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BEFORE THE ARIZONA CORPORATION COMMISSION

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2013 JUN 26 PM 3 08

COMMISSIONERS

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

IN THE MATTER OF THE APPLICATION OF
NEW RIVER UTILITY COMPANY FOR A
DETERMINATION OF THE FAIR VALUE OF
ITS UTILITY PLANT AND PROPERTY AND
FOR INCREASES IN ITS WATER RATES
AND CHARGES FOR UTILITY SERVICE
BASED THEREON.

DOCKET NO. W-01737A-12-0478

**STAFF'S NOTICE OF FILING DIRECT
TESTIMONY**

Staff of the Arizona Corporation Commission ("Staff") hereby files the Direct Testimony of
Crystal S. Brown, Marlin Scott, Jr., and John A. Cassidy in the above docket.

RESPECTFULLY SUBMITTED this 26th day of June 2013.

Brian E. Smith, Attorney
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Legal Division
Arizona Corporation Commission
1200 West Washington Street
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Original and thirteen (13) copies
of the foregoing filed this
26th day of June 2013 with:

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

Arizona Corporation Commission
DOCKETED

JUN 26 2013

DOCKETED BY

1 Copy of the foregoing mailed this
26th day of June 2013 to:

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BEFORE THE ARIZONA CORPORATION COMMISSION

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

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. W-01737A-12-0478
NEW RIVER UTILITY COMPANY, AN)
ARIZONA CORPORATION, FOR A)
DETERMINATION OF THE FAIR VALUE)
OF ITS UTILITY PLANT AND PROPERTY)
AND FOR INCREASES IN ITS WATER RATES)
AND CHARGES FOR UTILITY SERVICE BASED)
THEREON.)
_____)

DIRECT
TESTIMONY
OF
CRYSTAL S. BROWN
PUBLIC UTILITIES ANALYST V
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

JUNE 26, 2013

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**EXECUTIVE SUMMARY
NEW RIVER UTILITY COMPANY
DOCKET NO. W-01737A-12-0478**

New River Utility Company ("New River" or "Company") is an Arizona "S" corporation engaged in the business of providing water utility services to approximately 2,900 customers. The Company operates a water system in the city of Peoria which is located in Maricopa County, Arizona. New River's current rates were approved in Decision No. 65134, dated August 22, 2002.

The Company proposes a \$1,087,449, or 86.28 percent revenue increase from \$1,260,428 to \$2,347,877. The proposed revenue increase would produce an operating income of \$681,210 for an 8.72 percent rate of return on a fair value rate base ("FVRB") of \$7,812,036. The Company's proposed rates would increase the typical residential 5/8 x 3/4-inch meter bill with a median usage of 8,762 gallons from \$18.01 to \$30.69, for an increase of \$12.67 or 70.34 percent.

Staff recommends a \$319,717 or 25.37 percent revenue increase from \$1,260,428 to \$1,580,145. Staff's recommended revenue increase would produce an operating income of \$459,182 for a 7.60 percent rate of return on a Staff adjusted FVRB of \$6,041,863 as shown on Schedule CSB-1. Staff's recommended rates would increase the typical residential 5/8 x 3/4-inch meter bill with a median usage of 8,762 gallons from \$18.01 to \$23.52, for an increase of \$5.51 or 30.58 percent.

1 **INTRODUCTION**

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

3 A. My name is Crystal S. Brown. I am a Public Utilities Analyst V employed by the Arizona
4 Corporation Commission (“Commission”) in the Utilities Division (“Staff”). My business
5 address is 1200 West Washington Street, Phoenix, Arizona 85007.

6
7 **Q. Briefly describe your responsibilities as a Public Utilities Analyst V.**

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

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

15 A. I received a Bachelor of Science Degree in Business Administration from the University
16 of Arizona and a Bachelor of Science Degree in Accounting from Arizona State
17 University.

18
19 Since joining the Commission in August 1996, I have participated in numerous rate cases
20 and other regulatory proceedings involving electric, gas, water, and wastewater utilities. I
21 have testified on matters involving regulatory accounting and auditing. Additionally, I
22 have attended utility-related seminars sponsored by the National Association of
23 Regulatory Utility Commissioners (“NARUC”) on ratemaking and accounting designed to
24 provide continuing and updated education in these areas.

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

2 A. I am presenting Staff's analysis and recommendations in the areas of rate base and
3 operating revenues, expenses, and rate design regarding the New River Utility Company
4 ("New River" or "Company") application for a permanent rate increase. Staff witness,
5 John Cassidy, is presenting Staff's cost of capital recommendations. Staff witness, Marlin
6 Scott, Jr., is presenting Staff's engineering analysis and recommendations.
7

8 **Q. What is the basis of your recommendations?**

9 A. I performed a regulatory audit of the Company's application to determine whether
10 sufficient, relevant, and reliable evidence exists to support the Company's requested rate
11 increase. The regulatory audit consisted of examining and testing the financial
12 information, accounting records, and other supporting documentation and verifying that
13 the accounting principles applied were in accordance with the Commission-adopted
14 NARUC Uniform System of Accounts ("USoA").
15

16 **BACKGROUND**

17 **Q. Please provide a brief description of New River and the service it provides.**

18 A. New River is an Arizona "S" corporation engaged in the business of providing water
19 utility services to approximately 2,900 customers. The Company operates a water system
20 in the city of Peoria which is located in Maricopa County, Arizona. New River's current
21 rates were approved in Decision No. 65134, dated August 22, 2002.
22

23 **Q. What are the primary reasons for New River's requested permanent rate increase?**

24 A. According to New River, the primary reason is to recover its operating expenses and to
25 earn a just and reasonable rate of return.

1 **CONSUMER SERVICE**

2 **Q. Please provide a brief history of customer complaints received by the Commission**
3 **regarding New River.**

4 A. Staff reviewed the Commission's records and found that, for the year 2010, there were
5 two complaints regarding quality of service and billing; for the year 2011, there were four
6 complaints regarding quality of service and disconnection; for the year 2012, there were
7 no complaints; and for the year 2013 there was one complaint regarding water quality. All
8 complaints have been resolved and closed.

9
10 **COMPLIANCE**

11 **Q. Please provide a summary of the compliance status of New River.**

12 A. A check of the Compliance database indicates that there are currently no delinquencies for
13 New River.

14
15 **SUMMARY OF PROPOSED REVENUES**

16 **Q. Please summarize the Company's filing.**

17 A. The Company proposes a \$1,087,449, or 86.28 percent revenue increase from \$1,260,428
18 to \$2,347,877. The proposed revenue increase would produce an operating income of
19 \$681,210 for an 8.72 percent rate of return on a fair value rate base ("FVRB") of
20 \$7,812,036. The Company's proposed rates would increase the typical residential 5/8 x
21 3/4-inch meter bill with a median usage of 8,762 gallons from \$18.01 to \$30.69, for an
22 increase of \$12.67 or 70.34 percent.

23
24 **Q. Please summarize Staff's recommended revenue.**

25 A. Staff recommends a \$319,717 or 25.37 percent revenue increase from \$1,260,428 to
26 \$1,580,145. Staff's recommended revenue increase would produce an operating income

1 of \$459,182 for a 7.60 percent rate of return on a Staff adjusted FVRB of \$6,041,863 as
2 shown on Schedule CSB-1. Staff's recommended rates would increase the typical
3 residential 5/8 x 3/4-inch meter bill with a median usage of 8,762 gallons from \$18.01 to
4 \$23.52, for an increase of \$5.51 or 30.58 percent.

5
6 **Q. What test year did New River utilize in this filing?**

7 A. New River's test year is based on the twelve months ended December 31, 2011.
8

9 **Q. Please summarize Staff's rate base adjustments for New River.**

10 A. All of Staff's adjustments are made to both the original cost ("OC") and reconstruction
11 cost new ("RCN") rate bases with the exception of \$84,633 of plant that the Company
12 recognized in its original cost rate base but not in its RCN rate base. Staff's adjustment
13 reflected this amount in the RCN rate base to correct the Company's error. My testimony
14 discusses the following rate base adjustments.

15
16 **Rate Base Adjustments**

17 Post-Test Year Plant – This adjustment reflects plant that was placed in service after the
18 test year; was not constructed for growth; and is revenue neutral. The adjustment
19 increases both OC and RCN plant in service by \$84,115.

20
21 Inadequately Supported Plant Costs – This adjustment removes recorded plant costs that
22 were not adequately supported by invoices or other types of source documentation. The
23 adjustment decreases OC plant in service by \$222,346 and RCN plant in service by
24 \$307,365.
25

1 Unrecorded Plant – This adjustment reflects plant that was used and useful but was not
2 recorded on the Company’s books and records. The adjustment increases OC plant in
3 service by \$787,955 and RCN plant in service by \$1,212,607.

4
5 Expensed Plant Costs, Plant In Service – This adjustment reflects plant that the Company
6 expensed when purchased rather than capitalized and depreciated. This adjustment
7 increases both OC and RCN plant in service by \$18,236.

8
9 Other Tangible Plant Reclassification – This adjustment reclassifies \$26,239 from
10 Account No. 348, Other Tangible Equipment to Account No. 311, Pumping Equipment,
11 for both the OC and RCN plant in service. The adjustment was made in order to ensure
12 that the cost will be depreciated using the correct depreciation rate.

13
14 Plant Retirements – This adjustment reflects the removal of plant that is no longer in
15 service. The adjustment decreases OC plant in service by \$103,695 and RCN plant in
16 service by \$111,535.

17
18 Accumulated Depreciation – This adjustment reflects Staff’s calculation of accumulated
19 depreciation based on Staff’s adjustments to plant. The adjustment decreases OC
20 accumulated depreciation by \$41,562 and RCN accumulated depreciation by \$12,007.

21
22 Contributions In Aid of Construction (“CIAC”) – This adjustment reflects unrecorded
23 CIAC. The adjustment increases OC CIAC by \$1,950,080 and RCN CIAC by
24 \$4,347,289.

1 Amortization of CIAC – This adjustment reflects the amortization of CIAC on the Staff-
2 recommended CIAC additions. The adjustment increases OC accumulated amortization
3 of CIAC by \$501,447 and RCN accumulated amortization of CIAC by \$935,231
4

5 Cash Working Capital Allowance – This adjustment decreases both the OC and RCN rate
6 bases by \$96,775 to eliminate the Cooperative’s selective recognition of a working capital
7 component that only increases rate base.
8

9 **Q. Please summarize Staff’s operating income adjustments for New River.**

10 A. My testimony discusses the following operating income adjustments:
11

12 **Operating Income Adjustments**

13 Employee Pensions and Benefits– Operating income adjustment no. 1 increases this
14 expense account by \$14,400. It reclassifies \$14,400 in expenses from the Contractual
15 Services- Management Fees account to the Employee Pensions and Benefits account to
16 reflect the proper classification of housing benefits that were provided to an employee.
17

18 Chemicals – Operating income adjustment no. 2 decreases this expense account by
19 \$11,957. It reclassifies \$11,957 from the Chemicals account to the Contractual Services-
20 Other account to reflect the proper classification of costs incurred for the services of a
21 certified operator.
22

23 Repairs and Maintenance Expense – Operating income adjustment no. 3 decreases this
24 expense account by \$56,274. It removes \$24,474 in unsupported credit card purchases;
25 removes \$31,333 in tank painting costs that the Company has not yet incurred; adds
26 \$15,000 to provide for a normalized level of arsenic media replacement cost; and

1 reclassifies \$15,466 incurred for office supplies from the Repairs and Maintenance
2 account to the Office Supplies Expense account.

3
4 Office Supplies Expense – Operating income adjustment no. 4 increases this expense
5 account by \$15,466. It reclassifies costs incurred for offices supplies from the Repairs and
6 Maintenance account to the Office Supplies Expense account.

7
8 Contractual Services, Accounting – Operating income adjustment no. 5 decreases this
9 expense account by \$2,423 to remove costs incurred for the preparation of the Company's
10 bill counts for the instant rate application. Staff did not reclassify the amount to rate case
11 expense as the Company's proposed and Staff's recommended total rate case expense of
12 \$150,000 is sufficient to reimburse the Company for the \$2,423 amount paid.

13
14 Contractual Services, Legal – Operating income adjustment no. 6 decreases this expense
15 account by \$16,231. It removes \$2,424 in legal costs that belonged to the owner and/or
16 affiliate that were incorrectly charged to New River; removes \$1,716 in unsupported legal
17 costs; reflects a three year normalization of \$11,152 in legal costs related to a payment
18 dispute and related to the title to a well; and capitalizes \$4,656 in legal costs related to the
19 interconnect PTY plant.

20
21 Contractual Services, Management Fees – Operating income adjustment no. 7 decreases
22 this expense account by \$75,000. It reclassifies \$14,400 incurred for employee housing
23 expenses from the Contractual Services- Management Fees account to the Employee
24 Pensions and Benefits account; and reclassifies \$60,600 in costs for renting office and
25 workshop space from the Contractual Services- Management Fees account to the Rent-
26 Buildings account.

1 Contractual Services, Water Testing – Operating income adjustment no. 8 increases this
2 expense account by \$10,636 to reflect Staff's recommended annual water testing costs.

3
4 Contractual Services, Other – Operating income adjustment no. 9 decreases this expense
5 account by \$41,768. It reclassifies \$11,957 incurred for the services of a certified operator
6 from the Chemicals account to the Contractual Services- Other account; reclassifies
7 \$47,950 in water testing costs from the Contractual Services- Other account to the
8 Contractual Services- Water Testing account; and removes \$5,775 in costs incurred for an
9 affiliate.

10
11 Rents - Building – Operating income adjustment no. 10 increases this expense account by
12 a net \$26,580. It reflects Staff's calculation of the annual Rents-Building expense paid for
13 the rental of office and workshop space in the owner's building.

14
15 Rents – Equipment (Vehicles) – Operating income adjustment no. 11 decreases this
16 expense account by \$13,164 to reflect Staff's analysis of New River's cost to rent vehicles
17 from the owner and to reflect that one truck rental is excessive and not needed in the
18 provision of service.

19
20 Transportation Expense – Operating income adjustment no. 12 decreases this expense
21 account by \$13,329. Staff removed \$2,797 of transportation expense related to a truck
22 rental that Staff determined was excessive and not needed in the provision of service;
23 removed \$4,020 for costs of an affiliate that were incorrectly charged to New River; and
24 capitalized \$6,512 for an engine that was rebuilt.

25

1 Bad Debt Expense – Operating income adjustment no. 13 decreases this expense account
2 by \$5,125 to reflect a normalized level of bad debt expense.

3
4 Miscellaneous Expense – Operating income adjustment no. 14 decreases this expense
5 account by \$16,790 to remove costs that are not needed in the provision of service.

6
7 Depreciation Expense – Operating income adjustment no. 15 decreases this expense
8 account by \$186,934 to reflect Staff's calculation of depreciation expense using Staff's
9 recommended depreciation rates and Staff's recommended plant and CIAC balances.

10
11 Income Tax Expense – Operating income adjustment no. 16 increases this expense
12 account by \$104,730 to reflect an income tax allowance on Staff's adjusted test year
13 taxable income.

14
15 Interest Expense on Customer Deposits – Operating income adjustment no. 16 increases
16 this expense account by \$1,367 to provide for interest on customer deposits.

17
18 **RATE BASE**

19 **Fair Value Rate Base**

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

22 **A. Yes, the Company prepared schedules showing the elements of reconstruction cost new**
23 **rate base. The Company is proposing a fair value rate base of \$7,812,036.**

1 **Rate Base Summary**

2 **Q. Please summarize Staff's adjustments to New River's rate base shown on Schedules**
3 **CSB-3 and CSB-4.**

4 A. Staff's adjustments to New River's rate base resulted in a net decrease of \$1,770,173,
5 from \$7,812,036 to \$6,041,863. This decrease was primarily due to the adjustments as
6 discussed below.

7
8 **Rate Base Adjustment No. 1– Post-Test Year Plant and Retirement**

9 **Q. What amount of plant did New River propose?**

10 A. New River proposed including \$5,444,591 of plant in rate base. The amount is composed
11 of \$5,373,333 in actual test year plant and \$71,258 for post-test year plant.

12
13 **Q. What is the \$71,258 post-test year plant item?**

14 A. The \$71,258 post-test year plant item is an interconnection with the City of Peoria.
15 According to New River, the interconnection was needed to resolve water quality issues
16 and to serve as a new source of water supply (CSB 1.4, 3.4, 5.1).

17
18 **Q. Did New River propose additional post-test year plant after its rate application was**
19 **filed?**

20 A. Yes, in March 2013, two of the Company's well pumps went down. The Company
21 requested to include the cost of the new well pumps in rate base.

22
23 **Q. Does Staff agree that it is appropriate to include the interconnection and emergency**
24 **well pump repair as post-test year plant?**

25 A. Yes, in this case. The cost of the plant is known and measurable, in service, and the
26 retirements related to the emergency well pump repairs have been reflected. Moreover,

1 the new plant was revenue neutral, was not constructed for growth, and is needed to serve
2 test year customers. Also, the water quality problems and failure of the well was beyond
3 the control of New River.

4
5 **Q. Has Staff reflected all of the costs incurred for the emergency well pump repairs?**

6 A. No. The Company has received only one invoice from Weber Water Resources in the
7 amount of \$84,115 for repair of a pump for well number six. Once the other invoices are
8 provided to the Company, the Company has stated that it will provide them to Staff.

9
10 **Q. Will Staff include the additional emergency well pump repair costs in plant once they
11 are received?**

12 A. Yes, if they are provided in a timely manner.

13
14 **Q. What is Staff's recommendation?**

15 A. Staff recommends increasing the pumping equipment account by \$84,115 as shown on
16 Schedules CSB-4 and CSB-5.

17
18 **Rate Base Adjustment No. 2 – Inadequately Supported Plant**

19 **Q. Are plant costs required to be supported?**

20 A. Yes. The Arizona Administrative Code R14-2-610 D.1 states, "Each utility shall keep
21 general and auxiliary accounting records reflecting the cost of its properties . . . and all
22 other accounting and statistical data necessary to give complete and authentic information
23 as to its properties . . ." (emphasis added).

1 **Q. During the audit, did Staff identify plant costs which New River could not adequately**
2 **support?**

3 A. Yes. New River did not provide invoices to support \$81,236 in pump additions and
4 \$23,747 in services additions. Source documents are essential records for verifying plant
5 costs. In the absence of supporting documentation, the Company's plant balances cannot
6 be verified.

7
8 **Q. Should the inadequately supported plant costs be removed from rate base?**

9 A. Yes. It is the Company's responsibility to support its claimed costs. If unsupported costs
10 are not removed, ratepayers are at risk of paying for non-existent or overstated costs.

11
12 **Q. What is Staff's recommendation?**

13 A. Staff recommends decreasing plant in service by \$222,346 as shown on Schedules CSB-4
14 and CSB-6.

15
16 **Rate Base Adjustment No. 3 – Unrecorded Plant**

17 **Q. Should all plant owned by a regulated water utility be recorded in the utility's books**
18 **and records?**

19 A. Yes. Accounting Instruction No. 13 of the NARUC USoA states the following:

20
21 Separate records shall be maintained by utility plant accounts of the
22 book cost of each plant owned including additions by the utility to
23 plant leased from others and of the cost of operating and
24 maintaining each plant owned or operated.

25

1 **Q. Did New River always record its plant?**

2 A. No, it did not. On page 7, beginning at line 10 of Mr. Ray Jones' direct testimony he
3 states:

4
5 . . . items of plant were periodically constructed and funded by
6 business entities controlled by Company management rather than
7 by New River. Company management stated that the cost of these
8 items of plant funded by affiliates *were not recorded on New*
9 *River's books.* (Emphasis added).

10
11 **Q. During the course of the audit did Staff identify specific examples of the Company**
12 **not recording plant in accordance to the NARUC USoA?**

13 A. Yes. Staff identified three Commission approved CC&N extensions (Decision Nos.
14 67164, 67440, and 69576) that the Company obtained since its last rate case. Staff sent
15 data requests (CSB 1.10, 1.11, & 1.12) which, among other things, asked for the amount
16 and the NARUC plant account number(s) in which the associated plant was recorded. The
17 Company's response to these data requests indicated that the plant was not recorded as
18 follows:

19
20 Based upon a review of the Company's books and records made in
21 answering this data request, *the Company does not believe that the*
22 *plant was ever recorded on the Company's books* (Emphasis
23 added).

24
25 **Q. What are the amounts and account numbers of the unrecorded plant?**

26 A. The amounts and account numbers are as follows:

27

Unrecorded Plant		
Acct. No.	Plant Description	Amount
331	Mains	\$553,910
333	Services	\$114,149
335	Hydrants	\$191,525
	Total	\$787,955

1 **Q. What is the effect of unrecorded plant?**

2 A. When plant is not recorded in accordance to the NARUC USoA, the financial information
3 provided by the Company cannot be relied upon for ratemaking purposes. For New River,
4 the effects of unrecorded plant are under-stated plant, accumulated depreciation, and
5 depreciation expense balances.

6
7 **Q. What is Staff's recommendation?**

8 A. Staff recommends increasing plant in service by \$787,955 to reflect plant financed with
9 AIAC as shown on Schedules CSB-4 and CSB-7.

10

11 **Rate Base Adjustment No. 4 – Expensed Plant**

12 **Q. Did New River record as operating expense, costs incurred for plant and that should**
13 **be recorded in plant accounts in accordance to the NARUC USoA?**

14 A. Yes, the Company expensed plant costs incurred for meter reading software, an engine
15 rebuild, and the interconnection with the City of Peoria.

16

17 **Q. What is the effect of expensing plant?**

18 A. The matching principle is violated. The NARUC USoA requires utilities to follow accrual
19 accounting. The matching principle is the underlying basis of accrual accounting. The
20 matching principle requires that revenues in an accounting period be matched to the
21 expenses incurred during that same accounting period.

22

23 The practice of expensing plant violates the matching principle because the entire cost of
24 the asset is matched to only one accounting period even though the asset will benefit many
25 accounting periods. Adherence to the matching principle and the NARUC USoA requires

1 that the cost of an asset that benefits more than one accounting period be capitalized (by
2 recording it in a plant account) and depreciated over the asset's useful life.

3

4 **Q. What is Staff's recommendation?**

5 A. Staff recommends increasing plant in service by \$18,236 to reclassify plant that was
6 incorrectly recorded as an operating expense as shown on Schedules CSB-4 and CSB-8.

7

8 **Rate Base Adjustment No. 5 – Other Tangible Plant Reclassification**

9 **Q. What amount did the Company propose for Other Tangible Plant?**

10 A. The Company proposed \$26,239.

11

12 **Q. During the course of the audit, did Staff determine that the amount should be**
13 **reclassified?**

14 A. Yes, in response to data requests CSB 3.4 f3 and MSJ 4.3, the Company stated that the
15 plant should be reclassified.

16

17 **Q. Did Staff review the invoice for the plant?**

18 A. Yes, Staff reviewed the invoice and determined that the plant should be reclassified to the
19 account no. 311, Pumping Equipment.

20

21 **Q. What is Staff recommending?**

22 A. Staff recommends decreasing this account by \$26,239 to reclassify plant to the pumping
23 equipment account as shown on Schedules CSB-4 and CSB-9.

24

1 **Rate Base Adjustment No. 6 – Plant Retirements**

2 **Q. Did Staff review the Company’s retirement work paper that was used to prepare the**
3 **instant rate application?**

4 A. Yes.

5
6 **Q. What did the work paper show?**

7 A. The work paper showed that, with the exception of transportation equipment, no
8 retirements have been recorded from 1984 to 2011; a 27 year time span.

