indicative 10-year spread on Liberty Utilities' most recent private placement financing. Please (i) quantify the "indicative 10-year spread on Liberty Utilities' most recent private placement financing," and (ii) provide an example to illustrate what the proposed cost of debt might be based upon the most recent 30-day average on the 10-year U.S. Treasury rate as reported by Bloomberg Financial Markets.

RESPONSE:

(i) The 10-year indicative spread noted on the recent private placement financing was 1.16 percent.

(ii) As of April 12, 2016, the 30 day average on the 10-year U.S. Treasury rate was approximately 1.85 percent. As a result, should an intercompany note be issued today, the coupon rate would be approximately 3.00 percent equivalent to 1.85 percent 30 day average on 10-year US Treasuries + 1.16 percent spread.