9
10 **Q. What plant items are expected to break down, become obsolete, or non-operational**
11 **during 27 years?**

12 A. Plant items such as pumping equipment, meters, office furniture and equipment, and
13 computers and software all have useful lives of less than 27 years and would be expected
14 to break down, become obsolete, or non-operational at or within a close range of their
15 useful lives as follows:

16

Acct. No.	Plant Description	Useful Life
311	Pumping Equipment	8 years
334	Meters	12 years
340	Office Furniture & Equip	15 years
340.1	Computers & Software	5 years

17
18 **Q. Was Staff concerned that no retirements, other than transportation equipment, were**
19 **recorded on the Company’s books?**

20 A. Yes.

1 **Q. What was Staff's concern?**

2 A. Staff's concern was that the Company may not have recorded some of its plant retirements
3 just as it had not recorded some of its plant additions as discussed in Rate Base
4 Adjustment No. 3, "Unrecorded Plant."
5

6 **Q. Did the Company provide documentation showing that many of its pumps (or major
7 component parts) had been replaced?**

8 A. Yes, the Company provided invoices showing that pumps and other major component
9 parts had been replaced (CSB 1.4). Further, the Company provided an RCND study that
10 indicated that pumps and pump motors had been replaced in the years 2001, 2004, and
11 2006:
12
13

Site No.	Year Replaced	Asset	NARUC Acct.	Repro Cost
Well No. 1	2004	Pump & Motor	311	\$61,114
Well No. 2	2004	Pump & Motor	311	\$19,833
Well No. 4	2004	Pump & Motor	311	\$18,219
Well No. 6	2001	Pump & Motor	311	\$68,033
Well No. 6	2001	Piping & Appurtenances	311	\$64,574
Well No. 6	2001	Electrical & Instrumentation	311	\$ 7,495
Storage Tank No.1 & Booster Pumps	2006	25 hp Centrifugal Pump	311	\$ 5,600

1 **Q. When a broken pump and/or pump motor is replaced with a new pump and/or pump**
2 **motor, should the cost of the new pumping equipment be reflected as an addition and**
3 **the cost of the broken pumping equipment be reflected as a retirement on the**
4 **Company's books and records?**

5 A. Yes. The cost of new pumps and pump motors are properly included in the pumps
6 account. The NARUC USoA for plant account 331, Pumping Equipment states, in part,
7 the following:

8
9 This account shall include the cost of pumping equipment driven by
10 electric power, diesel engines, steam engines and hydraulic water
11 wheels and turbines. A sample of items to be included in this
12 account is listed below:

- 13
14 1. Engines, **motors**, water wheels and turbines for
15 driving pumps. (Emphasis added).
16 2. Pumps, including setting, gearing, shafting and
17 belting.

18
19 Accordingly, the cost for the broken pumps and pump motors that are no longer in service
20 and have been replaced are removed from the pumping equipment account. Accounting
21 Instruction No. 27, Paragraph B (2) of the NARUC USOA states:

22
23 When a retirement unit is retired from utility plant, with or without
24 replacement, the book cost thereof shall be credited to the utility
25 plant account in which it is included . . .”

26
27 **Q. What is the primary effect of the Company not removing retirements from plant in**
28 **service records?**

29 A. The primary effect of not removing retirements from plant in service records is that
30 depreciation expense and accumulated depreciation are overstated.

31
32

1 **Q. What is Staff's recommendation?**

2 A. Staff recommends decreasing account no. 311, pumping equipment by \$99,195 and
3 decreasing account no. 334, meters and meter installations by \$4,500 as shown on
4 Schedules CSB-4 and CSB-10.
5

6 **Rate Base Adjustment No. 7 – Accumulated Depreciation**

7 **Q. What depreciation methodology does New River currently use?**

8 A. New River currently uses the group method of depreciation (CSB 1-5).
9

10 **Q. Ms. Brown, in Staff's opinion, does the use of the group method of depreciation
11 present or cause problems within the rate making process?**

12 A. Yes. I will provide details regarding these problems later in my testimony but, in
13 summary, the use of the group method can result in over depreciating the original cost of
14 plant investments, higher rate base levels than warranted (and thus higher revenue
15 requirement to be paid by ratepayers), and a mismatch between actual useful life of new
16 plant investments and the time period over which these new investments are recovered
17 through rate-recognized depreciation expense.
18

19 Utilities can also be harmed or disadvantaged through cash flow implications associated
20 with the regulatory treatment given the underlying depreciation expense.
21

22 **Q. What is the primary difference between the group method and the vintage year
23 group method of depreciation?**

24 A. Both the group method and the vintage year group method of depreciation apply straight
25 line depreciation to a group of assets. However, the group method *does not* keep track of
26 the depreciation reserve of individual groups of assets by the year the individual groups

1 are placed in service. Use of the group method of depreciation creates numerous problems
2 for regulated utilities as discussed later in my testimony.
3

4 The vintage year group method *keeps track* of the depreciation reserve of individual
5 groups of assets *by the year the individual groups are placed in service (i.e. vintage year)*.
6 Assets do not continue to depreciate after they have been fully depreciated. The latter
7 method is consistent with the matching principle, the NARUC USOA, and the widely
8 accepted ratemaking principle of recovering only the cost of the asset through rates.
9

10 **Q. When is an asset considered fully depreciated under the group method and the**
11 **vintage year group method?**

12 A. Under the group method, plant assets are not considered fully depreciated until they are
13 retired. In other words, even though the full cost of an asset has been recovered through
14 depreciation expense, it is not considered fully depreciated until it has been retired.
15 Depreciation expense will continue to be calculated on the asset as long as it is in service.
16

17 Under the vintage year group method, assets are considered fully depreciated when the
18 full cost of the vintage group has been recovered through depreciation expense. Assets
19 that remain in service, though they are fully depreciated, will not continue to be
20 depreciated.
21

22 **Q. Is continuing to depreciate an asset after it has been fully depreciated consistent with**
23 **the NARUC USoA?**

24 A. No, it is not. The NARUC USoA discusses the use of only one type of depreciation
25 methodology, namely, the straight line methodology. The straight line methodology
26 allows only the service value (i.e. the original cost of the asset) to be depreciated whereas

1 the Company's group method allows *more than* the service value to be depreciated.

2 Definition 37 of the NARUC USOA states the following:

3
4 37. "Straight-line method" as applied to depreciation accounting
5 means the plan under which *the service value of property* is charged
6 to operating expenses (and to clearing accounts if used), and
7 credited to the accumulated depreciation account *through equal*
8 *annual charges during its useful life . . .* (emphasis added)

9
10 **Q. What types of problems can arise for Arizona regulated utilities using the group**
11 **depreciation methodology?**

12 **A.** There are five main problems that arise for Arizona regulated utilities as discussed below.

13
14 1. Group Depreciation Can Cause Negative Net Plant Balances

15 Utilization of the group methodology can cause a plant group to be depreciated beyond its
16 original cost if the plant is in service longer than its original anticipated useful life. This
17 will cause the net plant balance of the group to be negative. Negative plant values reduce
18 a regulated utility's rate base.

19
20 For example, on Exhibit RLJ-DT Schedule B-2.1, page 10, line 11 of New River's
21 application, it shows that in 2009 the pumping equipment account was fully depreciated
22 (i.e., the plant balance was \$939,631 and the accumulated depreciation balance was
23 \$939,631). Under the group method of depreciation, the \$939,631 in pumping equipment
24 continues to depreciate until the entire plant in the account is retired. Thus, the 2010 and
25 2011 depreciation expense would be \$117,453 (i.e., \$939,631 x 12.5%) for each year. The
26 accumulated depreciation for 2010 would be \$1,057,085 (i.e., \$939,631 + \$117,453) and
27 the accumulated depreciation for 2011 would be \$1,174,538 (i.e., \$1,057,085 + \$117,453).

28 As shown in column F in the table below, this causes negative net plant.

1

Calculation of Negative Plant Balance					
Col A	Col B	Col C	Col D	Col E	Col F
			Col B x Col C		Col B - Col E
Year	Plant Balance	Depreciation Rate	Depreciation Expense	Accumulated Depreciation	Net Plant
2010	\$939,631	12.5%	\$117,453	\$1,057,085	-\$117,454
2011	\$939,631	12.5%	\$117,453	\$1,174,538	-\$234,907
			\$234,907		

2

3

Negative plant balances caused by over-depreciation of assets do not occur with vintage year group depreciation.

4

5

6

2. Group Depreciation Can Cause Under-Stated Accumulated Depreciation When A Cap Is Placed On Accumulated Depreciation

7

8

Rather than accept the consequences of depreciating a plant group beyond its original cost (i.e., negative net plant balance), some companies, such as New River, place a cap on accumulated depreciation such that the accumulated depreciation will not exceed the original cost of the plant group. Using the example discussed in Item No. 1 above, New River placed a cap on accumulated depreciation such that it would not exceed the plant balance of \$939,631 to prevent the net balance from being negative.

10

11

12

13

14

15

16

17

18

19

20

This inappropriate practice violates the NARUC USoA because the NARUC USoA requires depreciation expense to be calculated on all plant in service and that this expense be added to accumulated depreciation each year for as long as the plant is in service. As can be seen from the table above, *New River has understated its accumulated depreciation balance by \$234,906*, the amount of depreciation expense that was recovered from customers but not recorded on the Company's books due to the cap. This, in turn,

1 overstates rate base. An over-stated rate base is unfair to the utility's customers who must
2 pay a rate of return on the over-stated rate base.

3
4 Placing caps on accumulated depreciation in order to avoid negative net plant balances is
5 not needed for vintage year group depreciation as depreciation ceases once the original
6 cost has been fully depreciated.

7
8 3. Group Depreciation Can Cause Depreciation Expense To Be Calculated Indefinitely
9 On Plant That Is No Longer In Service But Has Not Been Retired On The Company's
10 Books.

11 When an asset has been taken out of service but the cost of that asset has not been
12 removed from the associated plant account, depreciation expense will continue to be
13 calculated on the initial plant investment indefinitely even though it is not in service. For
14 example, New River had numerous pumps that had been replaced or rebuilt (see Schedule
15 CSB-10, Plant Retirements). However, the original cost of the old pumps that were
16 replaced or rebuilt was not removed from the pumping equipment account. Therefore,
17 depreciation would have continued to accrue on these retired assets indefinitely had Staff
18 not recommended that the old plant be retired. This problem does not occur under the
19 vintage year method because depreciation would cease once the total cost of the pumps
20 was fully depreciated.

21
22 4. Group Depreciation Can Cause The Cost Of A Plant Item Not To Be Allocated
23 Equally Over The Plant Item's Useful Life

24 Staff has found that some companies that use the group method have very large gross
25 plant account balances (e.g., New River) for certain plant accounts. Since original gross

1 investment is used to determine annual depreciation expense, the resulting depreciation
2 expense can be quite large even though the original cost may be fully depreciated.

3 If new plant additions are smaller than the annual depreciation expense, depreciating
4 individual plant additions within these large plant balances using the group method can
5 essentially depreciate most, if not all, of the new plant additions in the same year they are
6 added, rather than depreciating the assets over their useful lives. This is inconsistent with
7 the NARUC USoA.

8
9 Exhibit RLJ-DTE, Schedule B-2.1, page 7, of New River's application (see attachment)
10 shows a 2006 adjusted plant addition in the amount of \$7,221 for account no. 311,
11 Pumping Equipment. The pump should have been depreciated over 8 years. However the
12 \$7,221 pump, as well as all of the other pumps in the account, were fully depreciated at
13 the end of 2011, a five year period. Fully depreciating the pump over five years rather
14 than eight is inconsistent with the matching principle and the NARUC USOA.

15
16 Further, because the pumping equipment account is large (but fully depreciated), the cost
17 of any new pump additions under \$117,453 would be fully depreciated within one year
18 rather than over 12 years. For example, Exhibit RLJ-DTE, Schedule B-2.1, page 12 (see
19 attachment) shows that the Pumping Equipment plant balance is \$939,631 and the
20 accumulated depreciation for Pumping Equipment is also \$939,631. If an \$117,453 pump
21 addition were added, the depreciation expense calculated in the first year would be
22 \$124,795¹. Therefore, the \$117,453 in pumping equipment would be fully depreciated in
23 one year. This clearly violates the matching principle and the NARUC USOA.

24
25

¹ [$\$939,631 + (\$117,453 \times 1/2)$] $\times 12.5\% = \$124,795$

1 Again, this problem does not occur using the vintage year group depreciation method.

2
3 5. Group Depreciation Can Accelerate The Accumulation of The Depreciation Reserve
4 Thus Causing a Premature Decrease In Cash Flow

5 The group method of depreciation has the effect of accelerating the accumulation of the
6 depreciation reserve for plant accounts with large balances. This, in turn, will cause the
7 plant accounts to become fully depreciated faster. Once fully depreciated, the NARUC
8 USoA requires that depreciation expense on that account cease. A premature decrease in
9 depreciation expense will cause a premature decrease in cash flow for regulated utilities
10 because depreciation expense is recovered through rates.

11
12 New River's use of the group depreciation method has resulted in the pumping equipment
13 account being fully depreciated even before some of the recent pump additions have
14 reached the end of their useful lives as discussed in Item No. 4 above. Rather than face
15 the consequences of a premature reduction in cash flow resulting from using the group
16 depreciation method, the Company proposes to include \$117,454 of depreciation expense
17 on the *fully depreciated* pumping equipment balance (see Exhibit RLJ-DT Schedule C-2,
18 page 9, line 12 of New River's application). The Company's proposal is not consistent
19 with the NARUC USoA.

20
21 A premature decrease in cash flow does not occur using the vintage group method because
22 the cost of the group of plant additions added in a year (e.g. \$10,000 in pumps) would be
23 depreciated over the useful life of pumps rather than expensed in one year.
24

1 **Q. How are customers harmed under the Company's depreciation method?**

2 A. The customers are harmed because they (1) are paying for more than the cost of the asset
3 when an asset continues to be depreciated after it is fully depreciated and (2) pay more
4 than they should on the return on rate base when companies place a cap on the amount that
5 is added to accumulated depreciation reserve in order to keep the plant balance from going
6 negative.

7

8 **Q. What depreciation methodology does Staff generally recommend?**

9 A. Staff generally recommends the vintage year group methodology. Staff used this
10 methodology to calculate depreciation expense and, accordingly, accumulated
11 depreciation in its direct testimony for this case.

12

13 **Q. Does Staff recommend that New River discontinue the use of the group method of
14 depreciation and begin using the vintage year group methodology in the instant case?**

15 A. Yes. In order to be in agreement with the NARUC USoA and to remove the possibility of
16 negative net plant balances due to over-depreciation, Staff recommends that plant groups
17 be depreciated using vintage years. Once the plant group in a given vintage year is fully
18 depreciated, the calculation of depreciation expense would cease. This will prevent the
19 accumulated depreciation balance for that plant group from exceeding the original cost of
20 the plant group. Staff further recommends that New River employ this same methodology
21 on a going forward basis.

22

23 **Q. What adjustments did Staff make to the Company's proposed \$2,300,840 in
24 accumulated depreciation?**

25 A. Staff recalculated the Accumulated Depreciation balance using Staff's recommended plant
26 balances.

1 **Q. What is Staff's recommendation?**

2 A. Staff recommends decreasing accumulated depreciation by \$41,562 as shown on
3 Schedules CSB-4 and CSB-11.
4

5 **Rate-making Treatment of Unapproved Advances In Aid of Construction ("AIAC")**

6 **Q. Are AIAC agreements required to be approved by the Utilities Division of the**
7 **Commission?**

8 A. Yes, according to Arizona Administrative Code R14-2-406 M which states:

9
10 All agreements under this rule shall be filed with and approved by
11 the Utilities Division of the Commission. No agreement shall be
12 approved unless accompanied by a Certificate of Approval to
13 Construct as issued by the Arizona Department of Health Services.
14 *Where agreements for main extensions are not filed and approved*
15 *by the Utilities Division, the refundable advance shall be*
16 *immediately due and payable to the person making the advance.*
17 *Emphasis added.*

18

19 **Q. Did Staff identify any New River AIAC agreements that had not been approved by**
20 **the Utilities Division of the Commission?**

21 A. Yes. Staff identified \$787,956 in unapproved AIACs that the Company entered into since
22 its last rate case. The Company refunded \$17,595, for net unapproved AIAC of \$770,361.
23

24

24 **Q. For ratemaking purposes, how did Staff treat the unapproved AIAC?**

25 A. Staff treated the net unapproved AIAC as CIAC as discussed in Rate Base Adjustment No.
26 8 below.
27

28

28 **Rate Base Adjustment No. 8 – Contributions In Aid of Construction ("CIAC")**

29 **Q. What did the Company propose for CIAC?**

30 A. The Company proposed no CIAC.

1 **Q. What adjustment did Staff make to the CIAC account?**

2 A. Staff reflected \$1,179,719 in net unrefunded AIAC from the last rate case that had
3 converted to CIAC. Staff also reflected \$770,361 in net unrefunded unapproved AIAC
4 that had converted to CIAC during the intervening years since the last rate case.

5
6 **Q. What is Staff's recommendation?**

7 A. Staff recommends increasing CIAC by \$1,950,080 to reflect the AIAC that should be
8 transferred to CIAC as shown on Schedules CSB-4 and CSB-12.

9
10 **Rate Base Adjustment No. 9 – Amortization of CIAC**

11 **Q. Did Staff make any adjustments to the amortization of CIAC account?**

12 A. Yes.

13
14 **Q. What was the adjustment?**

15 A. Staff reflected the amortization of CIAC on the Staff recommended CIAC additions.

16
17 **Q. What is Staff's recommendation?**

18 A. Staff recommends increasing the amortization of CIAC by \$501,447, as shown on
19 Schedules CSB-4 and CSB-13.

20
21 **Rate Base Adjustment No. 10 – Cash Working Capital Allowance**

22 **Q. What are the components of working capital?**

23 A. The components of working capital as prescribed by the Arizona Administrative Code are
24 cash working capital, materials and supplies, and prepaid expenses.

1 **Q. Can total working capital be a negative amount that is deducted from rate base?**

2 A. Yes, this can happen when cash working capital (“CWC”) is negative and is larger than
3 the sum of the materials, supplies, and prepayments.

4

5 **Q. Does the Company’s proposal to only include prepayments in working capital**
6 **represent an inequitable adjustment to increase rate base?**

7 A. Yes. The Company chose not to conduct a lead-lag study and, accordingly, failed to
8 reflect any customer-provided capital as part of its working capital requirement.

9

10 It is inequitable for a utility the size of New River to calculate its working capital
11 allowance by ignoring its cash working capital position. This approach guarantees a
12 positive working capital result for New River. Had a lead-lag study been conducted, it
13 might have shown that working capital is a negative component of rate base.

14

15 **Q. Has the Commission recently adopted Staff’s recommendation to remove the**
16 **working capital from a Class C water company’s rate base because it had not**
17 **performed a lead-lag study?**

18 A. Yes, the Commission in Decision No. 72429 dated June 24, 2011, (page 7, beginning at
19 line 16), adopted Staff’s recommendation to remove Southland Utilities Company’s
20 working capital because it had not performed a lead-lag study.

21

22 **Q. What is Staff’s recommendation?**

23 A. Staff recommends removing \$96,775 from working capital, as shown on Schedules CSB-4
24 and CSB-14.

1 **Accumulated Deferred Income Taxes and the Income Tax Allowance**

2 **Q. What are accumulated deferred income taxes (“ADITs”)?**

3 A. ADITs are the accumulated computed tax differences between income taxes calculated for
4 book purposes and the actual income taxes that a company pays to the United States
5 Treasury and the State of Arizona. The primary cause of the income tax difference is the
6 straight line depreciation method used for rate-making purposes and accelerated
7 depreciation method used for Federal and State income tax reporting purposes.

8
9 **Q. Did Staff recommend an ADIT in the instant rate case?**

10 A. No, because New River has not recovered any income tax allowance through rates.

11
12 **Q. What does Staff recommend concerning any future rate cases for New River?**

13 A. Staff recommends that accumulated deferred income taxes be properly reflected in the
14 Company’s rate base.

15
16 **New River’s Loan To The Owner**

17 **Q. During the course of the audit, did Staff find that New River loaned funds to the**
18 **owner?**

19 A. Yes.

20
21 **Q. What is the amount of the loan?**

22 A. The loan amount was \$1,018,247 (CSB 3.2 d) at the end of the test year. The loan had
23 increased by \$142,457 to \$1,160,704 by the end of 2012 (CSB 5.5).

1 **Q. Has the loan affected the operations of the Company?**

2 A. Yes. The loan has adversely affected the Company's ability to provide timely
3 maintenance to its plant. On page 12, beginning at line 21 of Mr. Jones direct testimony,
4 he states:

5
6 The storage tank and hydro pneumatic tank at the 78th Lane Booster
7 Plant were due for recoating in 2012. However, *New River was*
8 *forced to postpone recoating the tanks due to insufficient available*
9 *funds.* The tanks have been rescheduled for recoating in 2014 in
10 anticipation of the additional funds being available as the result of
11 this rate increase request. The normalized tank recoating expense is
12 \$31,333 annually. Emphasis added.

13
14 **Q. What is Staff's recommendation concerning the loan?**

15 A. Staff recommends that the Company discontinue making loans to the owner. Further,
16 Staff recommends that the Company amortize the loan for a term of no less than 30 years
17 and that the owner begin re-paying the loan according to the amortization schedule within
18 60 days of the date of the decision resulting from this proceeding.

19
20 **Q. What should the Commission do in the Company's next rate case if the owner does**
21 **not repay the loan according to the amortization schedule?**

22 A. Staff recommends that if the owner fails to comply with the repayment schedule, Staff
23 recommends that the Commission impute the payments as revenue to the Company.

24

1 **Operating Income**

2 **Operating Income Summary**

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

5 A. As shown on Schedules CSB-21 and CSB-22, Staff's analysis resulted in test year
6 revenues of \$1,260,428, expenses of \$996,849 and operating income of \$263,579.

7

8 **Operating Income Adjustment No. 1 – Employee Pensions and Benefits**

9 **Q. What amount is the Company proposing for the Employee Pensions and Benefits**
10 **account?**

11 A. The Company is proposing \$22,326.

12

13 **Q. What adjustment did Staff make to this account?**

14 A. Staff reclassified \$14,400 in expenses from the Contractual Services- Management Fees
15 account to the Employee Pensions and Benefits account to reflect the proper classification
16 of housing benefits that were provided to an employee.

17

18 **Q. What is Staff's recommendation?**

19 A. Staff recommends increasing the Employee Pensions and Benefits account by \$14,400 as
20 shown on Schedules CSB-22 and CSB-23.

21

22 **Operating Income Adjustment No. 2 – Chemicals Expense**

23 **Q. What amount is the Company proposing for the Chemicals account?**

24 A. The Company is proposing \$15,338.

1 **Q. What adjustment did Staff make to this account?**

2 A. Staff reclassified \$11,957 from the Chemicals account to the Contractual Services- Other
3 account to reflect the proper classification of costs incurred for the services of a certified
4 operator.

5
6 **Q. What is Staff's recommendation?**

7 A. Staff recommends decreasing this account by \$11,957 as shown on Schedules CSB-22 and
8 CSB-24.

9
10 **Operating Income Adjustment No. 3 – Repairs and Maintenance Expense**

11 **Q. What is the Company proposing for repair and maintenance expense?**

12 A. The Company is proposing \$108,314.

13
14 **Q. What adjustment did Staff make?**

15 A. Staff removed a total of \$56,274. The adjustment consisted of (1) removing \$24,475 for
16 inadequately supported purchases made on the owner's personal credit card that were
17 charged to New River (2) removing the Company's \$31,333 pro forma adjustment for
18 tank painting (3) adding \$15,000 to provide for the replacement cost of the Company's
19 arsenic media and (4) removing \$15,466 in office supplies expense that the Company
20 stated were incorrectly included in the repairs and maintenance expense account. Staff
21 will discuss each adjustment separately.

1 Inadequately Supported Purchases Made On The Owner's Personal Credit Card And Charged To
2 New River

3 **Q. What was the total amount of charges made on the owner's personal credit card that**
4 **were charged to New River?**

5 A. The total amount of charges made on the owner's personal credit card that were reported
6 as New River's repairs and maintenance expense was \$27,584.

7
8 **Q. Did Staff request the underlying invoices to support the credit card charges?**

9 A. Yes, Staff requested the underlying invoices in data request CSB 6.7.

10
11 **Q. Did the Company provide the underlying invoices to support the credit card**
12 **purchases?**

13 A. No, it did not.

14
15 **Q. What type of documentation did the Company provide?**

16 A. The Company provided copies of the owner's personal credit card bills for 12 months.

17
18 **Q. What percentage of the transactions on the owner's personal credit card bills were**
19 **completely blacked out?**

20 A. Staff estimates that approximately 75% of each bill was completely blacked out.

21
22 **Q. Did Staff assume that the redacted charges were personal expenses of the owner and**
23 **the unredacted charges were the repairs and maintenance charges proposed for New**
24 **River?**

25 A. Yes.

26

1 **Q. Did Staff review the unredacted charges that the Company proposed as repair and**
2 **maintenance expense for New River?**

3 A. Yes.

4
5 **Q. What type of transactions did Staff disallow?**

6 A. Staff disallowed transactions that were not needed in the provision of service such as a
7 \$571.10 charge for the hotel Lauberge De Sedona in Sedona, Arizona; charges for Supple
8 Beverages (for joint relief); Walmart; On-Star; Mulqueen Sewing Center; Hertz Rent A
9 Car; Ulta 3; Barnes & Nobel; Crossroads of Life; Berean Christian Stores; Home Goods;
10 Lodi Garage Doors & More; Healy's Red Wing Shoe Store; Hobby Lobby; First Watch;
11 Hi Health; Party City; Hair In Motion; Amtrak; Loris Soap Market; FTD Jubilee Flowers;
12 Veteran's Museum Gifts; Best Buy; and Fry's Electronics.

13
14 **Q. Did Staff disallow any other types of transactions?**

15 A. Yes, Staff disallowed transactions wherein the location of the transaction was partially or
16 completely redacted. Staff notes that some of the transactions occurred in Cottonwood,
17 Arizona; Morenci, Arizona; and Odessa, Texas.

18
19 **Q. What type of transactions did Staff consider for repair and maintenance expense?**

20 A. Staff considered transactions made in the Phoenix metro area, that were not partially
21 redacted and were for Home Depot, Lowe's, various hardware stores; AOL Service;
22 Wagner Equipment; Arizona Lawn King, Harbor Freight, Dunn-Edwards; USPS; and such
23 other stores.

1 **Q. What is the total amount of costs that Staff considered for repair and maintenance**
2 **expense?**

3 A. The total amount is \$9,328.00.
4

5 **Q. For ratemaking purposes, did Staff allocate some of the \$9,328 to the owner and to**
6 **Cody Farms?**

7 A. Yes. Staff recognizes that the credit card purchases are a related party transaction; that
8 New River sometimes includes costs for its owner, Mr. Fletcher, and its affiliate, Cody
9 Farms, in its operating expenses; and that New River does not have actual invoices to
10 support any of the related party credit card purchases. Consequently, Staff allocated one
11 third of the cost to Mr. Fletcher; one-third of the cost to Cody Farms; and one-third of the
12 cost to New River as shown on Schedule CSB-25.
13

14 **Q. What does Staff recommend concerning any future recovery of costs from a credit**
15 **card with no underlying invoices?**

16 A. Staff recommends no recovery.
17

18 *Company's Pro Forma Adjustment for Tank Painting Maintenance*

19 **Q. What pro forma amount did the Company propose for tank painting maintenance?**

20 A. The Company proposed \$31,333.
21

22 **Q. Has the Company incurred any tank painting expense since its last rate case?**

23 A. No, it has not.
24

25 **Q. What is the reason that the Company has not incurred any tank painting expense?**

26 A. According to the Company, the reason is because it does not have the funds.

1 **Q. Would repayment of the loan made to the Company owner be sufficient to begin**
2 **tank painting?**

3 A. Yes, if the owner had repaid a portion (i.e. \$33,333) each year as calculated in the
4 Company's pro forma adjustment, the Company would have funds to pay for tank
5 painting.

6
7 **Q. What adjustment did Staff make to the Company's pro forma tank painting**
8 **maintenance adjustment?**

9 A. Staff removed the \$33,333 tank painting maintenance adjustment.

10

11 *Replacement Cost for the Company's Arsenic Media*

12 **Q. Does the Company have arsenic treatment plant?**

13 A. Yes. The arsenic treatment plant was placed in service in 2010.

14

15 **Q. What is the replacement cost of the arsenic media?**

16 A. According to the Company's response to data request CSB 5.3, the replacement cost is
17 \$75,000.

18

19 **Q. What is the expected useful life of the arsenic media?**

20 A. The expected useful life is three to five years (CSB 3.9).

21

22 **Q. What amount did Staff allow for media replacement?**

23 A. Staff allowed \$15,000 (i.e., \$75,000/5 years).

1 **Q. What is Staff's total recommendation for Repairs and Maintenance Expense?**

2 A. Staff recommends decreasing this account by \$56,274 as shown on Schedules CSB-22 and
3 CSB-25.

4

5 **Operating Income Adjustment No. 4 – Office Supplies Expense**

6 **Q. What did the Company propose for Office Supplies Expense?**

7 A. The Company did not propose any amount for office supplies expense

8

9 **Q. What adjustment did Staff make?**

10 A. Staff reclassified costs incurred for offices supplies from the Repairs and Maintenance
11 account to the Office Supplies Expense account.

12

13 **Q. What is Staff's recommendation?**

14 A. Staff recommends increasing this account by \$15,466 as shown on Schedules CSB-22 and
15 CSB-26.

16

17 **Operating Income Adjustment No. 5 – Contractual Services, Accounting**

18 **Q. What did the Company propose for Contractual Services, Accounting?**

19 A. The Company proposed \$8,428.

20

21 **Q. What adjustment did Staff make?**

22 A. Staff decreased this account by \$2,423 to remove costs incurred for the preparation of the
23 Company's bill counts for the instant rate application. Staff did not reclassify the amount
24 to rate case expense as the Company's proposed and Staff recommended total rate case
25 expense of \$150,000 is sufficient to reimburse the Company for the \$2,423 amount paid.

26

1 **Q. What is Staff's recommendation?**

2 A. Staff recommends decreasing this account by \$2,423 as shown on Schedules CSB-22 and
3 CSB-27.

4

5 **Operating Income Adjustment No. 6 – Contractual Services, Legal**

6 **Q. What did the Company propose for Contractual Services, Legal?**

7 A. The Company proposed \$23,128 for Contractual Services, Legal.

8

9 **Q. What adjustments did Staff make?**

10 A. Staff removed \$2,424 in legal costs that belonged to the owner and/or affiliate that were
11 incorrectly charged to New River; removed \$1,716 in unsupported legal costs; reflected a
12 three year normalization of \$11,152 in legal costs related to a payment dispute and related
13 to the title to a well; and capitalized \$4,656 in legal costs related to the interconnect PTY
14 plant.

15

16 **Q. What is Staff's recommendation?**

17 A. Staff recommends decreasing this account by \$16,231 as shown on Schedules CSB-22 and
18 CSB-28.

19

20 **Operating Income Adjustment No. 7 – Contractual Services, Management Fees**

21 **Q. What did the Company propose for Contractual Services, Management Fees?**

22 A. The Company proposed \$75,000 for Contractual Services, Management Fees.

23

24 **Q. What adjustment did Staff make?**

25 A. Staff reclassified \$14,400 incurred for employee housing expenses from the Contractual
26 Services- Management Fees account to the Employee Pensions and Benefits account; and

1 reclassified \$60,600 in costs for renting office, workshop space, and the 87th Avenue
2 Booster Plant property from the Contractual Services- Management Fees account to the
3 Rent-Buildings account.

4
5 **Q. What is Staff's recommendation?**

6 A. Staff recommends decreasing this account by \$75,000 as shown on Schedules CSB-22 and
7 CSB-29.

8
9 **Operating Income Adjustment No. 8 – Contractual Services, Water Testing**

10 **Q. What did the Company propose for water testing expense?**

11 A. The Company proposed no water testing expense.

12
13 **Q. What adjustment did Staff make?**

14 A. Staff reclassified \$47,950 in water testing costs from the Contractual Services- Other
15 account to the Contractual Services- Water Testing account. Further, Staff decreased the
16 account by \$37,314 to reflect Staff's recommended \$10,636 water testing expense as
17 discussed in greater detail by Staff witness Marlin Scott, Jr.

18
19 **Q. What is Staff's recommendation?**

20 A. Staff recommends increasing water testing expense by \$10,636 as shown on Schedules
21 CSB-22 and CSB-30.

22
23 **Operating Income Adjustment No. 9 – Contractual Services, Other**

24 **Q. What did the Company propose for the contract services, other expense?**

25 A. The Company proposed \$54,479.

26

1 **Q. What adjustments did Staff make?**

2 A. Staff reclassified \$11,957 incurred for the services of a certified operator from the
3 Chemicals account to the Contractual Services- Other account; reclassified \$47,950 in
4 water testing costs from the Contractual Services- Other account to the Contractual
5 Services- Water Testing account, and removed \$5,775 in costs incurred for an affiliate.
6

7 **Q. What is Staff's recommendation?**

8 A. Staff recommends decreasing this account by \$41,768 as shown on Schedules CSB-22 and
9 CSB-31.
10

11 **Operating Income Adjustment No. 10 – Rents, Building Expense**

12 **Q. Is New River affiliated with Cody Farms?**

13 A. Yes. New River and Cody Farms have the same owners, Mr. and Mrs. Fletcher.
14

15 **Q. Are the rents that New River pays to its unregulated affiliate, Cody Farms, a related-**
16 **party transaction?**

17 A. Yes.
18

19 **Q. What is a related party transaction?**

20 A. In general, a related party transaction refers to a company and any other party with which
21 the company may deal where one party has the ability to influence the other to the extent
22 *that one party of the transaction may not pursue its own separate best interest.* It is not an
23 arm's-length bargaining of parties of opposing interests.

1 **Q. What types of real estate does New River rent from Cody Farms?**

2 A. New River rents an office building, a workshop facility, and the 87th Avenue booster plant
3 property from Cody Farms. The Company's response to data request CSB 6.2, states the
4 following:

5
6 New River notes that its response to CSB 1.16 refers to the use of a
7 **workshop facility** as accounting for **\$12,000 annually** of the
8 management fees paid to Cody Farms, and not the rental of office
9 space as stated in this data request above.

10
11 In addition to the workshop facility and the employee housing noted
12 above, **New River pays Cody Farms** for the use of the **business**
13 **office** and the **87th Avenue booster plant property**. New River
14 uses the business office to provide customer service, conduct billing
15 and all other business functions of the utility. The 87th Avenue
16 booster plant property is the site of well no. 3, two 1,000,000 gallon
17 storage tanks, four booster pumps and the Company's arsenic
18 treatment facility. The Company does not have information or
19 documentation regarding the actual cost of the business office
20 property and improvements on the 87th Avenue booster plant
21 property and well no. 3. Please note that all other improvements on
22 the 87th Avenue booster plant property are included in New River's
23 plant-in-service.

24
25 **Q. Is rental of the 87th Avenue booster plant property from Cody Farms in the public**
26 **interest?**

27 A. No, it is not. The 87th Avenue booster plant property is not protected from Cody Farms'
28 creditors should the owners (i.e., Mr. and Mrs. Fletcher) file for bankruptcy or die. The
29 resulting legal and financial problems could threaten or possibly cause disruption of water
30 service for New River's customers.

1 **Q. What is Staff recommending concerning the rental of the 87th Avenue booster plant**
2 **property?**

3 A. Staff recommends that the owners transfer the property to New River.
4

5 **Q. What amount of rental expense is Staff recommending for the business office?**

6 A. Staff is recommending annual rental expense of \$23,860.
7

8 **Q. How did Staff determine the \$23,860 amount?**

9 A. Staff used an online real estate database that provides estimates of the selling and rental
10 prices of real estate properties². The monthly rental price provided for the Company's
11 office located at 7939 W. Deer Valley Road was \$1,950. Staff compared this rental price
12 to downtown office space rented by the Commission and to another regulated water
13 company with approximately the same number of employees and determined that the
14 amount was reasonable. The monthly rental price of \$1,965 results in a \$23,580 annual
15 expense (\$1,965 x 12).
16

17 **Q. What is the amount that New River pays for the workshop space?**

18 A. New River pays the affiliate, Cody Farms, \$12,000 annually for the rental of 4,000 square
19 feet of an approximately 14,000 square feet workshop facility.
20

21 **Q. Did Staff personally inspect the workshop facility?**

22 A. Yes.
23

² Zillow.com

1 **Q. Where were the materials and supplies housed for New River?**

2 A. The materials and supplies were housed along one wall of a room within the facility that
3 was approximately 1,000 square feet.

4
5 **Q. What adjustment did Staff make to the \$12,000 annual rents expense for the
6 workshop?**

7 A. Staff reduced the amount by \$9,000, from \$12,000 to \$3,000. Staff calculated a \$3.00 cost
8 per square foot by dividing the proposed \$12,000 per year by 4,000 square foot. Staff
9 multiplied the \$3 per square foot times the 1,000 square feet to arrive at \$3,000 annually
10 for the rental of the workshop space.

11
12 **Q. What is Staff's recommendation concerning Rents, Building Expense?**

13 A. Staff recommends increasing the Rents, Building account by \$26,580, as shown on
14 Schedules CSB-22 and CSB-32.

15
16 **Operating Income Adjustment No. 11 – Rents, Equipment (Vehicles)**

17 **Q. What did the Company propose for Rents, Equipment (Vehicles)?**

18 A. The Company proposed \$24,000 for Rents, Equipment (Vehicles).

19
20 **Q. What adjustments did Staff make?**

21 A. Staff removed \$2,797 of transportation expense related to a truck rental that Staff
22 determined was excessive and not needed in the provision of service; removed \$4,020 for
23 costs of an affiliate that were incorrectly charged to New River; and capitalized \$6,512 for
24 an engine that was rebuilt.

1 **Q. What is Staff's recommendation?**

2 A. Staff recommends decreasing transportation expense by \$13,164, as shown on Schedules
3 CSB-22 and CSB-33.

4

5 **Operating Income Adjustment No. 12 – Transportation Expense**

6 **Q. What did the Company propose for Transportation Expense?**

7 A. The Company proposed \$13,316 for transportation expense.

8

9 **Q. What adjustments did Staff make?**

10 A. Staff removed the gas and oil costs for the truck that Staff determined was excessive
11 consistent with Staff's recommendation for Operating Income Adjustment No.11, Rents,
12 Equipment (Vehicles). Staff also removed \$4,020 in costs incurred for the affiliate;
13 capitalized \$6,512 incurred to rebuild a truck engine; and normalized two abnormally
14 large transportation purchases (i.e., \$2,106 and \$4,021) that were made on a credit card.
15 Staff normalized these costs using three years as these costs are not expected to be
16 incurred at the same level each year and to allow recovery of the total costs within the
17 timeframe that Staff expects the Company to file another rate case.

18

19 **Q. What is Staff's recommendation?**

20 A. Staff recommends decreasing transportation expense by \$13,329, as shown on Schedules
21 CSB-22 and CSB-34.

22

23 **Operating Income Adjustment No. 13 – Bad Debt Expense**

24 **Q. What did the Company propose for Bad Debt Expense?**

25 A. The Company proposed \$7,688 for Bad Debt Expense.

26

1 **Q. What adjustments did Staff make?**

2 A. Staff normalized the bad debt expense using three years as the amount of bad debt expense
3 varied widely from year to year.

4

5 **Q. What is Staff's recommendation?**

6 A. Staff recommends decreasing this account by \$5,125, as shown on Schedules CSB-22 and
7 CSB-35.

8

9 **Operating Income Adjustment No. 14 – Miscellaneous Expense**

10 **Q. What did the Company propose for Miscellaneous Expense?**

11 A. The Company proposed \$61,587 for Miscellaneous Expense.

12

13 **Q. What adjustments did Staff make?**

14 A. Staff removed \$13,427 for meals, parties, and entertainment; \$3,363 for donations; and
15 \$3,597 for business promotions as these costs are not needed in the provision of service.

16

17 **Q. What is Staff's recommendation?**

18 A. Staff recommends decreasing this account by \$16,790, as shown on Schedules CSB-22
19 and CSB-36.

20

21 **Operating Income Adjustment No. 15 – Depreciation Expense**

22 **Q. What is New River proposing for depreciation expense?**

23 A. New River is proposing depreciation expense of \$245,585.

1 **Q. What adjustment did Staff make to depreciation expense?**

2 A. Staff adjusted depreciation expense to reflect Staff's calculation of depreciation expense
3 using Staff's recommended depreciation rates, plant balances, and CIAC balances. Staff's
4 calculation is shown on Schedule CSB-37.

5
6 **Q. What is Staff's recommendation?**

7 A. Staff recommends decreasing depreciation expense by \$186,934, as shown on Schedules
8 CSB-22 and CSB-37.

9
10 **Operating Income Adjustment No. 16 – Income Tax Allowance**

11 **Q. What is New River proposing for test year income tax allowance?**

12 A. New River is proposing a negative \$69,820 for income taxes.

13
14 **Q. Did Staff make any adjustments to the Company's proposed test year income tax
15 allowance?**

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

18
19 **Q. What is Staff's recommendation?**

20 A. Staff recommends increasing the income tax allowance by \$104,730 as shown on
21 Schedules CSB-22 and CSB-38.

22
23 **Operating Income Adjustment No. 17 – Interest Expense on Customer Deposits**

24 **Q. What is New River proposing for income expense on customer deposits?**

25 A. New River is proposing no interest expense on customer deposits.

26

1 **Q. Does the Arizona Administrative Code require that regulated water companies pay**
2 **interest expense on customer deposits?**

3 A. Yes. Arizona Administrative Code R-14-2-403(B) requires regulated water companies to
4 pay interest expense on customer deposits.

5

6 **Q. Did Staff make an adjustment to provide for this requirement?**

7 A. Yes.

8

9 **Q. What is Staff's recommendation?**

10 A. Staff recommends increasing interest expense on customer deposits by \$1,367 as shown
11 on Schedules CSB-16 and CSB-27.

12

13 **Operating Income – Property Taxes**

14 **Q. Did Staff make any adjustment to test year property tax expense?**

15 A. No. Staff reviewed and accepted the Company's calculation. The Company's calculation
16 is the same as Staff's calculation of the property tax expense which uses the modified
17 Arizona Department of Revenue Methodology applied to Staff's recommended revenues,
18 as shown on Schedule CSB-40.

19

20 **Record Keeping**

21 **Q. Are Companies required to keep their books and records in accordance with the**
22 **NARUC USOA?**

23 A. Yes. The Arizona Administrative Code R14-2-411 D.2 requires water companies to
24 maintain their accounting records in accordance with the NARUC USoA. It states that
25 "Each utility shall maintain its books and records in conformity with the Uniform System
26 of Accounts for Class A, B, C and D Water Utilities" (emphasis added).

1 **Q. Please identify areas where the Company's books and records are not in accordance**
2 **with the NARUC USoA.**

3 A. As previously discussed, Staff found:

- 4 1. Missing or inadequate documentation to support plant costs
- 5 2. Expenses being recorded in the wrong account
- 6 3. Expenses of the owner, Mr. Fletcher, and the affiliate Cody Farms
7 sometimes being included in New River's expenses
- 8 4. Shared assets not allocated properly
- 9 5. Unrecorded Depreciation Expense
- 10 6. Unrecorded plant
- 11 7. Unrecorded retirements
- 12 8. AIAC's that had not been approved by the Commission
- 13 9. Unrecorded AIAC
- 14 10. AIAC's that were not transferred to CIAC following the terms of the AIAC
15 contract

16
17 **Q. What is Staff's recommendation concerning the Company's record keeping?**

18 A. In order to address the Company's accounting deficiencies stemming from its
19 noncompliance with Arizona Administrative Code R14-2-610 D.1 and the NARUC
20 USoA, Staff recommends that the Company be ordered to file with Docket Control a plan,
21 subject to Staff approval, describing the actions it will take to maintain its books and
22 records in compliance with Arizona Administrative Code R14-2-610 D.1 and the NARUC
23 USoA within 60 days of the date of the decision resulting from this proceeding. The plan
24 should include, but not be limited, to:

- 25 1. Training on the record keeping requirements of Arizona Administrative
26 Code R14-2-610 D.1

- 1 2. Implementation of policies and procedures to help ensure that source
2 documentation such as invoices and canceled checks are maintained to
3 support plant costs and are not destroyed or thrown away.
4 3. Training on recording AIAC's in accordance with the NARUC USoA.

5

6 **Q. What is Staff's recommendation concerning the unrecorded plant in service**
7 **retirements?**

8 A. Staff recommends that the Company use work orders to help record retirements. Staff
9 further recommends that retirement work orders should include the following information:
10 (a) whether the retirement cost utilized is actual or estimated; (b) the name of the water
11 company or system from which the plant was removed; (c) the date of the retirement; (d)
12 the NARUC account number from which the plant was removed; (e) the reason for the
13 retirement; and (f) appropriate approvals on the work orders.

14

15 **RATE DESIGN**

16 **Q. Has Staff prepared a schedule summarizing the present, Company proposed, and**
17 **Staff recommended rates and service charges?**

18 A. Yes. Schedule CSB-42 provides a summary of the Company's present, Company's
19 proposed, and Staff's recommended rates.

20

21 **Q. Please summarize the present rate design.**

22 A. Customer class is distinguished by meter size. The monthly minimum charges vary by
23 meter size and include no gallons. The commodity rates are based on an inverted three-
24 tiered rate design.

1 **Q. Please summarize the Company's proposed rate design.**

2 A. Customer class is distinguished by meter size. The monthly minimum charges vary by
3 meter size and include no gallons. The commodity rates are based on an inverted three -
4 tier rate design. The Company's proposed rates would increase the typical residential 5/8
5 x 3/4-inch meter bill with a median usage of 8,762 gallons from \$18.01 to \$30.69, for an
6 increase of \$12.67 or 70.34 percent, as shown on Schedule CSB-42.

7
8 **Q. Please summarize Staff's recommended rate design.**

9 A. Customer class is distinguished by meter size. The monthly minimum charges vary by
10 meter size and include no gallons. The commodity rates are based on an inverted three-
11 tier rate design. Staff's recommended rates would increase the typical residential 5/8 x
12 3/4-inch meter bill with a median usage of 8,762 gallons from \$18.01 to \$23.52, for an
13 increase of \$5.51 or 30.58 percent, as shown on Schedule CSB-42.

14
15 **Q. Did the Company propose any changes to its Meter and Service Line Charges?**

16 A. Yes, and Staff recommends approval. Both the Company-proposed and the Staff-
17 recommended changes are shown on Schedule CSB-41 and are discussed in greater detail
18 in the testimony of Staff witness, Marlin Scott, Jr.

19
20 **Service Charges**

21 **Q. Did the Company propose any changes to the service charges?**

22 A. Yes. The Company proposes to increase the Establishment charge from \$25 to \$30;
23 discontinue the Establishment (After Hours) charge; increase the Reconnection
24 (Delinquent) charge from \$35 to \$40; increase the Insufficient Funds Check ("NSF")
25 charge from \$15 to \$30; increase the Meter Re-Read (If Correct) charge from \$20 to \$30;
26 and to add an After Hours Charge of \$25.

1 **Q. Does Staff agree with the Company-proposed Establishment, Reconnection**
2 **(Delinquent), and Meter Re-Read (If Correct) Charges?**

3 **A.** Yes.

4
5 **Q. Does Staff agree with the Company's proposal to discontinue the \$37.50**
6 **Establishment (After Hours) Charge and to add a \$25 After Hours Charge?**

7 **A.** Yes, Staff agrees that the Establishment (After-Hours) Charge should be discontinued and
8 that an After-Hours charge should be added. Staff agrees that an additional fee for service
9 provided after normal business hours is appropriate when such service is at the customer's
10 request. Such a tariff compensates the utility for additional expenses incurred from
11 providing after-hours service.

12
13 Moreover, Staff concludes that it is appropriate to apply an after-hours service charge in
14 addition to the charge for any utility service provided after hours at the customer's request.
15 For example, under Staff's proposal, a customer would be subject to a \$30 Establishment
16 fee if it is done during normal business hours, but would pay an additional \$25 after-hours
17 fee if the customer requested that the establishment be done after normal business hours.

18
19 **Q. Does Staff agree with the Company-proposed NSF Check charge?**

20 **A.** No, Staff does not. Staff has requested documentation to support the \$15 increase, from
21 \$15 to \$30. The Company has not provided documentation. Therefore, Staff recommends
22 no change to the current charge.
23

1 **Q. Does Staff have any other recommendations concerning the miscellaneous service**
2 **charges?**

3 **A.** Yes, Staff recommends that the following clarifying language be added to the Revised
4 Exhibit RLJ-DR2, Schedule H-3, page 2:

- 5 1. Deposit Requirement, Line 9 – Change the words “None Residential” to “Non-
6 Residential”
7 2. Deposit Interest, Line 10 – Add the words “per year”
8 3. Re-Establishment (Within 12 Months), Line 11 – Remove the word “bill” and add the
9 word “charge”

10

11 **Q. What is the additional revenue that would be generated from Staff’s recommended**
12 **service charge increases?**

13 **A.** The additional service charge revenue would be \$3,060, as shown in Table B below:

14

	Description	Number of Charges in TY		Amount of Increase		Total Additional Rev
CSB 1.36	Establishment	551	x	\$ 5	=	\$2,755
CSB 1.36	Reconnection (Delinquent)	61	x	\$ 5	=	\$ 305
						\$3,060

15

16 **Q. Did Staff reflect the additional service charge revenue in its rate design?**

17 **A.** Yes. Staff allocated \$3,060 of its total \$336,254 revenue increase to other revenue and the
18 remainder to metered revenue as shown on Schedule CSB-21.

1 **Emergency Purchased Water Surcharge and Tariff**

2 *Emergency Purchased Water Surcharge*

3 **Q. During the course of the audit, did the Company meet with Staff to discuss**
4 **recovering the cost of emergency well repairs and water purchases that occurred in**
5 **2013?**

6 A. Yes, in March 2013, two of the Company's wells went down and it had to purchase water
7 from the City of Peoria in order to meet customer water demands.

8
9 **Q. What are the Company's total purchased water costs and gallons purchased?**

10 A. According to the City of Peoria purchased water invoices, the total purchased water costs
11 are \$11,292 and the total gallons purchased are 3,005,000 gallons.

12
13 **Q. Did Staff recommend the addition of a tariff that would allow the Company to**
14 **recover purchased water costs in the case of an emergency water shortage?**

15 A. Yes, it is attached as Exhibit A.

16
17 **Q. Is the Company required to submit a calculation of the Emergency Purchased Water**
18 **Surcharge and obtain prior approval from Staff prior to billing customers?**

19 A. Yes. The Company is required to submit a calculation of the Emergency Purchased Water
20 Surcharge and obtain prior approval from Staff prior to billing customers showing the
21 calculation of the surcharge using the same methodology presented on Exhibit A.

22
23 **Q. Does this conclude Staff's direct testimony?**

24 A. Yes, it does.

TARIFF

EMERGENCY PURCHASED WATER SURCHARGE

New River Utility Company (“New River” or “Company”) is authorized to make monthly adjustments to its rates and charges for water service to recover costs incurred for water purchases (“Purchased Water Costs”) in the event that New River experiences extreme water shortages.

The Emergency Purchased Water Surcharge (“Surcharge”) shall be calculated by dividing the total Purchased Water Costs incurred in a given month by the amount of water sold that month. The resulting rate per 1,000 gallons will then be multiplied by the gallons used in that month for each customer to arrive at the Surcharge per 1,000 gallons. The Company is required to submit a calculation of the Surcharge and obtain approval from Staff prior to billing customers. In addition, the Company shall provide a detailed explanation and documentation to support the fact that New River had indeed experienced an extreme water shortage. Once the Surcharge calculation has been approved by Staff, the resulting Surcharge will be charged in the next month as a separate line item on the customer’s bill.

The Commission recognizes that operational decisions regarding water supply management should be left within the discretion of the Company and that deficient water supply conditions sometimes require the Company to concurrently supplement its primary water supplies to meet customer demand. The foregoing notwithstanding, Company shall undertake reasonable efforts to minimize the quantity of water purchased.

Attachments

(Company Exhibit RLJ-DTE Sch B-2.1, P. 7 & 12)

REVENUE REQUIREMENT

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY ORIGINAL FAIR VALUE</u>	<u>[B] STAFF ORIGINAL FAIR VALUE</u>
1	Adjusted Rate Base	\$ 7,812,036	\$ 6,041,863
2	Adjusted Operating Income (Loss)	\$ 3,629	\$ 263,579
3	Current Rate of Return (L2 / L1)	0.05%	4.36%
4	Required Rate of Return	8.72%	7.60%
5	Required Operating Income (L4 * L1)	\$ 681,210	\$ 459,182
6	Operating Income Deficiency (L5 - L2)	\$ 677,581	\$ 195,603
7	Gross Revenue Conversion Factor	1.60490	1.63452
8	Increase (Decrease) In Gross Revenue (L7 * L6)	\$ 1,087,449	\$ 319,717
9	Adjusted Test Year Revenue	\$ 1,260,428	\$ 1,260,428
10	Proposed Annual Revenue (L8 + L9)	\$ 2,347,877	\$ 1,580,145
11	Required Increase/(Decrease in Revenue) (%) (L8/L9)	86.28%	25.37%

References:

Column [A]: Company Schedules A-1

Column [B]: Staff Schedules CSB-2, CSB-3, & CSB-15

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
<i>Calculation of Gross Revenue Conversion Factor:</i>					
1	Revenue	100.0000%			
2	Uncollectible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	38.8199%			
5	Subtotal (L3 - L4)	61.1801%			
6	Revenue Conversion Factor (L1 / L5)	1.634519			
<i>Calculation of Uncollectible Factor:</i>					
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	37.8277%			
9	One Minus Combined Income Tax Rate (L7 - L8)	62.1723%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 * L10)	0.0000%			
<i>Calculation of Effective Tax Rate:</i>					
12	Operating Income Before Taxes	100.0000%			
13	Arizona State Income Tax Rate	4.5400%	From CSB-2, Line 26		
14	Federal Taxable Income (L12 - L13)	95.4600%			
15	Applicable Federal Income Tax Rate (Line 53)	34.8708%			
16	Effective Federal Income Tax Rate (L14 x L15)	33.2877%			
17	Combined Federal and State Income Tax Rate (L13 +L16)		37.8277%		
<i>Calculation of Effective Property Tax Factor</i>					
18	Unity	100.0000%			
19	Combined Federal and State Income Tax Rate (L17)	37.8277%			
20	One Minus Combined Income Tax Rate (L18-L19)	62.1723%			
21	Property Tax Factor	1.5960%			
22	Effective Property Tax Factor (L20*L21)		0.9922%		
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			38.8199%	
24	Required Operating Income	\$ 459,182			
25	Adjusted Test Year Operating Income (Loss)	263,579			
26	Required Increase in Operating Income (L24 - L25)		\$ 195,603		
27	Income Taxes on Recommended Revenue (Col. [C], L52)	\$ 230,117			
28	Income Taxes on Test Year Revenue (Col. [A], L52)	111,105			
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		119,011		
30	Recommended Revenue Requirement	\$ 1,580,145			
31	Uncollectible Rate (Line 10)	0.0000%			
32	Uncollectible Expense on Recommended Revenue (L30*L31)	\$ -			
33	Adjusted Test Year Uncollectible Expense	\$ -			
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32-L33)				
35	Property Tax with Recommended Revenue	\$ 65,450			
36	Property Tax on Test Year Revenue	60,348			
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		5,103		
38	Total Required Increase in Revenue (L26 + L29 + L34 + L37)		\$ 319,717		
<i>Calculation of Income Tax:</i>					
39	Revenue	\$ 1,260,428	\$ 319,717	\$ 1,580,145	
40	Operating Expenses Excluding Income Taxes	\$ 885,744	\$ 5,103	\$ 890,847	
41	Synchronized Interest (L56)	\$ -		\$ -	
42	Arizona Taxable Income (L39 - L40 - L41)	\$ 374,684		\$ 689,298	
43	Arizona State Income Tax Rate	3.9854%		4.2385%	
44	Arizona Income Tax (L42 x L43)	\$ 14,933		\$ 29,216	
45	Commission Tax Allowance Policy - Federal Taxable Income (L37- L39)	\$ 359,751		\$ 660,082	
46	Commission Tax Allowance Policy - Federal Effective Tax	26.7330%		30.4356%	
47	Commission Tax Allowance Policy - Federal Tax	\$ 96,172		\$ 200,900	
48	Federal Tax on Income Bracket - Not Used	\$ -		\$ -	
49	Federal Tax on Income Bracket - Not Used	\$ -		\$ -	
50	Federal Tax on All Income (See Sch CSB-2, Page 2, Line 27)	\$ -		\$ -	
51	Total Federal Income Tax	\$ 96,173		\$ 200,900	
52	Combined Federal and State Income Tax (L44 + L51)	\$ 111,105		\$ 230,117	
53	Applicable Federal Income Tax Rate [Col. [C], L51 - Col. [A], L51] / [Col. [C], L45 - Col. [A], L45]				34.8708%
<i>Calculation of Interest Synchronization:</i>					
54	Rate Base	\$ 6,041,863			
55	Weighted Average Cost of Debt	0.0000%			
56	Synchronized Interest (L45 X L46)	\$ -			

Line No.	Description	Test Year	Staff Recommended
1			
2	<u>Calculation of Income Tax:</u>		
3	Revenue	\$ 1,260,428	\$ 1,580,145
4	Less: Operating Expenses (Excluding Income Taxes)	885,744	890,847
5	Less: Synchronized Interest	-	-
6	Arizona Taxable Income (Married Filing Jointly)	\$ 374,684	\$ 689,298
7	<u>Over</u> <u>But not Over</u> <u>Amount plus</u> %		
8	- 20,000 - 2.59%	\$ -	\$ -
9	20,000 50,000 (58) 2.88%	-	-
10	50,000 100,000 (149) 3.36%	-	-
11	100,000 300,000 (589) 4.24%	-	-
12	300,000 999,999,999 (2,078) 4.54%	14,933	29,216
13	Arizona Income Tax	\$ 14,933	\$ 29,216
14	Federal Taxable Income (Married Filing Jointly)	\$ 359,751	\$ 660,082
15	<u>Over</u> <u>But not Over</u> <u>Amount plus</u> %		
16	- 17,000 - 10.00%	\$ -	\$ -
17	17,000 69,000 1,700 15.00%	-	-
18	69,000 139,350 9,500 25.00%	-	-
19	139,350 212,300 27,088 28.00%	-	-
20	212,300 379,150 47,514 33.00%	96,172	-
21	379,150 9,999,999,999 102,574 35.00%	-	200,900
22	Total Federal Income Tax	\$ 96,172	\$ 200,900
23			
24	Combined Federal and State Income Tax	\$ 111,105	\$ 230,116
25			
26	Applicable Arizona State Tax	3.9854%	4.2385%
27	Applicable Federal Income Tax	26.7330%	30.4356%
28	Combined Federal and State Tax Rate	30.7184%	34.6742%
29			
30	Applicable Arizona State Income Tax Rate (Rate Applicable to Revenue Increase)		4.5400%
31	Applicable Federal Income Tax Rate (Rate Applicable to Revenue Increase)		34.8708%
32			

FAIR VALUE RATE BASE

LINE NO.	PLANT IN SERVICE	[A] Original Cost Per Staff	[B] Reconstructed New Cost Per Staff	[C] Total	[D]	[E]	[F] Fair Value Rate Base Per Staff As Adjusted
1	Acct. No. - I Plant Description						
2	302 Franchises	\$ -	\$ -	\$ -	x	50%	\$ -
3	303 Land and Land Rights	75,181	-	75,181	x	50%	\$ 37,591
4	304 Structures and Improvements	84,633	84,633	169,266	x	50%	\$ 84,633
5	307 Wells and Springs	795,021	2,368,472	3,163,493	x	50%	\$ 1,581,747
6	309 Supply Mains	-	-	-	x	50%	\$ -
7	310 Power Generation Equipment	-	-	-	x	50%	\$ -
8	311 Pumping Equipment	950,790	1,219,676	2,170,466	x	50%	\$ 1,085,233
9	320 Water Treatment Equipment	383,055	568,450	951,505	x	50%	\$ 475,753
10	330 Distribution Reservoirs and Standpipes	1,046,963	2,152,303	3,199,266	x	50%	\$ 1,599,633
11	330.2 Pressure Tanks	-	-	-	x	50%	\$ -
12	331 Transmission and Distribution Mains	1,827,529	9,073,009	10,900,537	x	50%	\$ 5,450,269
13	333 Services	350,474	2,564,645	2,915,119	x	50%	\$ 1,457,560
14	334 Meters and Meter Installations	118,343	117,596	235,939	x	50%	\$ 117,970
15	335 Hydrants	313,089	1,953,372	2,266,461	x	50%	\$ 1,133,231
16	336 Backflow Prevention Devices	-	-	-	x	50%	\$ -
17	339 Other Plant and Miscellaneous Equipment	-	-	-	x	50%	\$ -
18	340 Office Furniture and Equipment	19,273	19,273	38,546	x	50%	\$ 19,273
19	340.1 Computers and Software	7,069	7,069	14,138	x	50%	\$ 7,069
20	341 Transportation Equipment	7,712	7,712	15,424	x	50%	\$ 7,712
21	343 Tools, Shop, and Garage Equipment	-	-	-	x	50%	\$ -
22	344 Laboratory Equipment	-	-	-	x	50%	\$ -
23	345 Power Operated Equipment	29,725	29,725	59,450	x	50%	\$ 29,725
24	346 Communication Equipment	-	-	-	x	50%	\$ -
25	347 Miscellaneous Equipment	-	-	-	x	50%	\$ -
26	348 Other Tangible Equipment	-	-	-	x	50%	\$ -
27	Rounding	-	-	-			
28	Total Plant in Service	\$ 6,008,856	\$ 20,165,935	\$ 26,174,791			\$ 13,087,396
29	Less: Accumulated Depreciation	\$ 2,259,278	\$ 6,925,529	\$ 9,184,807	x	50%	4,592,403
30	Net Plant in Service	\$ 3,749,578	\$ 13,240,407	\$ 16,989,985			\$ 8,494,992
32	<u>LESS:</u>						
33	Advances in Aid of Construction (AIAC)	\$ -	\$ -	\$ -	x	50%	\$ -
34	Meter Deposits - Service Line & Meter Advances	\$ -	\$ -	\$ -	x	50%	\$ -
36	Contributions in Aid of Construction (CIAC)	\$ 1,950,080	\$ 4,347,289	\$ 6,297,369	x	50%	\$ 3,148,684
37	Less: Accumulated Amortization of CIAC	\$ 501,447	\$ 935,231	\$ 1,436,678	x	50%	\$ 718,339
38	Net CIAC	\$ 1,448,633	\$ 3,412,057	\$ 4,860,690			\$ 2,430,345
40	Total Advances and Net Contributions	\$ 1,448,633	\$ 3,412,057	\$ 4,860,690	x	50%	\$ 2,430,345
42	Customer Deposits	\$ 22,784	\$ 22,784	\$ 45,568	x	50%	\$ 22,784
43	Accumulated Deferred Taxes	\$ -	\$ -	\$ -	x	50%	\$ -
45	<u>ADD:</u>						
46	Cash Working Capital Allowance	\$ -	\$ -	\$ -	x	50%	\$ -
47		\$ -	\$ -	\$ -			\$ -
48	Total Rate Base	\$ 2,278,161	\$ 9,805,565	\$ 12,083,727			\$ 6,041,863

SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT.	PLANT IN SERVICE	COMPANY AS FILED	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]
				No. - f Plant Description	Adj. No.1 Post-Test Year Plant	Adj. No.2 Inadequately Supported Plant	Adj. No.3 Unrecorded Plant	Adj. No.4 Expensed Plant	Adj. No.5 Other Tangible Plant Reclass	Adj. No.6 Retirements Plant	Adj. No.7 Accumulated Depreciation	Adj. No.8 CIAC	Adj. No.9 Amortization of CIAC	Adj. No.10 Cash Working Capital Allowance	STAFF AS ADJUSTED
				Ref. Sch CSB-5	Ref. Sch CSB-6	Ref. Sch CSB-7	Ref. Sch CSB-8	Ref. Sch CSB-9	Ref. Sch CSB-10	Ref. Sch CSB-11	Ref. Sch CSB-12	Ref. Sch CSB-13	Ref. Sch CSB-14		
1	302	Franchises	75,181												75,181
2	303	Land and Land Rights	84,633												84,633
3	304	Structures and Improvements	795,021												795,021
4	307	Wells and Springs													
5	309	Supply Mains													
6	310	Power Generation Equipment	84,115												
7	311	Pumping Equipment													
8	320	Water Treatment Equipment													
9	330	Distribution Reservoirs and Standpipes	1,046,963												
10	330.2	Pressure Tanks													
11	331	Transmission and Distribution Mains	1,402,013		(133,050)	553,910	4,666								950,790
12	333	Services	236,325		(3,296)	114,149									383,055
13	334	Meters and Meter Installations	193,193			119,896									1,046,963
14	335	Hydrants													
15	336	Backflow Prevention Devices													
16	339	Other Plant and Miscellaneous Equipment													
17	340	Office Furniture and Equipment	19,273												19,273
18	340.1	Computers and Software					7,069								7,069
19	341	Transportation Equipment	1,200				6,512								118,343
20	343	Tools, Shop, and Garage Equipment													
21	344	Laboratory Equipment													
22	345	Power Operated Equipment	115,725		(86,000)										29,725
23	346	Communication Equipment													
24	347	Miscellaneous Equipment													
25	348	Other Tangible Equipment													
26		Rounding	26,239			(26,239)									
27															
28		Total Plant in Service	5,444,591	84,115	(222,346)	787,955	18,236		(103,895)						6,008,856
29		Less: Accumulated Depreciation	2,300,840						(41,562)						2,259,278
30		Net Plant in Service	3,143,751	84,115	(222,346)	787,955	18,236		(103,895)						3,749,578
31															
32		LESS:													
33		Advances in Aid of Construction (AIAC)													
34		Meter Deposits - Service Line & Meter Advances													
35		Contributions in Aid of Construction (CIAC)									1,950,080				1,950,080
36		Less: Accumulated Amortization of CIAC													
37		Net CIAC									1,950,080				1,950,080
38															
39															
40		Total Advances and Net Contributions									1,950,080				1,950,080
41		Customer Deposits													
42		Accumulated Deferred Taxes	22,784												22,784
43															
44															
45		ADD:													
46		Cash Working Capital Allowance	96,775												(96,775)
47															
48		Total Rate Base	3,217,742	84,115	(222,346)	787,955	18,236		(103,895)		1,950,080				2,278,161

ORIGINAL COST RATE BASE ADJUSTMENT NO. 1 - POST TEST-YEAR PLANT

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Acct No. 311, Pumping Equipment	\$ 939,631	\$ -	\$ 939,631
2	Emergency Repair of Well Pump No. 6	\$ -	\$ 84,115	\$ 84,115
3		\$ -	\$ -	\$ -
4	Adjusted Test Year Plant	\$ 939,631	\$ 84,115	\$ 1,023,746

References:

- Column [A]: Company Schedule B-2
- Column [B]: Testimony, CSB
- Column [C]: Column [A] + Column [B]

ORIGINAL COST RATE BASE ADJUSTMENT NO. 2 - INADEQUATELY SUPPORTED PLANT COSTS

LINE NO.	DESCRIPTION	[A]	[B]	[C]	
		PLANT SELECTED IN SAMPLE	UNSUPPORTED PLANT COSTS	STAFF AS ADJUSTED	
1	2001 Plant Addition, Acct No. 311 - Pumping Equipment	\$ 163,163	\$ -	\$ 163,163	
2	2003 Plant Addition, Acct No. 311 - Pumping Equipment	12,096	-	12,096	
3	Acct No. 311- Pumping Equipment Subtotal	\$ 175,259	\$ -	\$ 175,259	
4					
5	2010 Plant Addition, Acct No. 320-Water Treatment Equip.	\$ 381,395	\$ -	\$ 381,395	
6					
7	2002 Plant Addition, Acct No. 331-Transp. & Distrib. Mains	\$ 119,606	\$ (119,606)	\$ -	- Missing documentation
8	2004 Plant Addition, Acct No. 331-Transp. & Distrib. Mains	42,500	(13,444)	29,056	Missing documentation
9	2008 Plant Addition, Acct No. 331-Transp. & Distrib. Mains	5,366	-	5,366	Amount corrected in RB Adj. 2
10	2009 Plant Addition, Acct No. 331-Transp. & Distrib. Mains	7,000	-	7,000	Amount corrected in RB Adj. 2
11	Acct No. 331- Transp. & Distrib. Mains Subtotal	\$ 174,472	\$ (133,050)	\$ 41,422	
12					
13	2006 Plant Addition, Acct No. 334-Meters	\$ 3,296	\$ (3,296)	\$ -	- Missing documentation
14	2011 Plant Addition, Acct No. 334-Meters	12,713	-	12,713	
15	Acct No. 334- Meters Subtotal	\$ 16,009	\$ (3,296)	\$ 12,713	
16					
17	2005 Plant Addition, Acct No. 345-Power Operated Equipmnt	\$ 86,000	\$ (86,000)	\$ -	- Missing documentation
18					
19	2011 Plant Addition, Acct No. 348-Other Tangible Equipment	\$ 26,239	\$ -	\$ 26,239	
20					
21	Total	\$ 859,374	\$ (222,346)	\$ 637,028	

References:

- Column A: Company Schedule B-2
- Column B: Testimony, CSB, Company Data Request Responses CSB 1.3
- Column C: Column [A] + Column [B]

ORIGINAL COST RATE BASE ADJUSTMENT NO. 3 - UNRECORDED PLANT

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Acct No. 331 - Mains	\$ 1,402,013	\$ 553,910	\$ 1,955,923
2	Acct No. 333 - Services	\$ 236,325	\$ 114,149	\$ 350,474
3	Acct No. 334 - Hydrants	\$ 193,193	\$ 119,896	\$ 313,089
4	Total	\$ 1,831,531	\$ 787,955	\$ 2,619,486

Data Request Reference	Acct No. 331 Mains	Acct No. 333 Services	Acct No. 335 Hydrants	Total
CSB 3.1	\$ 163,807	\$ 31,397	\$ 35,277	\$ 230,481
CSB 3.2	\$ 200,350	\$ 28,050	\$ 31,500	\$ 259,900
CSB 3.2	\$ 113,600	\$ 42,925	\$ 35,000	\$ 191,525
CSB 3.3	\$ 76,153	\$ 11,777	\$ 18,119	\$ 106,049
	\$ 553,910	\$ 114,149	\$ 119,896	\$ 787,955

Year	Acct No. 331 Mains	Acct No. 333 Services	Acct No. 335 Hydrants
CSB 3.1 2004	\$ 139,413	\$ 18,924	\$ 21,166
CSB 3.2 2004	\$ 95,200	\$ 34,850	\$ 28,000
CSB 3.1 2005	\$ 24,394	\$ 12,473	\$ 14,111
CSB 3.2 2005	\$ 200,350	\$ 28,050	\$ 31,500
CSB 3.2 2005	\$ 18,400	\$ 8,075	\$ 7,000
CSB 3.3 2006	\$ 76,153	\$ 11,777	\$ 18,119
	\$ 553,910	\$ 114,149	\$ 119,896

References:

- Column A: Company Schedule B-2
- Column B: Testimony, CSB; Data Request Response CSB 3.1, 3.2, & 3.3
- Column C: Column [A] + Column [B]

ORIGINAL COST RATE BASE ADJUSTMENT NO. 4 - EXPENSED PLANT

LINE NO.	Description	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	331 - Mains	\$ 1,402,013	\$ 4,656	\$ 1,406,669
2	340.1 - Computers and Software	\$ -	\$ 7,069	\$ 7,069
3	341 - Transportation Equipment	\$ 1,200	\$ 6,512	\$ 7,712
4		\$ 1,403,213	\$ 13,581	\$ 14,781
5				
6				
7	PLANT COSTS REMOVED FROM REPAIRS & MAINTENANCE ACCOUNT (CSB 1-22)			
8	Acct. No.	Date	Description	Amount
9	340.1	12/31/10	Meter Reading Software	\$ 7,069.00
10				
11				
12	PLANT COSTS REMOVED FROM TRANSPORTATION EXPENSE ACCOUNT (CSB 1.31 & CSB 6.6)			
13	Acct. No.	Year	Description	Amount
14	341	2011	Transportation Equipment	\$ 6,511.81
15				
16				
17	PLANT COSTS REMOVED FROM CONTRACTUAL SERVICES LEGAL (CSB 6.5)			
18	Acct. No.	Year	Description	Amount
19	331	2011	Interconnection Agreement	\$ 4,655.65

References:

- Column A: Company Schedule C-1
- Column B: Testimony, CSB, Company Data Request Responses CSB 1-25, 1-29, & 1-35
- Column C: Column [A] + Column [B]

ORIGINAL COST RATE BASE ADJUSTMENT NO. 5 - OTHER TANGIBLE PLANT RECLASSIFICATION

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS (CSB 3.4 f 3)	STAFF AS ADJUSTED
1	Acct. No. 311 - Pumping Equipment	\$ 939,631	26,239	965,870
2	Acct No. 348 - Other Tangible Plant	26,239	(26,239)	-
3	Plant Total	\$ 965,870	\$ -	\$ 965,870

References:

Column A: Company Schedule B-2

Column B: Testimony, CSB; Data Request Response 3.4 (f) (3)

Column C: Column [A] + Column [B]

ORIGINAL COST RATE BASE ADJUSTMENT NO. 6 - PLANT RETIREMENTS

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Acct. No. 311 - Pumping Equipment	\$ 939,631	\$ (99,195)	\$ 840,436
2	Acct. No. 334 -Meters and Meter Installations	\$ 126,139	\$ (4,500)	\$ 121,639
3		\$ -	\$ -	\$ -
4		<u>\$ 1,065,770</u>	<u>\$ (103,695)</u>	<u>\$ 962,075</u>

Acct. No.	Acct. Description	Replacement Cost				Amount
311	Pumping Equip	\$ 29,056	x	50%	=	\$ 14,527.91
311	Pumping Equip	\$ 9,964	x	50%	=	\$ 4,981.90
311	Pumping Equip	\$ 4,800	x	50%	=	\$ 2,400.00
311	Pumping Equip	\$ 1,387	x	50%	=	\$ 693.38
311	Pumping Equip	\$ 4,312	x	50%	=	\$ 2,155.82
311	Air compressor	\$ 5,315	x	50%	=	\$ 2,657.58
311	Pumping Equip	\$ 26,239	x	50%	=	\$ 13,119.46
		<u>\$81,072.05</u>				<u>\$ 40,536.03</u>
334	Meters	\$ 9,000	x	50%	=	\$ 4,500.00
		<u>\$90,072.05</u>				<u>\$ 45,036.03</u>

Data Request	Invoice ID #	Site No.	Year Added	Account No.	Description	Amount
CSB 1.3 & 3.7	29	Well No.1	2004	311	Pumping Equip	\$ 29,056
CSB 1.3 & 3.7	n/a	Well No.1	2003	311	Pumping Equip	\$ 9,964
CSB 3.7	n/a	Storage Tank #1	2006	311	Pumping Equip	\$ 4,800
CSB 1.3 & 3.8	14	Not specified	2010	311	Pumping Equip	\$ 1,387
CSB 1.3 & 3.8	18	Not specified	2010	311	Pumping Equip	\$ 4,312
CSB 1.3 & 3.8	36	Well No.6	2010	311	air compressor	\$ 5,315
CSB 1.3	27	Well No.3	2011	311	Pumping Equip	\$ 26,239
CSB 3.8	n/a	n/a	2011	334	Meters	\$ 9,000
						\$ 90,072

RETIREMENTS RELATED TO EMERGENCY REPAIR OF PUMP FOR WELL NO. 6						
2000	311	Pumping Equipment				\$ 58,659

References:

- Column [A]: Company Schedule B-2
- Column [B]: Testimony, CSB
- Column [C]: Column [A] + Column [B]

ORIGINAL COST RATE BASE ADJUSTMENT NO. 7 - ACCUMULATED DEPRECIATION

LINE NO.	NARUC Acct No.	NARUC PLANT DESCRIPTION Per Exh RLJ-DTD, Sch B-2.1, Page 12	COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	304	Structures & Improvements	\$ 31,130	\$ -	\$ 31,130
2	307	Wells & Springs	\$ 374,796	\$ -	\$ 374,796
3	311	Pumping Equipment	\$ 939,631	\$ (137,276)	\$ 802,355
4	320	Water Treatment Equip	\$ 19,078	\$ -	\$ 19,078
5	330	Distribution Reservoirs and Standpipes	\$ 282,757	\$ -	\$ 282,757
6	331	Transmission and Distribution Mains	\$ 318,835	\$ 64,099	\$ 382,934
7	333	Services	\$ 112,317	\$ 22,305	\$ 134,622
8	334	Meters and Meter Installations	\$ 112,517	\$ (4,500)	\$ 108,017
9	335	Hydrants	\$ 45,222	\$ 13,810	\$ 59,032
10	340	Office Furniture and Equipment	\$ 17,177	\$ -	\$ 17,177
11	341	Transportation Equipment	\$ 1,200	\$ -	\$ 1,200
12	345	Power Operated Equipment	\$ 43,556	\$ -	\$ 43,556
13	348	Other Tangible Equipment	\$ 2,624	\$ -	\$ 2,624
14		Total Accumulated Depreciation	\$ 2,300,840	\$ (41,562)	\$ 2,259,278

ACCUMULATED DEPRECIATION RELATED TO UNRECORDED MAINS, ACCT NO 331

Data Request	Year Placed In Service	Acct No.	Description	Plant Cost	Number of Interim Years	Depreciation Rate	Accumulated Depreciation	
19	CSB 3.1	2004	331	Mains	\$ 139,413	6.5	2.00%	\$18,124
20	CSB 3.2	2004	331	Mains	\$ 95,200	6.5	2.00%	\$12,376
21				\$ 234,613				\$30,500
23	CSB 3.1	2005	331	Mains	\$ 24,394	5.5	2.00%	\$2,683
24	CSB 3.2	2005	331	Mains	\$ 200,350	5.5	2.00%	\$22,039
25	CSB 3.2	2005	331	Mains	\$ 18,400	5.5	2.00%	\$2,024
26				\$ 243,144				\$26,746
28	CSB 3.3	2006	331	Mains	\$ 76,153	4.5	2.00%	\$6,854
29				\$553,910				\$64,099

ACCUMULATED DEPRECIATION RELATED TO UNRECORDED SERVICES, ACCT NO 333

Data Request	Year Placed In Service	Acct No.	Description	Plant Cost	Number of Interim Years	Depreciation Rate	Accumulated Depreciation	
34	CSB 3.1	2004	331	Services	\$ 18,924	6.5	3.33%	\$4,096
35	CSB 3.2	2004	331	Services	\$ 34,850	6.5	3.33%	\$7,543
36				\$ 53,774				\$11,639
38	CSB 3.1	2005	331	Services	\$ 12,473	5.5	3.33%	\$2,284
39	CSB 3.2	2005	331	Services	\$ 28,050	5.5	3.33%	\$5,137
40	CSB 3.2	2005	331	Services	\$ 8,075	5.5	3.33%	\$1,479
41				\$ 48,598				\$8,901
43	CSB 1.2 & 3.3	2006	331	Services	\$ 11,777	4.5	3.33%	\$1,765
44				\$114,149				\$22,305

ACCUMULATED DEPRECIATION RELATED TO UNRECORDED HYDRANTS, ACCT NO 335

Data Request	Year Placed In Service	Acct No.	Description	Plant Cost	Number of Interim Years	Depreciation Rate	Accumulated Depreciation	
49	CSB 3.1	2004	331	Hydrants	\$ 21,166	6.5	2.00%	\$2,752
50	CSB 3.2	2004	331	Hydrants	\$ 28,000	6.5	2.00%	\$3,640
51				\$ 49,166				\$6,392
53	CSB 3.1	2005	331	Hydrants	\$ 14,111	5.5	2.00%	\$1,552
54	CSB 3.2	2005	331	Hydrants	\$ 31,500	5.5	2.00%	\$3,465
55	CSB 3.2	2005	331	Hydrants	\$ 7,000	5.5	2.00%	\$770
56				\$ 52,611				\$5,787
58	CSB 1.2 & 3.3	2006	331	Hydrants	\$ 18,119	4.5	2.00%	\$1,631
59				\$119,896				\$13,810

ACCUMULATED DEPRECIATION RELATED TO RETIREMENTS

Data Request	Plant Retirement	Acct No.	Description	Plant Cost	Number of Interim Years	Depreciation Rate	Amount Removed from Accum Depr	
64	CSB 3.7	Schedule CSB-10	311	Pumping Equip	\$ (99,195)	n/a	n/a	\$ (99,195)
65	CSB 3.7	Schedule CSB-10	334	Meters	\$ (4,500)	n/a	n/a	\$ (4,500)
66				\$ (103,695)			\$ (103,695)	

ACCUMULATED DEPRECIATION ADJUSTMENT ON PUMPS FULLY DEPRECIATED IN SAME YEAR PLACED IN SERVICE

Col A	Col B	Col C	Col D	Col E	Col F	Col G	Col H	Col I	Col J	
Year	Schedule	Acct No.	Description	Plant Cost	Number of Interim Years	Depreciation Rate	Depr Expense Col E x Col F x Col G	Recorded Depreciation	Difference Col H - Col I	
72	2003	Exhibit RLJ-DT2, Sch B-2.1, P4	311	Pumping Equip	\$ 12,096	7.5	12.5%	\$ 11,340	\$ 12,096	\$ (756)
73	2004	Exhibit RLJ-DT2, Sch B-2.1, P5	311	Pumping Equip	\$ 30,911	6.5	12.5%	\$ 25,115	\$ 30,911	\$ (5,796)
74	2005	Exhibit RLJ-DT2, Sch B-2.1, P6	311	Pumping Equip	\$ 43,166	5.5	12.5%	\$ 29,677	\$ 43,166	\$ (13,489)
75	2010	Data Requ Resp 1.3 Invoice ID #27	311	Pumping Equip	\$ 26,239	2.5	12.5%	\$ 8,200	\$ 26,239	\$ (18,039)
76				\$ 112,412			\$ 74,332	\$ 112,412	\$ (38,081)	

**ORIGINAL COST RATE BASE
ADJUSTMENT NO. 8 - CONTRIBUTIONS IN AID OF CONSTRUCTION ("CIAC")**

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		PER COMPANY	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	CIAC from Last Rate Case	\$ -	\$ 1,179,719	\$ 1,179,719
2	CIAC from Intervening Years (Unapproved)	\$ -	\$ 770,361	\$ 770,361
3	Total CIAC	\$ -	\$ 1,950,080	\$ 1,950,080

AIAC From Last Rate Case		Amount
CSB 1.9	Fulton Homes	\$ 1,713,206
CSB 1.9	Dehaven	\$ 103,109
CSB 1.9	Beazer	\$ 424,331
CSB 1.9	Payne	\$ 2,533
CSB 1.9	School District	\$ 986,366
CSB 1.9	Deer Valley Service	\$ 62,681
CSB 1.9	Payne Resources	\$ 36,270
		\$ 3,328,496
Refunds on AIAC		
CSB 1.9	Refunds on Fulton AIAC	\$ (1,752,147)
CSB 1.9	Refunds on Dehaven AIAC	\$ (47,819)
CSB 1.9	Refunds on Beazer AIAC	\$ (265,522)
CSB 1.9	Refunds on School District	\$ (66,752)
CSB 1.9	Refunds on Deer Valley Service	\$ (5,000)
CSB 1.9	Refunds on Payne Resources	\$ (11,537)
Total Refund Payments on AIAC Contracts		\$ (2,148,777)
Amount transferred to CIAC		\$ 1,179,719

AIAC Added During Intervening Years		Amount
CSB 1.10 & 3.1	Arrowhead Ranch Office Park, LLC	\$ 230,481
CSB 1.11 & 3.2	Cody Farms	\$ 259,900
CSB 1.11 & 3.2	Riverstone Estates (Columbia I & II)	\$ 158,050
CSB 1.11 & 3.2	Riverstone Estates (Columbia I & II)	\$ 33,475
CSB 1.12 & 3.3	Arrowhead Ranch Industrial Park	\$ 106,050
		\$ 787,956
Refunds on AIAC		
CSB 1.10 (d)	Refunds on Arrowhead Ranch Office	\$ (7,300)
CSB 1.11 (d)	Refunds on Cody Farms	\$ -
CSB 1.11 (d)	Refunds on Riverstone (Columbia)	\$ (3,295)
CSB 1.12 (d)	Refunds on Arrowhead Ranch Office	\$ (7,000)
		\$ (17,595)
Amount transferred to CIAC		\$ 770,361

Unapproved
2009 per CSB 1.10
2006 per Sch B-2.1, p.7
2009 per Sch B-2.1, p.10

References:

- Column A: Company Schedule B-1
- Column B: Testimony, CSB; Data Request Response CSB 2-11
- Column C: Column [A] + Column [B]

ORIGINAL COST RATE BASE ADJUSTMENT NO. 9 - AMORTIZATION OF CONTRIBUTIONS IN AID OF CONSTRUCTION ("CIAC")

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	[C] STAFF AS ADJUSTED			
1	Amortization of CIAC	\$ -	\$ 501,447	\$ 501,447			
2							
3							
4							
5	CALCULATION OF AMORTIZATION OF CIAC						
6	Staff Reference Schedule	AIAC Contract Name	Year Transferred To CIAC (Per CSB 1.9)	Number of Interim Years	CIAC Amortization Rate (Sch B-2.1, P.12, Line 38)	Amortization of CIAC	
9	CSB-12	Fulton Homes	\$ 1,713,206	2005	6.5	2.3497% \$ 261,659	
10	CSB-12	Dehaven	\$ 103,109	2007	4.5	2.3497% \$ 10,902	
11	CSB-12	Beazer	\$ 424,331	2007	4.5	2.3497% \$ 44,867	
12	CSB-12	Payne	\$ 2,533	2008	3.5	2.3497% \$ 208	
13	CSB-12	School District	\$ 986,366	2006	5.5	2.3497% \$ 127,472	
14	CSB-12	Deer Valley Service	\$ 62,681	2006	5.5	2.3497% \$ 8,100	
15	CSB-12	Payne Resources	\$ 36,270	2008	3.5	2.3497% \$ 2,983	
16			\$ 3,328,496			\$ 456,192	
17							
18							
19	CALCULATION OF AMORTIZATION OF CIAC FOR MAINS, ACCT. NO. 331						
20	Data Request Responses	AIAC Contract Name	Acct No. 331 Mains	Year Transferred To CIAC	Number of Interim Years	CIAC Amortization Rate (Sch B-2.1, P.12)	Amortization of CIAC
23	CSB 1.10e & 3.1	Arrowhead Ranch Office Park,I	\$ 163,807	2009	2.5	2.0000% \$ 8,190	
24	CSB 1.11d & 3.2	Cody Farms	\$ 200,350	2011	0.5	2.0000% \$ 2,004	
25	CSB 1.11d & 3.2	Riverstone Estates (Columbia I & II)	\$ 113,600	2008	5.5	2.0000% \$ 12,496	
26	CSB 1.12d & 3.3	Arrowhead Ranch Industrial Park	\$ 76,153	2009	2.5	2.0000% \$ 3,808	
27			\$ 553,910			\$ 26,498	
28							
29							
30	CALCULATION OF AMORTIZATION OF CIAC FOR SERVICES, ACCT. NO. 333						
31	Data Request Responses	AIAC Contract Name	Acct No. 333 Services	Year Transferred To CIAC	Number of Interim Years	CIAC Amortization Rate (Sch B-2.1, P.12)	Amortization of CIAC
34	CSB 1.10e & 3.1	Arrowhead Ranch Office Park,I	\$ 31,397	2009	2.5	3.33% \$ 2,614	
35	CSB 1.11d & 3.2	Cody Farms	\$ 28,050	2011	0.5	3.33% \$ 467	
36	CSB 1.11d & 3.2	Riverstone Estates (Columbia I & II)	\$ 42,925	2008	5.5	3.33% \$ 7,862	
37	CSB 1.12d & 3.3	Arrowhead Ranch Industrial Park	\$ 11,777	2009	2.5	3.33% \$ 980	
38			\$ 114,149			\$ 11,923	
39							
40							
41	CALCULATION OF AMORTIZATION OF CIAC FOR HYDRANTS, ACCT. NO. 335						
42	Data Request Responses	AIAC Contract Name	Acct No. 335 Hydrants	Year Transferred To CIAC	Number of Interim Years	CIAC Amortization Rate (Sch B-2.1, P.12)	Amortization of CIAC
45	CSB 1.10e & 3.1	Arrowhead Ranch Office Park,I	\$ 35,277	2009	2.5	2.0000% \$ 1,764	
46	CSB 1.11d & 3.2	Cody Farms	\$ 31,500	2011	0.5	2.0000% \$ 315	
47	CSB 1.11d & 3.2	Riverstone Estates (Columbia I & II)	\$ 35,000	2008	5.5	2.0000% \$ 3,850	
48	CSB 1.12d & 3.3	Arrowhead Ranch Industrial Park	\$ 18,119	2009	2.5	2.0000% \$ 906	
49			\$ 119,896			\$ 6,835	

References:

Column A: Company Schedule C-1
Column B: Testimony, CSB
Column C: Column [A] + Column [B]

New River Utility Company
Docket No. W-01737A-12-0478
Test Year Ended December 31, 2011

Schedule CSB-14

**ORIGINAL COST RATE BASE
ADJUSTMENT NO. 9 - CASH WORKING CAPITAL ALLOWANCE**

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		PER COMPANY	ADJUSTMENT	PER STAFF
1	Cash Working Capital Allowance	\$ 96,775	\$ (96,775)	\$ -

References:

- Column A: Company Schedule B-2
- Column B: Testimony, CSB
- Column C: Column [A] + Column [B]

SUMMARY OF REPRODUCTION COST NEW ("RCN") RATE BASE ADJUSTMENTS

LINE NO.	PLANT IN SERVICE	COMPANY AS FILED	[A]	[B] Adj. Post-Test Year Plant	[C] Inadequately Supported Plant	[D] Unrecorded Plant	[E] Expensed Plant	[F] Other Tangible Plant Recl. Class	[G] Retirements Plant	[H] Accumulated Depreciation	[I] CIAC	[J] Amortization of CIAC	[K] ADJ. No. 10 Cash Working Capital Allowance	[L]
1	No. - I Plant Description													
2	302 Franchises													
3	303 Land and Land Rights													84,633
4	304 Structures and Improvements				84,633									2,368,472
5	307 Wells and Springs		2,368,472											
6	309 Supply Mains													
7	310 Power Generation Equipment													
8	311 Pumping Equipment			84,115										
9	320 Water Treatment Equipment		1,216,357											
10	330 Distribution Reservoirs and Standpipes		568,450						(107,035)					
11	330.2 Pressure Tanks		2,369,625		(217,322)			26,239						
12	331 Transmission and Distribution Mains													
13	333 Services		8,249,988			818,365	4,656							
14	334 Meters and Meter Installations		2,397,843			167,002								
15	335 Hydrants		1,810,765		(4,043)				(4,500)					
16	336 Backflow Prevention Devices					142,607								
17	338 Other Plant and Miscellaneous Equipment													
18	340 Office Furniture and Equipment													
19	340.1 Computers and Software		19,273											19,273
20	341 Transportation Equipment		1,200				7,069							7,069
21	343 Tools, Shop, and Garage Equipment						6,512							7,712
22	344 Laboratory Equipment													
23	345 Power Operated Equipment													
24	346 Communication Equipment		115,725		(86,000)									
25	347 Miscellaneous Equipment													
26	348 Other Tangible Equipment							(26,239)						
27	Rounding													
28	Total Plant in Service		\$ 19,269,876	\$ 84,115	\$ (307,365)	\$ 1,212,607	\$ 18,236	\$ -	\$ (111,535)	\$ (12,007)	\$ -	\$ -	\$ -	\$ 20,165,935
29	Less: Accumulated Depreciation		\$ 6,937,536	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (12,007)	\$ -	\$ -	\$ -	\$ 6,925,529
30	Net Plant in Service		\$ 12,332,340	\$ 84,115	\$ (307,365)	\$ 1,212,607	\$ 18,236	\$ -	\$ (111,535)	\$ 12,007	\$ -	\$ -	\$ -	\$ 13,240,407
31														
32	LESS:													
33	Advances in Aid of Construction (AIAC)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34	Meter Deposits - Service Line & Meter Advances		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
35	Contributions in Aid of Construction (CIAC)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36	Less: Accumulated Amortization of CIAC		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
37	Net CIAC		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
38														
39														
40	Total Advances and Net Contributions		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
41	Customer Deposits		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
42	Accumulated Deferred Taxes		\$ 22,784	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,784
43														
44														
45	ADD:													
46	Cash Working Capital Allowance		\$ 96,775	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (96,775)	\$ -
47														
48	Total Rate Base		\$ 12,406,331	\$ 84,115	\$ (307,365)	\$ 1,212,607	\$ 18,236	\$ -	\$ (111,535)	\$ 12,007	\$ (4,347,289)	\$ 935,231	\$ (96,775)	\$ 9,805,565

RECONSTRUCT COST NEW ("RCN") Rate Base Adjustments

Line No.	Schedule Reference	Acct. No.		Original Cost	Handy-Whitman		Reconstruct Cost New
RCN Rate Base Adj. No. 1 - Post-Test Year Plant (Emergency Well Repair)							
1		311	Electric Pumping Equip	84,115	1	1	84,115
2	Sch CSB-5			0	1	1	0
3	Sch CSB-5			84,115			84,115
4	Sch CSB-5						
5							
RCN Rate Base Adj. No. 2 - Inadequately Supported Plant							
6		331	Mains	119,606	561	342	196,196
7	Sch CSB-5			13,444	561	357	21,126
8	Sch CSB-5			133,050			217,322
9	Sch CSB-5						
10							
11	Sch CSB-5	334	Meters	3,296	525	428	4,043
12							
13	Sch CSB-5	348	Power Operated Equip.	86,000	1	1	86,000
14							
15							
RCN Rate Base Adj. No. 3 - Unrecorded Plant							
16		304	Structures & Improvmnts	84,633	1	1	84,633
17	Engr Report						
18							
19	Sch CSB-6	331	Mains	234,613	561	357	368,678
20	Sch CSB-6			243,144	561	392	347,969
21	Sch CSB-6			76,153	561	420	101,719
22				553,910			818,365
23							
24	Sch CSB-6	333	Services (Mains)	53,774	483	315	82,453
25	Sch CSB-6			48,598	483	341	68,835
26	Sch CSB-6			11,777	483	362	15,714
27	Sch CSB-6			114,149			167,002
28							
29	Sch CSB-6	335	Hydrants (Mains)	49,166	672	550	60,072
30	Sch CSB-6			52,611	672	565	62,574
31	Sch CSB-6			18,119	672	610	19,961
32	Sch CSB-6			119,896			142,607
33							
34							
RCN Rate Base Adj. No. 4 - Expensed Plant							
35		340.1	Computers	7,069	1	1	7,069
36	Sch CSB-7						
37		341	Transportation Equipment	6,512	1	1	6,512
38		331	Mains	4,656	1	1	4,656
39							
RCN Rate Base Adj. No. 5 - Other Tangible Plant Reclassification							
40		311	Pumping Equip.	26,239	1	1	26,239
41	Sch CSB-8						
42							
43							
RCN Rate Base Adj. No. 6 - Plant Retirements							
44		311	Pumping Equip.	14,528	760	569	19,405
45	Sch CSB-9						
46	Sch CSB-9	311	Pumping Equip.	4,982	760	546	6,935
47	Sch CSB-9	311	Pumping Equip.	2,400	760	619	2,947
48	Sch CSB-9	311	Pumping Equip.	693	760	701	751
49	Sch CSB-9	311	Pumping Equip.	2,156	760	701	2,337
50	Sch CSB-9	311	Pumping Equip.	2,658	760	701	2,882
51	Sch CSB-9	311	Pumping Equip.	13,119	1	1	13,119
52				40,536			48,376
53							
54	PTY Pump	311	Pumping Equip.	84,115	530	760	58,659
55							
56	Sch CSB-9	334	Meters	4,500	1	1	4,500

RECONSTRUCT COST NEW RATE BASE ADJUSTMENT NO. 7 - ACCUMULATED DEPRECIATION

LINE NO.	NARUC Acct No.	NARUC PLANT DESCRIPTION PER SCH B-4	COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	304	Structures & Improvements	\$ -	\$ -	\$ -
2	307	Wells & Springs	\$ 2,103,420	\$ -	\$ 2,103,420
3	311	Pumping Equipment	\$ 641,846	\$ (152,165)	\$ 489,682
4	320	Water Treatment Equip	\$ 41,837	\$ -	\$ 41,837
5	330	Distribution, Reservoirs and Standpipes	\$ 662,512	\$ -	\$ 662,512
6	331	Transmission and Distribution Mains	\$ 1,938,047	\$ 95,359	\$ 2,033,406
7	333	Services	\$ 961,784	\$ 32,809	\$ 994,593
8	334	Meters and Meter Installations	\$ 112,517	\$ (4,500)	\$ 108,017
9	335	Hydrants	\$ 411,016	\$ 16,489	\$ 427,505
10	340	Office Furniture and Equipment	\$ 17,177	\$ -	\$ 17,177
11	341	Transportation Equipment	\$ 1,200	\$ -	\$ 1,200
12	345	Power Operated Equipment	\$ 43,556	\$ -	\$ 43,556
13	348	Other Tangible Equipment	\$ 2,624	\$ -	\$ 2,624
14		Total Accumulated Depreciation	\$ 6,937,536	\$ (12,007)	\$ 6,925,529

ACCUMULATED DEPRECIATION RELATED TO UNRECORDED MAINS, ACCT NO 331								
Data Request	Year Placed In Service	Acct No.	Description	RCN Plant Cost	Number of Interim Years	Depreciation Rate	Accumulated Depreciation	
21	CSB 3.1	2004	331	Mains	\$ 219,078	6.5	2.00%	\$28,480
22	CSB 3.2	2004	331	Mains	\$ 149,600	6.5	2.00%	\$19,448
23					\$ 368,678			\$47,928
25	CSB 3.1	2005	331	Mains	\$ 34,911	5.5	2.00%	\$3,840
26	CSB 3.2	2005	331	Mains	\$ 286,725	5.5	2.00%	\$31,540
27	CSB 3.2	2005	331	Mains	\$ 26,333	5.5	2.00%	\$2,897
28					\$ 347,969			\$38,277
30	CSB 1.2 & 3.3	2006	331	Mains	\$ 101,719	4.5	2.00%	\$9,155
31					\$818,365			\$95,359

ACCUMULATED DEPRECIATION RELATED TO UNRECORDED SERVICES, ACCT NO 333								
Data Request	Year Placed In Service	Acct No.	Description	RCN Plant Cost	Number of Interim Years	Depreciation Rate	Accumulated Depreciation	
38	CSB 3.1	2004	331	Services	\$ 29,017	6.5	3.33%	\$6,281
39	CSB 3.2	2004	331	Services	\$ 53,437	6.5	3.33%	\$11,566
40					\$ 82,453			\$17,847
42	CSB 3.1	2005	331	Services	\$ 17,667	5.5	3.33%	\$3,236
43	CSB 3.2	2005	331	Services	\$ 39,731	5.5	3.33%	\$7,277
44	CSB 3.2	2005	331	Services	\$ 11,438	5.5	3.33%	\$2,095
45					\$ 68,835			\$12,607
47	CSB 1.2 & 3.3	2006	331	Services	\$ 15,714	4.5	3.33%	\$2,355
48					\$167,002			\$32,809

ACCUMULATED DEPRECIATION RELATED TO UNRECORDED HYDRANTS, ACCT NO 335								
Data Request	Year Placed In Service	Acct No.	Description	RCN Plant Cost	Number of Interim Years	Depreciation Rate	Accumulated Depreciation	
54	CSB 3.1	2004	331	Hydrants	\$ 25,861	6.5	2.00%	\$3,362
55	CSB 3.2	2004	331	Hydrants	\$ 34,211	6.5	2.00%	\$4,447
56					\$ 60,072			\$7,809
58	CSB 3.1	2005	331	Hydrants	\$ 16,783	5.5	2.00%	\$1,846
59	CSB 3.2	2005	331	Hydrants	\$ 37,465	5.5	2.00%	\$4,121
60	CSB 3.2	2005	331	Hydrants	\$ 8,326	5.5	2.00%	\$916
61					\$ 62,574			\$6,883
63	CSB 1.2 & 3.3	2006	331	Hydrants	\$ 19,961	4.5	2.00%	\$1,796
64					\$142,607			\$16,489

ACCUMULATED DEPRECIATION RELATED TO RETIREMENTS							
Data Request	Reference	Acct No.	Description	RCN Plant Cost	Number of Interim Years	Depreciation Rate	Amnt Removed from Acc Depr
CSB 3.7	Schedule CSB-7	311	Pumping Equip	\$ (48,376)	n/a	n/a	\$ (48,376)
CSB 3.7	Schedule CSB-7	334	Meters	\$ (4,500)	n/a	n/a	\$ (4,500)
				\$ (52,876)			\$ (52,876)

ACCUMULATED DEPRECIATION ADJUSTMENT ON PUMPS FULLY DEPRECIATED IN SAME YEAR PLACED IN SERVICE											
Col A	Col B	Col C	Col D	Col E	Col F	Col G	Col H	Col I	Col J	Col K	Col L
Year	Reference	Acct No.	Description	RCN Plant Cost	Number of Interim Years	Depreciation Rate	Depr Expense	Col E x Col F x Col G	Recorded Depreciation	Col H - Col I	Difference
2003	Exhibit RLJ-DT2, Sch B-2.1, P4	311	Pumping Equip	\$ 16,837	7.5	12.5%	\$ 15,785	\$ 16,837	\$ (1,052)		
2004	Exhibit RLJ-DT2, Sch B-2.1, P5	311	Pumping Equip	\$ 41,287	6.5	12.5%	\$ 33,546	\$ 41,287	\$ (7,741)		
2005	Exhibit RLJ-DT2, Sch B-2.1, P6	311	Pumping Equip	\$ 53,693	5.5	12.5%	\$ 36,914	\$ 53,693	\$ (16,779)		
2010	Data Requ Resp 1.3 Invoice ID #27	311	Pumping Equip	\$ 28,447	2.5	12.5%	\$ 8,890	\$ 28,447	\$ (19,558)		
				\$ 140,264			\$ 95,134	\$ 140,264	\$ (45,130)		

ACCUMULATED DEPRECIATION RELATED TO POST-TEST YEAR RELATED RETIREMENT				
Year	Reference	Acct No.	Description	RCN Cost
2000	RCN Rate Adj No. 1	311	Pumping Equip	\$ (58,659)

Column A: Company Exhibit RLJ-DT2, Schedule B-2.1, Page 12
Column B: Testimony, CSB
Column C: Column [A] + Column [B]

**RECONSTRUCT COST NEW RATE BASE
ADJUSTMENT NO. 8 - CONTRIBUTIONS IN AID OF CONSTRUCTION ("CIAC")**

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		PER COMPANY	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	CIAC from Last Rate Case	\$ -	\$ 3,205,549	\$ 3,205,549
2	CIAC from Intervening Years	\$ -	\$ 1,141,740	\$ 1,141,740
3	Total CIAC	\$ -	\$ 4,347,289	\$ 4,347,289

RCN AIAC From Last Rate Case		Amount
CSB 1.9	Fulton Homes	\$ 3,397,316
CSB 1.9	Dehaven	\$ 174,089
CSB 1.9	Beazer	\$ 715,886
CSB 1.9	Payne	\$ 4,511
CSB 1.9	School District	\$ 1,835,889
CSB 1.9	Deer Valley Service	\$ 105,748
CSB 1.9	Payne Resources	\$ 61,191
		\$ 6,294,630
RCN Refunds on AIAC		
CSB 1.9	Refunds on Fulton AIAC	\$ (2,550,843)
CSB 1.9	Refunds on Dehaven AIAC	\$ (66,103)
CSB 1.9	Refunds on Beazer AIAC	\$ (361,704)
CSB 1.9	Refunds on School District	\$ (89,162)
CSB 1.9	Refunds on Deer Valley Service	\$ (6,679)
CSB 1.9	Refunds on Payne Resources	\$ (14,591)
Total Refund Payments on AIAC Contracts		\$ (3,089,081)
Amount transferred to CIAC		\$ 3,205,549

AIAC Added During Intervening Years		RCN Amount	
CSB 1.10 & 3.1	Arrowhead Ranch Office Park, LLC	\$ 343,316	
CSB 1.11 & 3.2	Cody Farms	\$ 363,922	
CSB 1.11 & 3.2	Riverstone Estates (Columbia I & II)	\$ 283,344	
CSB 1.11 & 3.2	Riverstone Estates (Columbia I & II)	\$ 33,475	
CSB 1.12 & 3.3	Arrowhead Ranch Industrial Park	\$ 137,393	
		\$ 1,161,450	
Refunds on AIAC			
CSB 1.10 (d)	Refunds on Arrowhead Ranch Office	\$ (7,815)	2009 per CSB 1.10
CSB 1.11 (d)	Refunds on Cody Farms	\$ -	
CSB 1.11 (d)	Refunds on Riverstone (Columbia)	\$ (4,401)	2006 per Sch B-2.1, p.7
CSB 1.12 (d)	Refunds on Arrowhead Ranch Office	\$ (7,494)	2009 per Sch B-2.1, p.10
		\$ (19,710)	
Amount transferred to CIAC		\$ 1,141,740	

References:

- Column A: Company Schedule B-1
- Column B: Testimony, CSB; Data Request Response CSB 2-11
- Column C: Column [A] + Column [B]

**RECONSTRUCT COST NEW RATE BASE
ADJUSTMENT NO. 9 - AMORTIZATION OF CONTRIBUTIONS IN AID OF CONSTRUCTION ("CIAC")**

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	[C] STAFF AS ADJUSTED			
1	Amortization of CIAC	\$ -	\$ 935,231	\$ 935,231			
2							
3							
4							
5	CALCULATION OF AMORTIZATION OF CIAC						
6	Staff Reference Schedule	AIAC Contract Name	Year Transferred To CIAC (Per CSB 1.9)	Number of Interim Years	CIAC Amortization Rate Sch B-2.1, P.12, Line 38		
7					Amortization of CIAC		
8		Amount					
9	CSB-18	Fulton Homes \$ 3,397,316	2005	6.5	2.3497%	\$ 518,874	
10	CSB-18	Dehaven \$ 174,089	2007	4.5	2.3497%	\$ 18,408	
11	CSB-18	Beazer \$ 715,886	2007	4.5	2.3497%	\$ 75,695	
12	CSB-18	Payne \$ 4,511	2008	3.5	2.3497%	\$ 371	
13	CSB-18	School District \$ 1,835,889	2006	5.5	2.3497%	\$ 237,258	
14	CSB-18	Deer Valley Service \$ 105,748	2006	5.5	2.3497%	\$ 13,666	
15	CSB-18	Payne Resources \$ 61,191	2008	3.5	2.3497%	\$ 5,032	
16		\$ 6,294,630				\$ 869,304	
17							
18							
19	CALCULATION OF AMORTIZATION OF CIAC FOR MAINS, ACCT. NO. 331						
20	Data Request Responses	AIAC Contract Name	Acct No. 331 Mains	Year Transferred To CIAC	Number of Interim Years	CIAC Amortization Rate Sch B-2.1, P.12	Amortization of CIAC
21							
22							
23	CSB 1.10e & 3.1	Arrowhead Ranch Office Park,I \$ 253,988	2009	2.5	2.0000%	\$ 12,699	
24	CSB 1.11d & 3.2	Cody Farms \$ 286,725	2011	0.5	2.0000%	\$ 2,867	
25	CSB 1.11d & 3.2	Riverstone Estates (Columbia I & II) \$ 175,933	2008	5.5	2.0000%	\$ 19,353	
26	CSB 1.12d & 3.3	Arrowhead Ranch Industrial Park \$ 101,719	2009	2.5	2.0000%	\$ 5,086	
27		\$ 818,365				\$ 40,005	
28							
29							
30	CALCULATION OF AMORTIZATION OF CIAC FOR SERVICES, ACCT. NO. 333						
31	Data Request Responses	AIAC Contract Name	Acct No. 333 Services	Year Transferred To CIAC	Number of Interim Years	CIAC Amortization Rate Sch B-2.1, P.12	Amortization of CIAC
32							
33							
34	CSB 1.10e & 3.1	Arrowhead Ranch Office Park,I \$ 46,684	2009	2.5	3.33%	\$ 3,886	
35	CSB 1.11d & 3.2	Cody Farms \$ 39,731	2011	0.5	3.33%	\$ 662	
36	CSB 1.11d & 3.2	Riverstone Estates (Columbia I & II) \$ 64,874	2008	5.5	3.33%	\$ 11,882	
37	CSB 1.12d & 3.3	Arrowhead Ranch Industrial Park \$ 15,714	2009	2.5	3.33%	\$ 1,308	
38		\$ 167,003				\$ 17,738	
39							
40							
41	CALCULATION OF AMORTIZATION OF CIAC FOR HYDRANTS, ACCT. NO. 335						
42	Data Request Responses	AIAC Contract Name	Acct No. 335 Hydrants	Year Transferred To CIAC	Number of Interim Years	CIAC Amortization Rate Sch B-2.1, P.12	Amortization of CIAC
43							
44							
45	CSB 1.10e & 3.1	Arrowhead Ranch Office Park,I \$ 42,644	2009	2.5	2.0000%	\$ 2,132	
46	CSB 1.11d & 3.2	Cody Farms \$ 37,465	2011	0.5	2.0000%	\$ 375	
47	CSB 1.11d & 3.2	Riverstone Estates (Columbia I & II) \$ 42,537	2008	5.5	2.0000%	\$ 4,679	
48	CSB 1.12d & 3.3	Arrowhead Ranch Industrial Park \$ 19,961	2009	2.5	2.0000%	\$ 998	
49		\$ 142,607				\$ 8,184	

References:

Column A: Company Schedule C-1
Column B: Testimony, CSB
Column C: Column [A] + Column [B]

New River Utility Company
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Schedule CSB-20

**RECONSTRUCT COST NEW RATE BASE
ADJUSTMENT NO. 10 - CASH WORKING CAPITAL ALLOWANCE**

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		PER COMPANY	ADJUSTMENT	PER STAFF
1	Cash Working Capital Allowance	\$ 96,775	\$ (96,775)	\$ -

References:

- Column A: Company Schedule B-2
- Column B: Testimony, CSB
- Column C: Column [A] + Column [B]

OPERATING INCOME - TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
REVENUES:						
1	Metered Water Sales	\$ 1,234,701		\$ 1,234,701	\$ 316,657	\$ 1,551,358
2	Water Sales - Unmetered	-	-	-	-	-
3	Other Operating Revenues	25,727	-	25,727	3,060	28,787
4	Total Revenues	\$ 1,260,428	\$ -	\$ 1,260,428	\$ 319,717	\$ 1,580,145
EXPENSES:						
7	Salaries and Wages	\$ 77,200	\$ -	\$ 77,200	\$ -	\$ 77,200
8	Salaries and Wages-Officers & Directors	210,000	-	210,000	-	210,000
9	Employee Pensions & Benefits	22,326	14,400	36,726	-	36,726
10	Purchased Power	159,775	-	159,775	-	159,775
11	Chemicals	15,338	(11,957)	3,381	-	3,381
12	Repairs and Maintenance	108,314	(56,273)	52,041	-	52,041
13	Office Supplies Expense	-	15,466	15,466	-	15,466
14	Contractual Services - Accounting	8,428	(2,423)	6,005	-	6,005
15	Contractual Services - Legal	23,128	(16,231)	6,897	-	6,897
16	Contractual Services - Management Fees	75,000	(75,000)	-	-	-
17	Contractual Services - Testing	-	10,636	10,636	-	10,636
18	Contractual Services - Other	54,479	(41,768)	12,712	-	12,712
19	Rent - Building	-	26,580	26,580	-	26,580
20	Rent - Equipment	24,000	(13,164)	10,836	-	10,836
21	Transportation Expense	26,580	(13,329)	13,251	-	13,251
22	Insurance - General Liability	6,003	-	6,003	-	6,003
23	Insurance - Workman's Compensation	872	-	872	-	872
24	Reg. Comm. Exp. - Rate Case	50,000	-	50,000	-	50,000
25	Reg. Comm. Exp. - Other	-	-	-	-	-
26	Bad Debt Expense	7,688	(5,125)	2,563	-	2,563
27	Miscellaneous Expense	61,587	(16,790)	44,797	-	44,797
28	Depreciation Expense	245,585	(186,934)	58,651	-	58,651
29	Taxes Other Than Income	19,638	-	19,638	-	19,638
30	Property Taxes	60,348	-	60,348	5,103	65,451
31	Income Taxes	510	110,595	111,105	119,011	230,116
32	Interest Expense - Customer Deposits	-	1,367	1,367	-	1,367
33	Total Operating Expenses	\$ 1,256,799	\$ (259,950)	\$ 996,849	\$ 124,114	\$ 1,120,963
34						
35	Operating Income (Loss)	\$ 3,629	\$ 259,950	\$ 263,579	\$ 192,543	\$ 459,182

References:

- Column (A): Company Schedule C-1
- Column (B): Schedule CSB-16
- Column (C): Column (A) + Column (B)
- Column (D): Schedules CSB-1 and CSB-2
- Column (E): Column (C) + Column (D)

SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	(A) COMPANY AS FILED	(B) ADJ #1 Employee Benefits Expense Ref. Sch CSB-23	(C) ADJ #2 Chemicals Expense Ref. Sch CSB-24	(D) ADJ #3 Repair & Maintenance Expense Ref. Sch CSB-25	(E) ADJ #4 Office Supplies Expense Ref. Sch CSB-26	(F) ADJ #5 Contractual Services Accounting Ref. Sch CSB-27	(G) ADJ #6 Contractual Services Legal Ref. Sch CSB-28	(H) ADJ #7 Contractual Services Management Fees Ref. Sch CSB-29	(I) ADJ #8 Contractual Services Water Testing Ref. Sch CSB-30	(J) ADJ #9 Contractual Services Other Ref. Sch CSB-31	(K) Subtotal
1	REVENUES:											
2	Metered Water Sales	\$ 1,234,701										\$ 1,234,701
3	Water Sales - Unmetered											
4	Other Operating Revenues	25,727										25,727
5	Total Revenues	\$ 1,260,428										\$ 1,260,428
6	OPERATING EXPENSES:											
7	Salaries and Wages	\$ 77,200										\$ 77,200
8	Salaries and Wages-Officers & Directors	210,000										210,000
9	Employee Pensions & Benefits	22,326	14,400									36,726
10	Purchased Power	159,775										159,775
11	Chemicals	15,338		(11,957)								3,381
12	Repairs and Maintenance	108,314			(56,273)							52,041
13	Office Supplies Expense	8,428				15,466						23,894
14	Contractual Services - Accounting	23,128					(2,423)					20,705
15	Contractual Services - Legal	75,000						(16,231)				58,769
16	Contractual Services - Management Fees								(75,000)			
17	Contractual Services - Testing									10,636		10,636
18	Contractual Services - Other	54,479									(41,768)	12,711
19	Rent - Buildings											
20	Rent - Equipment	24,000										24,000
21	Transportation Expense	26,580										26,580
22	Insurance - General Liability	6,003										6,003
23	Insurance - Workman's Compensation	872										872
24	Reg. Comm. Exp. - Rate Case	50,000										50,000
25	Reg. Comm. Exp. - Other											
26	Bad Debt Expense	7,688										7,688
27	Miscellaneous Expense	61,587										61,587
28	Depreciation Expense	245,585										245,585
29	Taxes Other Than Income	19,638										19,638
30	Property Taxes	60,348										60,348
31	Income Taxes	510										510
32	Interest Expense - Customer Deposits											
33	Total Operating Expenses	\$ 1,256,799	\$ 14,400	\$ (11,957)	\$ (56,273)	\$ 15,466	\$ (2,423)	\$ (16,231)	\$ (75,000)	\$ 10,636	\$ (41,768)	\$ 1,093,649
34												
35	Operating Income (Loss)	\$ 3,629	\$ (14,400)	\$ 11,957	\$ 56,273	\$ (15,466)	\$ 2,423	\$ 16,231	\$ 75,000	\$ (10,636)	\$ 41,768	\$ 166,779

OPERATING INCOME ADJUSTMENT NO. 1 - EMPLOYEE PENSIONS AND BENEFITS

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Employee Pensions and Benefits	\$ 22,326	\$ -	\$ 22,326
2	Reclassified from Management Fees	-	14,400	14,400
3	Total	\$ 22,326	\$ 14,400	\$ 36,726

References:

- Column A: Company Schedule C-2
- Column B: Testimony, CSB; Data Request CSB 1.20 c
- Column C: Column [A] + Column [B]

New River Utility Company
Docket No. W-01737A-12-0478
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Schedule CSB-24

OPERATING INCOME ADJUSTMENT NO. 2 - CHEMICALS EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Chemicals Expense	\$ 15,338	\$ (11,957)	\$ 3,381

References:

- Column A: Company Schedule C-2
- Column B: Testimony, CSB; Data Request CSB 1.21
- Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 3 - REPAIRS AND MAINTENANCE EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	2011 Actual Repairs & Maintenance Expense	\$ 76,981	\$ -	\$ 76,981
2	Inadequately Supported Credit Card Purchases	-	(24,475)	(24,475) From Line 43
3	Company Pro forma Adj for Tank Painting	31,333	(31,333)	-
4	Staff Pro forma Adj for Arsenic Media	-	15,000	15,000 From Line 53
5	Office Suppl Exp Incorrectly Included In R&M	-	(15,466)	(15,466) CSB 1.22
6	Total Repairs & Maintenance	\$ 108,314	\$ (56,273)	\$ 52,041

Repair & Maintenance Related Purchases Made On Personal Credit Card

CSB 1.22 & CSB 6.7

11	Home Depot	\$ 1,137.37		
12	Lowe's	8.77		
13	A&G Turf	321.59		
14	QT	443.06		
15	AZ Lawn King	26.74		
16	Wagner Equipment	963.29		
17	Dunn Edwards	24.40		
18	Amerigas Propane	70.70		
19	USPS	461.49		
20	Harbor Freight	119.98		
21	Ace Hardware	564.23		
22	Dealer's Tire Supply	621.39		
23	Hardware Plus	29.40		
24	S&S Tire Peoria	1,174.78		
25	Border's Turf & Tractor	32.83		
26	Danny's Family Car Wash	82.99		
27	Bigham Equipment	310.33		
28	Fed Ex	37.32		
29	Sprinkler World	761.49		
30	WW Grainger	113.84		
31	Chevy's 2040	58.99		
32	Office Max	472.17		
33	AOL Service	310.80		
34	Ever Ready Glass	195.00		
35	Firestone	952.50		
36	Thunderbird Automotive	32.55		
37		9,328.00	Total To Be Allocated	
38	x	33.33%		
39	Allowed Personal Credit Card Purchases	3,109.02	33.33% To Owner; 33.33% to Cody Farms, 33.33% New River	
40				
41		\$ 27,583.80	Total Purchases on Personal Credit Card	
42		\$ (3,109.02)	Allocation to New River	
43	Staff's Adjustment	\$ 24,474.78	Amount Disallowed	

**Normalized
Arsenic Media
Costs
CSB 3.9 & 5.3**

51	Actual Cost of Arsenic Media	\$ 75,000
52	Divided by	5 Years
53		\$ 15,000

References:

- Column A: Company Schedule C-2
- Column B: Testimony, CSB; Data Request CSB 1.22 & CSB 3.9
- Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 4 - OFFICE SUPPLIES EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Office Supplies Expense	\$ -	\$ -	\$ -
2	To Reclassify from Rep & Maint to Off Suppl	-	15,466	15,466
3	Total	\$ -	\$ 15,466	\$ 15,466

References:

- Column A: Company Schedule C-1
- Column B: Testimony, CSB; Data Request CSB 1.22
- Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 5 - CONTRACTUAL SERVICES, ACCOUNTING

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Contractual Services, Accounting	\$ 8,428	\$ (2,423)	\$ 6,005
2				
3				
4				
5				
6				
7	Work performed for billcounts		\$ 2,423	CSB 1.25

Thomas Bourassa Invoice

References:

- Column A: Company Schedule C-1 & E-2
- Column B: Testimony, CSB; Data Request CSB 2-16
- Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 6 - CONTRACTUAL SERVICES, LEGAL

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Contractual Services, Legal	\$ 23,128	\$ -	\$ 23,128
2	Incorrectly Booked to New River (CSB 1.26)	-	(2,005)	(2,005)
3	Incorrectly Booked to New River (CSB 6.5)	-	(419)	(419)
4	To Remove Unsupported Cost (CSB 6.5)	-	(1,716)	(1,716)
5	To Normalize Costs Related to Payment Dispute	-	(7,435)	(7,435)
6	To Capitalize Costs Related To Interconnection	-	(4,656)	(4,656)
7		\$ 23,128	\$ (16,231)	\$ 6,897

Vendor	Description	Amount
Fennemore Craig	Interconnection Agreement	\$ 3,891
Riley Carlock	Interconnection Agreement	\$ 765
		\$ 4,656

	Normalized Costs	
Legal Costs Related to Payment Dispute With Customer	\$ 7,531	CSB 6.6
Legal Costs Related To Title To Well	\$ 3,621	CSB 6.6
Total Costs to Be Normalized	\$ 11,152	
Normalized using three years	3	
Normalized amount	\$ 3,717	
Total Costs to Be Normalized	\$ 11,152	
Less: Normalized amount	\$ (3,717)	
Staff's Adjustment	\$ 7,435	

References:

- Column A: Company Schedule C-1 & E-2
- Column B: Testimony, CSB; Data Request CSB 1.26
- Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 7 - CONTRACTUAL SERVICES, MANAGEMENT FEES

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Contractual Services, Management Fees	\$ 75,000	\$ -	\$ 75,000
2	To Reclassify Employee Benefits (Employee Housing)	-	(14,400)	(14,400)
3	To Reclassify Rental of Workshop Space	-	(12,000)	(12,000)
4	To Reclassify Rental of Bus. Off. & 87th Ave Booster Plant Prop	-	(48,600)	(48,600)
5		\$ 75,000	\$ (75,000)	\$ -
6				
7				

Data Request	Amount	Description
CSB 1.27 (a)	\$ 75,000	Management Fees
CSB 1.20	\$ (14,400)	Employee Benefit (Housing)
CSB 1.16	\$ (12,000)	Rental of Workshop Space
CSB 6.1	\$ (48,600)	Rental of Business Off & 87th Ave Booster Plant Property
	\$ -	

References:

- Column A: Company Schedule C-1
- Column B: Testimony, CSB
- Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 8 - CONTRACT SRVCS., WATER TESTING EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Contractual Services - Testing	\$ -	\$ -	\$ -
2	Reclassified from Contractual Srvc, Other	-	47,950	47,950
3	To Remove Company's Water Testing Exp	-	(47,950)	(47,950)
4	To Reflect Staff's Water Testing Expense	-	10,636	10,636
5	Total	\$ -	\$ 10,636	\$ 10,636

References:

- Column A: Company Schedule C-1
- Column B: Testimony, CSB; Data Request CSB 1.29
- Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 9 - CONTRACTUAL SERVICES, OTHER

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Contractual Services, Other	\$ 54,479	\$ -	\$ 54,479
2	Reclassified from Chemicals Expense	-	11,957	11,957
3	To Reclassify Water Testing Expenses	-	(47,950)	(47,950) From Line 15
4	To Remove Legal Costs Related to Affiliate	-	\$ (5,775)	(5,775) From Line 8
5		\$ 54,479	\$ (41,768)	\$ 12,712
6				
7				
8	Griffin & Associates (CSB 1.29)	\$	5,775	Legal Expense
9				
10	Jack Muir Enterprises (CSB 1.29)	\$	10,336	Water Testing Exp
11	Jack Muir Enterprises (CSB 1.29)	\$	9,977	Water Testing Exp
12	Jack Muir Enterprises (CSB 1.29)	\$	8,837	Water Testing Exp
13	Jack Muir Enterprises (CSB 1.29)	\$	9,656	Water Testing Exp
14	Jack Muir Enterprises (CSB 1.29)	\$	9,143	Water Testing Exp
15			\$ 47,950	

References:

Column A: Company Schedule C-2

Column B: Testimony, CSB; Company Data Request Response to CSB 1.29

Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 10 - RENT, BUILDINGS

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Rent, Buildings	\$ -	\$ -	\$ -
2	Reclassified from Mgmt Fees, Workshop		12,000	12,000
3	To Adjust to Staff's Recommended Costs		(9,000)	(9,000)
4	Staff's Recommended Workshop Rent Costs	-	3,000	3,000
5				From Line 20
6	Reclassified from Mgmt Fees, Bus. Off. & 87th Ave Booster Plant Prop	-	48,600	48,600
7	To Adjust to Staff's Recommended Costs		(25,020)	(25,020)
8	Staff's Recommended Rent Costs for Business Office	-	23,580	23,580
9				From Line 32
10	Total for Workshop and Business Office	-	26,580	26,580

Calculation of Workshop Rental Cost

16	Cost for Renting 4,000 sq. ft. Workshop Facility	\$ 12,000	Per Year
17	Divided By	4,000	Square Feet
18	Cost Per Square Foot	\$ 3	
19	Multiplied by Staff Recommended Squ Footage	1,000	Square Feet
20	Staff's Recommended Annual Cost	\$ 3,000	For Workshop
22	Annual Workshop Facility Cost	\$ 12,000	Per Company
23	Less:	\$ 3,000	Staff's Recommended Annual Cost
24		\$ 9,000	Staff's Adjustment

Calculation of Business Off. Rental Cost

30	Staff's Recommended	\$ 1,965	Per Month
31	Multiplied by	12	Months
32	Staff's Recommended Annual Cost	\$ 23,580	for Business Office
34	Annual Workshop Facility Cost	\$ 48,600	Per Company
35	Less:	\$ 23,580	Staff's Recommended Annual Cost
36		\$ 25,020	Staff's Adjustment

References:

- Column A: Company Schedule C-1
- Column B: Testimony, CSB; Data Request CSB 6.1 & 6.2
- Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 11 - RENT, EQUIPMENT (VEHICLES)

LINE NO.	DESCRIPTION	[A]		[B]		[C]	
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED			
1	Rent, Equipment (Vehicles)	\$ 22,000	\$ (13,164)	\$ 8,836			
2							
3							
4							
5		Estimated		Avg. Est.			
6		Monthly	Work	Number of			
7		Lease Cost	Days In	Days Used		Monthly	Annual
8		CSB 2.2	Month	Per Month		Cost	Cost
9	Bob Fletcher's Truck	\$ 400	22	\$ 18.18	11	\$ 200.00	\$ 2,400.00
10	Karen Fletcher's Truck	\$ 400	22	\$ 18.18	0	\$ -	\$ -
11	Florintino Ibbera's Truck	\$ 400	22	\$ 18.18	22	\$ 400.00	\$ 4,800.00
12	Tracy Dagleich's Truck	\$ 200	22	\$ 9.09	11	\$ 100.00	\$ 1,200.00
13	1997 Trailer	\$ 100	22	\$ 4.55	3	\$ 13.64	\$ 163.64
14	1999 Trailer	\$ 100	22	\$ 4.55	1	\$ 4.55	\$ 54.55
15		\$ 1,600				\$ 718.18	\$ 8,618.18
16							
17	1989 Forklift	\$ 400	22	\$ 18.18	1	\$ 18.18	\$ 218.18
18	Total	\$ 2,000				\$ 736.36	\$ 8,836.36

References:

- Column A: Company Schedule C-1
- Column B: Testimony, CSB; Data Request CSB 2-2
- Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 12 - TRANSPORTATION EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Transportation Expense, Gas & Oil Costs	\$ 17,314	\$ -	\$ 17,314
2	To Remove Oil & Gas Costs of Disallowed Truck	-	(2,797)	(2,797) From line 20
3	Transportation Expense, Repair & Maintenance	9,265	-	9,265
4	To Remove Costs of the Affiliate	-	(4,020)	(4,020) CSB 6.6
5	To Capitalize Engine Rebuild Costs	-	(6,512)	(6,512) CSB 6.6
6		<u>\$ 26,580</u>	<u>\$ (13,329)</u>	<u>\$ 13,251</u>
7				
8				
9	Gas and Oil Costs for all Vehicles	\$ 17,314		
10	Less: Costs to be Normalized	\$ (2,106)		
11	Less: Costs to be Normalized	<u>\$ (4,021)</u>		
12	Costs for 4 Vehicles	\$ 11,188		
13	Divided by		4 Vehicles	
14		\$ 2,797	Oil and Gas Costs Per Vehicle	
15		x 3	Vehicles	
16		<u>\$ 8,391</u>	Oil and Gas Costs for 3 Vehicles	
17				
18		\$ 11,188	Total Gas and Oil Purchases	
19		<u>\$ 8,391</u>	Amount Allowed from line 16	
20	Staff's Adjustment	\$ 2,797	Oil and Gas costs disallowed for truck	
21				

References:

- Column A: Company Schedule C-1
- Column B: Testimony, CSB; Data Request CSB 1.31 and 6.6
- Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 14 - MISCELLANEOUS EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Miscellaneous Expense	\$ 61,587	\$ -	\$ 61,587
2	To Remove Meals and Entertainment	-	(13,427)	(13,427)
4	To Remove Donations	-	(3,363)	(3,363)
5	To Remove Business Promotions Costs	-	(3,597)	(3,597)
6		\$ 61,587	\$ (16,790)	\$ 44,797
7				
8		Data Request CSB 1.19		
9		Meals and Entertainment	Donations	Business Promotions
10				
11		\$ 550.00	\$ 1,000.00	\$ 2,096.81
12		300.00	500.00	1,000.00
13		6,500.00	1,313.02	500.00
14		1,048.80	500.00	3,596.81
15		226.25	50.00	
16		137.77	\$ 3,363	
17		181.85		
18		828.36		
19		364.71		
20		311.42		
21		216.77		
22		417.49		
23		108.84		
24		56.08		
25		460.47		
26		656.40		
27		427.29		
		45.72		
		460.85		
		128.16		
		\$ 13,427		

References:

- Column A: Company Schedule C-1
- Column B: Testimony, CSB;
- Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 15 - DEPRECIATION EXPENSE ON ORIGINAL COAST TEST YEAR PLANT

LINE NO.	DESCRIPTION	[A] PLANT In SERVICE Per Staff	[B] NonDepreciable or Fully Depreciated PLANT	[C] DEPRECIABLE PLANT (Col A - Col B)	[D] DEPRECIATION RATE	[E] DEPRECIATION EXPENSE (Col C x Col D)
1	302 Franchises	\$ -	\$ -	\$ -	0.00%	\$ -
2	303 Land and Land Rights	75,181	(75,181)	-	0.00%	-
3	304 Structures and Improvements	84,633	-	84,633	3.33%	2,818
4	306 Lake, River, and Other Intakes	-	-	-	2.50%	-
5	307 Wells and Springs	795,021	-	795,021	3.33%	26,474
6	309 Supply Mains	-	-	-	2.00%	-
7	310 Power Generation Equipment	-	-	-	5.00%	-
8	311 Pumping Equipment	950,790	(812,922)	137,868	12.50%	17,233
9	320 Water Treatment Equipment	383,055	-	383,055	3.33%	12,756
10	330 Distribution Reservoirs and Standpipes	1,046,963	-	1,046,963	2.22%	23,243
11	330.2 Pressure Tanks	-	-	-	5.00%	-
12	331 Transmission and Distribution Mains	1,827,529	-	1,827,529	2.00%	36,551
13	333 Services	350,474	-	350,474	3.33%	11,671
14	334 Meters and Meter Installations	118,343	-	118,343	8.33%	9,858
15	335 Hydrants	313,089	-	313,089	2.00%	6,262
16	336 Backflow Prevention Devices	-	-	-	6.67%	-
17	339 Other Plant and Miscellaneous Equipment	-	-	-	6.67%	-
18	340 Office Furniture and Equipment	19,273	-	19,273	6.67%	1,286
19	340.1 Computers and Software	7,069	-	7,069	20.00%	1,414
20	341 Transportation Equipment	7,712	(1,200)	6,512	20.00%	1,302
21	343 Tools, Shop, and Garage Equipment	-	-	-	5.00%	-
22	344 Laboratory Equipment	-	-	-	10.00%	-
23	345 Power Operated Equipment	29,725	-	29,725	5.00%	1,486
24	346 Communication Equipment	-	-	-	10.00%	-
25	347 Miscellaneous Equipment	-	-	-	10.00%	-
26	348 Other Tangible Equipment	-	-	-	10.00%	-
27	Total Plant	\$ 6,008,856	\$ (889,303)	\$ 5,119,553		\$ 152,353

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Composite Depreciation Rate (Depr Exp / Depreciable Plant):	2.98%
CIAC: \$	3,148,684
Amortization of CIAC (Line 31 x Line 32): \$	93,702
Depreciation Expense Before Amortization of CIAC: \$	152,353
Less Amortization of CIAC: \$	93,702
Test Year Depreciation Expense - Staff: \$	58,651
Depreciation Expense - Company:	245,585
Staff's Total Adjustment: \$	(186,934)

Year Placed In Service	Acct. No. 311 Pumping Equip.
2003	\$ 12,096
2004	\$ 30,911
2005	\$ 43,166
2010	\$ 26,239
	\$ 112,412

References:

- Column [A]: Schedule CSB-4
- Column [B]: From Column [A]
- Column [C]: Column [A] - Column [B]
- Column [D]: Engineering Staff Report
- Column [E]: Column [C] x Column [D]

OPERATING INCOME ADJUSTMENT NO. 16 - INCOME TAX ALLOWANCE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Income Tax Allowance on Test Year Revenue	\$ 510	\$ 110,595	\$ 111,105

From Sch CSB-2, P.1

References:

- Column A: Company Schedule C-2
- Column B: Testimony, CSB; Schedule CSB-2
- Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 17 - INTEREST EXPENSE ON CUSTOMER DEPOSITS

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Interest Expense on Customer Deposits	\$ -	\$ 1,367	\$ 1,367

Customer Deposits Balance	\$	22,784
Multiplied by		6.0%
	\$	<u>1,367</u>

References:

- Column A: Company Schedule C-2
- Column B: Testimony, CSB; Data Request CSB 1.21
- Column C: Column [A] + Column [B]

New River Utility Company
Docket No. W-01737A-12-0478
Test Year Ended December 31, 2011

Schedule CSB-40

OPERATING INCOME ADJUSTMENT NO. 10 - PROPERTY TAX EXPENSE

LINE NO.	Property Tax Calculation	[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues	\$ 1,260,428	\$ 1,260,428
2	Weight Factor	<u>2</u>	<u>2</u>
3	Subtotal (Line 1 * Line 2)	2,520,856	\$ 2,520,856
4	Staff Recommended Revenue, Per Schedule CSB-1	<u>1,260,428</u>	\$ 1,596,682
5	Subtotal (Line 4 + Line 5)	3,781,284	4,117,538
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	1,260,428	\$ 1,372,513
8	Department of Revenue Mutilplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	2,520,856	\$ 2,745,026
10	Plus: 10% of CWIP -	-	-
11	Less: Net Book Value of Licensed Vehicles	-	\$ -
12	Full Cash Value (Line 9 + Line 10 - Line 11)	2,520,856	\$ 2,745,026
13	Assessment Ratio	20.0%	20.0%
14	Assessment Value (Line 12 * Line 13)	504,171	\$ 549,005
15	Composite Property Tax Rate	<u>11.9697%</u>	<u>11.9697%</u>
			\$ -
16	Staff Test Year Adjusted Property Tax (Line 14 * Line 15)	\$ 60,348	
17	Company Proposed Property Tax	<u>60,348</u>	
18	Staff Test Year Adjustment (Line 16-Line 17)	<u>\$ (0)</u>	
19	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		\$ 65,714
20	Staff Test Year Adjusted Property Tax Expense (Line 16)		\$ 60,348
21	Increase in Property Tax Expense Due to Increase in Revenue Requirement		<u>\$ 5,366</u>
22	Increase to Property Tax Expense		\$ 5,366
23	Increase in Revenue Requirement		336,254
24	Increase to Property Tax per Dollar Increase in Revenue (Line19/Line 20)		1.595960%

Monthly Minimum Charge

	Present	Company Proposed Rates	Staff Recommended Rates
<u>Meter Size (All Classes):</u>			
5/8 x 3/4 inch	\$ 7.50	\$ 14.00	\$ 10.00
3/4 inch	7.50	14.00	10.00
1 inch	18.75	35.00	21.00
1 1/2 inch	37.50	70.00	43.00
2 inch	60.00	112.00	68.00
3 inch	120.00	224.00	136.00
4 inch	190.00	350.00	212.00
6 inch	375.00	700.00	425.00
8 inch	750.00	1,400.00	680.00

Gallons Included In Monthly Minimum Charge

0 0 0

Commodity Charge - Per 1,000 Gallons

5/8" x 3/4" Meter

First 12,000 gallons	\$ 1.2000	N/A	N/A
12,000 to 18,000 gallons	1.4000	N/A	N/A
Over 18,000 gallons	1.6000	N/A	N/A
First 4,000 gallons	N/A	1.1000	N/A
4,001 to 10,000 gallons	N/A	2.5800	N/A
Over 10,000 gallons	N/A	3.2000	N/A
First 4,000 gallons	N/A	N/A	\$ 1.0000
4,001 to 11,000 gallons	N/A	N/A	2.0000
Over 11,000 gallons	N/A	N/A	3.1200

3/4" Meter

First 12,000 gallons	\$ 1.2000	N/A	N/A
12,000 to 18,000 gallons	1.4000	N/A	N/A
Over 18,000 gallons	1.6000		
First 4,000 gallons	N/A	1.1000	N/A
4,001 to 10,000 gallons	N/A	2.5800	N/A
Over 10,000 gallons	N/A	3.2000	N/A
First 4,000 gallons	N/A	1.1000	1.0000
4,001 to 11,000 gallons	N/A	2.5800	2.0000
Over 11,000 gallons	N/A	3.2000	3.1200

1" Meter

First 12,000 gallons	\$ 1.2000	N/A	N/A
12,000 to 18,000 gallons	1.4000	N/A	N/A
Over 18,000 gallons	1.6000		
First 25,000 gallons	N/A	2.5800	N/A
Over 25,000 gallons	N/A	3.2000	N/A
First 22,500 gallons	N/A	N/A	2.0000
Over 22,500 gallons	N/A	N/A	3.1200

1 1/2" Meter

First 12,000 gallons	\$ 1.2000	N/A	N/A
12,000 to 18,000 gallons	1.4000	N/A	N/A
Over 18,000 gallons	1.6000		
First 50,000 gallons	N/A	2.5800	N/A
Over 50,000 gallons	N/A	3.2000	N/A
First 45,000 gallons	N/A	N/A	2.0000
Over 45,000 gallons	N/A	N/A	3.1200

2" Meter

First 12,000 gallons *	\$ 1.2000	N/A	N/A
12,000 to 18,000 gallons	1.4000	N/A	N/A
Over 18,000 gallons	1.6000		
First 50,000 gallons	N/A	2.5800	N/A
Over 50,000 gallons	N/A	3.2000	N/A
First 72,000 gallons	N/A	N/A	2.0000
Over 72,000 gallons	N/A	N/A	3.1200

3" Meter

First 12,000 gallons	\$ 1.2000	N/A	N/A
12,000 to 18,000 gallons	1.4000	N/A	N/A
Over 18,000 gallons	1.6000		
First 50,000 gallons	N/A	2.5800	N/A
Over 50,000 gallons	N/A	3.2000	N/A
First 144,000 gallons	N/A	N/A	2.0000
Over 144,000 gallons	N/A	N/A	3.1200

4" Meter

First 12,000 gallons	\$ 1.2000	N/A	N/A
12,000 to 18,000 gallons	1.4000	N/A	N/A
Over 18,000 gallons	1.6000		
First 50,000 gallons	N/A	2.5800	N/A
Over 50,000 gallons	N/A	3.2000	N/A
First 225,000 gallons	N/A	N/A	2.0000
Over 225,000 gallons	N/A	N/A	3.1200

6" Meter

First 12,000 gallons	\$ 1.2000	N/A	N/A
12,000 to 18,000 gallons	1.4000	N/A	N/A
Over 18,000 gallons	1.6000		
First 50,000 gallons	N/A	2.5800	N/A
Over 50,000 gallons	N/A	3.2000	N/A
First 450,000 gallons	N/A	N/A	2.0000
Over 450,000 gallons	N/A	N/A	3.1200

8" Meter

First 12,000 gallons	\$ 1.2000	N/A	N/A
12,000 to 18,000 gallons	1.4000	N/A	N/A
Over 18,000 gallons	1.6000		
First 50,000 gallons	N/A	2.5800	N/A
Over 50,000 gallons	N/A	3.2000	N/A
First 720,000 gallons	N/A	N/A	2.0000
Over 720,000 gallons	N/A	N/A	3.1200

Typical Bill Analysis
General Service 5/8 x 3/4-Inch Meter

Company Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	11,183	\$ 20.92	\$ 37.67	\$ 16.75	80.05%
Median Usage	8,762	18.01	30.69	\$ 12.67	70.34%
Staff Recommended					
Average Usage	11,183	\$ 20.92	\$ 28.57	\$ 7.65	36.58%
Median Usage	8,762	18.01	23.52	\$ 5.51	30.58%

Present & Proposed Rates (Without Taxes)
General Service 5/8 x 3/4-Inch Meter

Gallons Consumption	Present Rates	Company Proposed Rates	% Increase	Staff Recommended Rates	% Increase
-	\$ 7.50	\$ 14.00	86.67%	\$ 10.00	33.33%
1,000	8.70	15.10	73.56%	11.00	26.44%
2,000	9.90	16.20	63.64%	12.00	21.21%
3,000	11.10	17.30	55.86%	13.00	17.12%
4,000	12.30	18.40	49.59%	14.00	13.82%
5,000	13.50	20.98	55.41%	16.00	18.52%
6,000	14.70	23.56	60.27%	18.00	22.45%
7,000	15.90	26.14	64.40%	20.00	25.79%
8,000	17.10	28.72	67.95%	22.00	28.65%
9,000	18.30	31.30	71.04%	24.00	31.15%
10,000	19.50	33.88	73.74%	26.00	33.33%
11,000	20.70	37.08	79.13%	28.00	35.27%
12,000	21.90	40.28	83.93%	31.12	42.10%
13,000	23.30	43.48	86.61%	34.24	46.95%
14,000	24.70	46.68	88.99%	37.36	51.26%
15,000	26.10	49.88	91.11%	40.48	55.10%
16,000	27.50	53.08	93.02%	43.60	58.55%
17,000	28.90	56.28	94.74%	46.72	61.66%
18,000	30.30	59.48	96.30%	49.84	64.49%
19,000	31.90	62.68	96.49%	52.96	66.02%
20,000	33.50	65.88	96.66%	56.08	67.40%
25,000	41.50	81.88	97.30%	71.68	72.72%
30,000	49.50	97.88	97.74%	76.28	76.32%
35,000	57.50	113.88	98.05%	102.88	78.92%
40,000	65.50	129.88	98.29%	118.48	80.89%
45,000	73.50	145.88	98.48%	134.08	82.42%
50,000	81.50	161.88	98.63%	149.68	83.66%
75,000	121.50	241.88	99.08%	227.68	87.39%
100,000	161.50	321.88	99.31%	305.68	89.28%

BEFORE THE ARIZONA CORPORATION COMMISSION

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

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. W-01737A-12-0478
NEW RIVER UTILITY COMPANY, AN)
ARIZONA CORPORATION, FOR A)
DETERMINATION OF THE FAIR VALUE OF)
ITS UTILITY PLANT AND PROPERTY AND)
FOR INCREASES IN ITS WATER RATES)
AND CHARGES FOR UTILITY SERVICE)
BASED THEREON.)

DIRECT TESTIMONY

OF

MARLIN SCOTT, JR.

UTILITIES ENGINEER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

JUNE 26, 2013

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**EXECUTIVE SUMMARY
NEW RIVER UTILITY COMPANY
DOCKET NO. W-01737A-12-0478**

Conclusions

- A. New River Utility Company's ("Company") water system has a water loss of 8.6 percent, which is within the acceptable limit of 10 percent.
- B. The Company's current well capacity of 2,485 GPM and storage capacity of 3,000,000 gallons are adequate to serve the present customer base and reasonable growth. In addition, the Company has an emergency interconnection with the City of Peoria.
- C. The Maricopa County Department of Environmental Services reported no deficiencies and has determined that the Company's system is currently delivering water that meets the water quality standards required by the Code of Federal Regulations Title 40, Part 141 (The National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4.
- D. The Company is located in the Arizona Department of Water Resources' ("ADWR") Phoenix Active Management Area and ADWR reported the Company's system is in compliance with its requirements governing water providers and/or community water systems.
- E. According to the Arizona Corporation Commission Utilities Division Compliance Section, the Company had no delinquent compliance issues.
- F. The Company has a Commission approved curtailment tariff.
- G. The Company has a Commission approved backflow prevention tariff.

Recommendations

- 1. Staff concludes that the requested post-test year plant item – City of Peoria interconnection is used and useful for the provision of service to the Company's customers.
- 2. Staff recommends the Original Cost and Reproduction Cost New plant costs shown in Table E-1 be used for purposes of this proceeding.
- 3. Staff recommends an annual water testing expense of \$10,636 be adopted for this proceeding.

4. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, within 90 days of the effective date of a decision in this proceeding, at least seven Best Management Practices (“BMPs”) in the form of tariffs that substantially conform to the templates created by Staff for Commission review and approval. These BMP templates are available on the Commission’s website. The Company may request cost recovery of the actual costs associated with the implemented BMPs in its next general rate application.
5. Staff recommends that the Company continue to use Staff’s depreciation rates by individual National Association of Regulatory Utility Commissioners category as shown in Table I-1.
6. Staff recommends approval of the proposed service line and meter installations charges as shown in Table J-1.

1 **INTRODUCTION**

2 **Q. Please state your name, place of employment and job title.**

3 A. My name is Marlin Scott, Jr. My place of employment is the Arizona Corporation
4 Commission (“Commission” or “ACC”), Utilities Division, 1200 West Washington Street,
5 Phoenix, Arizona 85007. My job title is Utilities Engineer.
6

7 **Q. How long have you been employed by the Commission?**

8 A. I have been employed by the Commission since November 1987.
9

10 **Q. Please list your duties and responsibilities.**

11 A. As a Utilities Engineer, specializing in water and wastewater engineering, my
12 responsibilities include: the inspection, investigation, and evaluation of water and
13 wastewater systems; preparing reconstruction cost new and/or original cost studies, cost of
14 service studies and investigative reports; providing technical recommendations and
15 suggesting corrective action for water and wastewater systems; and providing written and
16 oral testimony on rate applications and other cases before the Commission.
17

18 **Q. How many cases have you analyzed for the Utilities Division?**

19 A. I have analyzed approximately 580 cases covering various responsibilities for the Utilities
20 Division.
21

22 **Q. Have you previously testified before this Commission?**

23 A. Yes, I have testified in 90 proceedings before this Commission.

1 **Q. What is your educational background?**

2 A. I graduated from Northern Arizona University in 1984 with a Bachelor of Science degree
3 in Civil Engineering Technology.

4
5 **Q. Briefly describe your pertinent work experience.**

6 A. Prior to my employment with the Commission, I was Assistant Engineer for the City of
7 Winslow, Arizona, for about two years. Prior to that, I was a Civil Engineering
8 Technician with the U.S. Public Health Service in Winslow for approximately six years.

9
10 **PURPOSE OF TESTIMONY**

11 **Q. Were you assigned to provide the Utilities Division Staff (“Staff”) engineering**
12 **analysis and recommendation for the New River Utility Company (“Company”) in**
13 **this proceeding?**

14 A. Yes. I reviewed the Company’s application, reviewed responses to data requests, and
15 inspected the water system on March 11, 2013. This testimony and its attachment present
16 Staff’s engineering evaluation.

17
18 **ENGINEERING REPORT**

19 **Q. Please describe the attached Engineering Report, Exhibit MSJ.**

20 A. Exhibit MSJ presents the details and analyses of Staff’s findings for the Company’s water
21 system and is attached to this Direct Testimony. Exhibit MSJ contains the following
22 major topics: (1) a description of the water system, (2) water use, (3) growth, (4) plant-in-
23 service, (5) compliance with the rules of the Arizona Department of Environmental
24 Quality, Arizona Department of Water Resources, and the ACC, (6) depreciation rates, (7)
25 service line and meter installation charges, and (8) tariff filings.

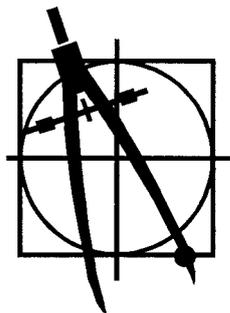
26

1 My conclusions and recommendations from the Engineering Report are contained in the
2 “Executive Summary”, above.

3

4 **Q. Does this conclude your Direct Testimony?**

5 **A. Yes, it does.**



Engineering Report for New River Utility Company

Docket No. W-01737A-12-0478 (Rates)

May 7, 2013

A. LOCATION OF NEW RIVER UTILITY COMPANY (“COMPANY”)

The Company is located within the City of Peoria in the vicinity of 83th Avenue and Deer Valley Road. Figure A-1 shows the location of the Company within Maricopa County and Figure A-2 shows the approximate 1.75 square-miles of certificated area.

B. DESCRIPTION OF WATER SYSTEM

This water system was field inspected on March 11, 2013, by Arizona Corporation Commission (“ACC” or “Commission”) Staff member Marlin Scott, Jr., in the accompaniment of Robert Fletcher, representing the Company. The current operation of this water system consists of four wells, three storage tanks, two booster systems and a distribution system serving approximately 2,925 service connections during the test year ending December 2011. The Company also has an interconnection (6-inch compound meter with backflow prevention assembly) with the City of Peoria that was completed in April 2012. Figure A-3 shows a system schematic of the water system. A detailed plant facility description is as follows:

Table 1. Well Data

Well No.	ADWR ID No.	Pump	Flow, GPM	Casing Size & Depth	Meter Size	Year Drilled
#1	55-8054376	200-Hp turbine	960	20” x 1,200’	8”	1980
#2	55-616944	150-Hp turbine	300	20/16” x 1,262’	6”	1952
#4	55-616946	75-Hp turbine	225	16” x 1,300’	8”	1969
#6	55-616948	300-Hp turbine	1,000	16” x 1,500’	8”	1983
		Total:	2,485			
#3	55-616945	300-Hp turbine	Disconnected	16” x 1,650’	8”	1958

Well #3 is disconnected from the water system and the Company did not include this well as part of its plant-in-service in this proceeding.

Table 2. Storage Tanks

Capacity	Quantity	Location
1,000,000	3	One at 78 th Lane Booster Plant and two at 87 th Avenue Booster Plant
Total: 3,000,000 gallons		

Table 3. Pumping Facilities

Location	Booster Systems	Storage Tanks (From Table 2 above)
78 th Lane Booster Plant	Three 25-Hp & 100-Hp boosters with 5,000 gallon pressure tank.	1,000,000 gallon
87 th Avenue Booster Plant	Three 25-Hp & 100-Hp boosters with 5,000 gallon pressure tank.	Two 1,000,000 gallon

Table 4. Water Mains

MAINS		
Size	Material	Length (feet)
6-inch	PVC	41,136
"	DIP	2,525
8-inch	PVC	119,371
"	DIP	11,981
10-inch	PVC	10,949
"	DIP	29
12-inch	PVC	11,667
"	DIP	16,629
16-inch	PVC	140
"	DIP	52
	Total:	214,479 feet or 40.62 miles

Table 5. Customer Meters

Size	Quantity
5/8 x 3/4-inch	2,240
3/4-inch	3
1- inch	546
1-1/2-inch	11
2-inch	114
3-inch compound	6
6-inch compound	2
8-inch	2
Total:	2,924

Table 6. Fire Hydrants

Size	Quantity
Standard	451

Table 7. Treatment, Structures and Operations Equipment

Location	Treatment, Structures & Treatment Equipment
87 th Avenue Booster Plant	Arsenic treatment system, 1,000 GPM Gas chlorination system Block fencing
78 th Lane Booster Plant (Well #4)	Gas chlorination system Block fencing
Well Sites #1 & #2	Chain link fencing
Well #6	Gas chlorination system Block fencing

C. WATER USE

Water Sold

Based on information provided by the Company, water use for the test year ending December 2011 is presented in Figure C-1. The customer consumption experienced a high monthly average water use of 805 gallons per day (“GPD”) per connection in September and a low monthly average water use of 304 GPD per connection in March for an average annual use of 539 GPD per connection.

Non-Account Water

Non-account water should be 10 percent or less. The Company reported 628,882,000 gallons pumped and 574,635,110 gallons sold during the test year, resulting in a difference of 8.6 percent. This 8.6 percent is within the acceptable limit of 10 percent.

System Analysis

The Company’s current well capacity of 2,485 GPM and storage capacity of 3,000,000 gallons are adequate to serve the present customer base and reasonable growth. In addition, the Company has an emergency interconnection with the City of Peoria.

D. GROWTH

Figure D-1 depicts customer growth using customer count information obtained from annual reports submitted to the Commission. As of December 2011, the Company had 2,924 customers. According to the Company, the built-out customer count is estimated at 2,934.

E. PLANT-IN-SERVICE

Post-Test Year Plant

In its rate application filing, the Company submitted a post-test year (“PTY”) plant item which provided interconnection with the City of Peoria. This interconnection was completed in April 2012 at a cost of \$79,904 that consisted of a 6-inch compound meter with a backflow prevention assembly. Staff concludes that the requested PTY plant item – City of Peoria interconnection is used and useful for the provision of service to customers.

Original Cost and Reproduction Cost New

The Company submitted Original Cost (“OC”) and Reproduction Cost New (“RCN”) plant costs for the test year ending December 2011. Staff has reviewed this OC/RCN study and has made one recommended adjustment (shaded) to Account No. 304 – Structures & Improvements in Table E-1 below. Staff adopted original cost as the RCN value for Account No. 304. Staff recommends the following OC and RCN plant-in-service costs be used for purposes of this proceeding:

Table E-1. Staff's Adjustment to Plant-in-Service

New River Utility Company's Plant-in-Service					
Acct. No.	Descriptions	OC	RCN	OCLD	RCNLD
303	Land & Land Rights	\$ 75,181	\$ -	\$ 75,181	\$ -
304	Structures & Improvements	\$ 84,633	\$ 84,633	\$ 53,503	\$ 53,503
307	Wells	\$ 795,021	\$ 2,368,472	\$ 420,225	\$ 265,052
311	Pumping Equipment	\$ 939,631	\$ 1,216,357	\$ -	\$ 574,511
320	Water Treatment Equipment	\$ 383,055	\$ 568,450	\$ 363,977	\$ 526,613
330	Distribution Reservoirs	\$ 1,046,963	\$ 2,369,625	\$ 764,206	\$ 1,707,113
331	Trans. & Distribution Mains	\$ 1,322,110	\$ 8,170,084	\$ 1,003,274	\$ 6,232,037
333	Services	\$ 236,325	\$ 2,397,643	\$ 124,008	\$ 1,435,859
334	Meters	\$ 126,139	\$ 126,139	\$ 13,622	\$ 13,622
335	Hydrants	\$ 193,193	\$ 1,810,765	\$ 147,971	\$ 1,399,749
339	Other Plant & Misc. Equip.	\$ -	\$ -	\$ -	\$ -
340	Office Furniture & Equip.	\$ 19,273	\$ 19,273	\$ 2,095	\$ 2,095
341	Transportation Equipment	\$ 1,200	\$ 1,200	\$ -	\$ -
343	Tools, Shop & Garage Equip.	\$ -	\$ -	\$ -	\$ -
345	Power Operated Equipment	\$ 115,725	\$ 115,725	\$ 72,169	\$ 72,169
348	Other Tangible Plant	\$ 26,239	\$ 26,239	\$ 23,615	\$ 23,615
	Totals:	\$ 5,364,688	\$ 19,274,605	\$ 3,063,846	\$ 12,305,938
331	PTY Plant - inter-tie w/ Peoria	\$ 79,904	\$ 79,904	\$ 79,904	\$ 79,904
	TOTALS:	\$ 5,444,592	\$ 19,354,509	\$ 3,143,750	\$ 12,385,842

F. MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT ("MCESD") COMPLIANCE

Compliance

According to a MCESD Compliance Status Report dated February 26, 2013, MCESD reported no deficiencies and has determined that the Company's system, PWS #07-051, is currently delivering water that meets the water quality standards required by Title 40 Code of Federal Regulations Part 141 (the National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4.

Water Testing Expense

During the test year, the Company participated in the Monitoring Assistance Program ("MAP") and reported its water testing expense in two different accounts, Account 618 – Chemical Expense (\$1,781) and Account 636 – Contractual Services Other (\$8,410), totaling to

\$10,191. During Staff's field inspection, the Company informed Staff that the Company no longer participates in MAP. Based on this new testing information, the Company responded to Staff's Data Request MSJ 4.5 by providing a calculated annual water testing expense of \$10,636 as shown in Table F-1. Staff recommends this annual water testing expense of \$10,636 be used for the purpose of this proceeding.

G. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR") COMPLIANCE

Compliance

The Company's water system is located in the Phoenix Active Management Area ("AMA"). On February 27, 2013, ADWR reported that the Company's system is in compliance with its requirements governing water providers and/or community water systems.

Best Management Practice Tariffs

According to the Company, the Company is enrolled as a regulated Tier I municipal provider in ADWR's Modified Non-Per Capita Conservation Program ("NPCCP"). Under this program, the Company was required to implement the Public Education Program ("PEP") and one additional Best Management Practice ("BMP").

During Staff's field inspection, Staff obtained a copy of the ADWR document approving the following BMPs:

1. PEP
2. BMP 4.2 – Meter Repair and/or Replacement Program

This ADWR document, dated June 24, 2010, showed a "list" of the above BMPs for approval. These BMPs however were not in tariff form.

Staff recommends that the Company file with Docket Control, as a compliance item in this docket, within 90 days of the effective date of a decision in this proceeding, at least seven BMPs in the form of tariffs that substantially conform to the templates created by Staff for Commission review and approval. These BMP templates are available on the Commission's website. The Company may submit the approved two ADWR BMPs as part of the seven and may request cost recovery of the actual costs associated with the implemented BMPs in its next general rate application.

H. ARIZONA CORPORATION COMMISSION ("ACC") COMPLIANCE

On May 7, 2013, the Utilities Division Compliance Section reported that the Company had no delinquent ACC compliance issues.

I. DEPRECIATION RATES

In the prior rate case, the Company was granted use of Staff's typical depreciation rates by individual National Association of Regulatory Utility Commissioners category. In this present case, the Company is still using Staff's typical and customary water depreciation rates. Staff recommends that the Company continue to use Staff's depreciation rates which are listed in Table I-1.

J. SERVICE LINE AND METER INSTALLATION CHARGES

The Company has requested changes to its service line and meter installation charges by adopting Staff's latest typical installation charges. Staff recommends approval of the proposed charges shown in Table J-1 which shows separate service line and meter charges.

K. CURTAILMENT TARIFF

The Company has an approved curtailment tariff on file with the Commission.

L. BACKFLOW PREVENTION TARIFF

The Company has an approved backflow prevention tariff on file with the Commission.

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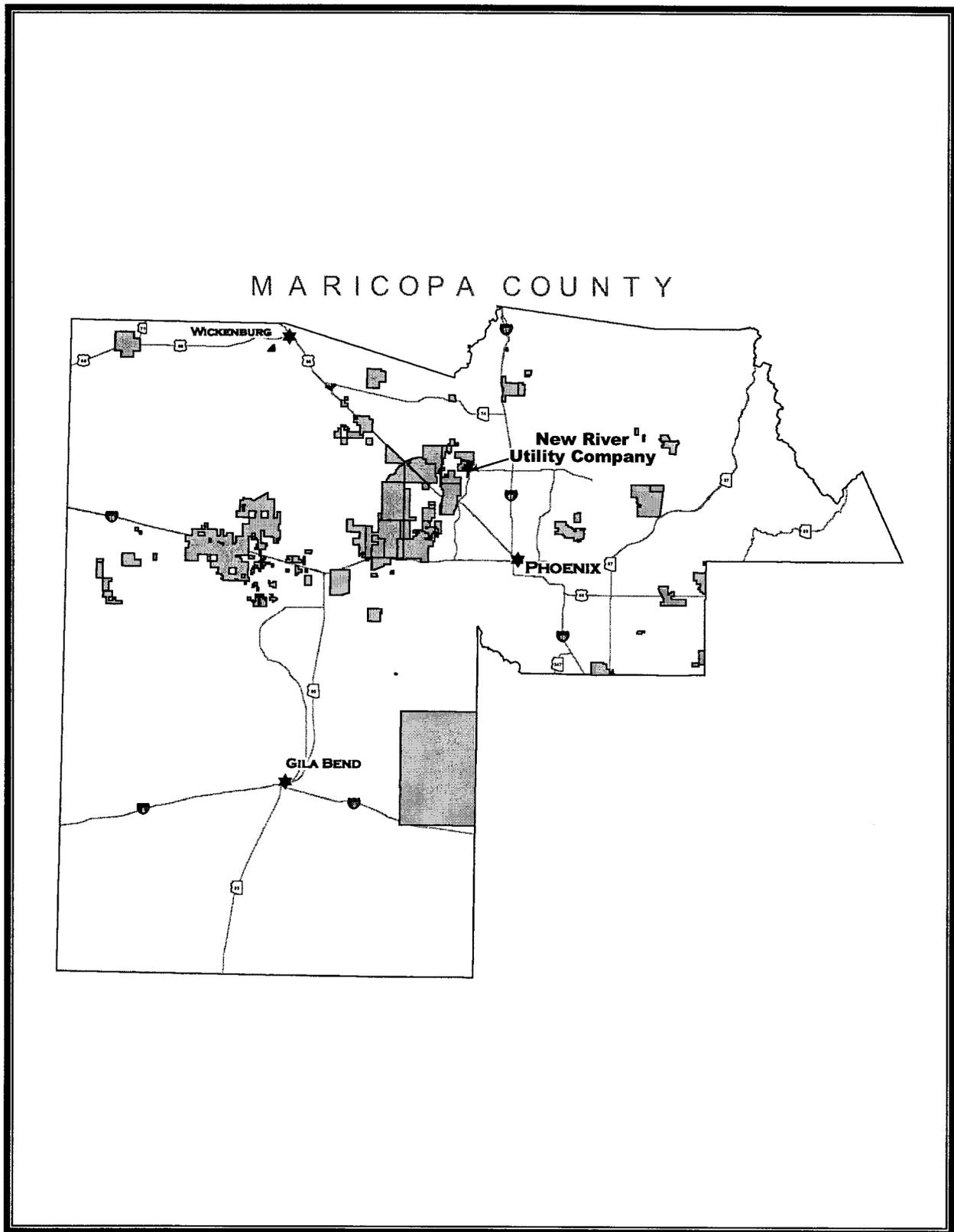


Figure A-1. Maricopa County Map

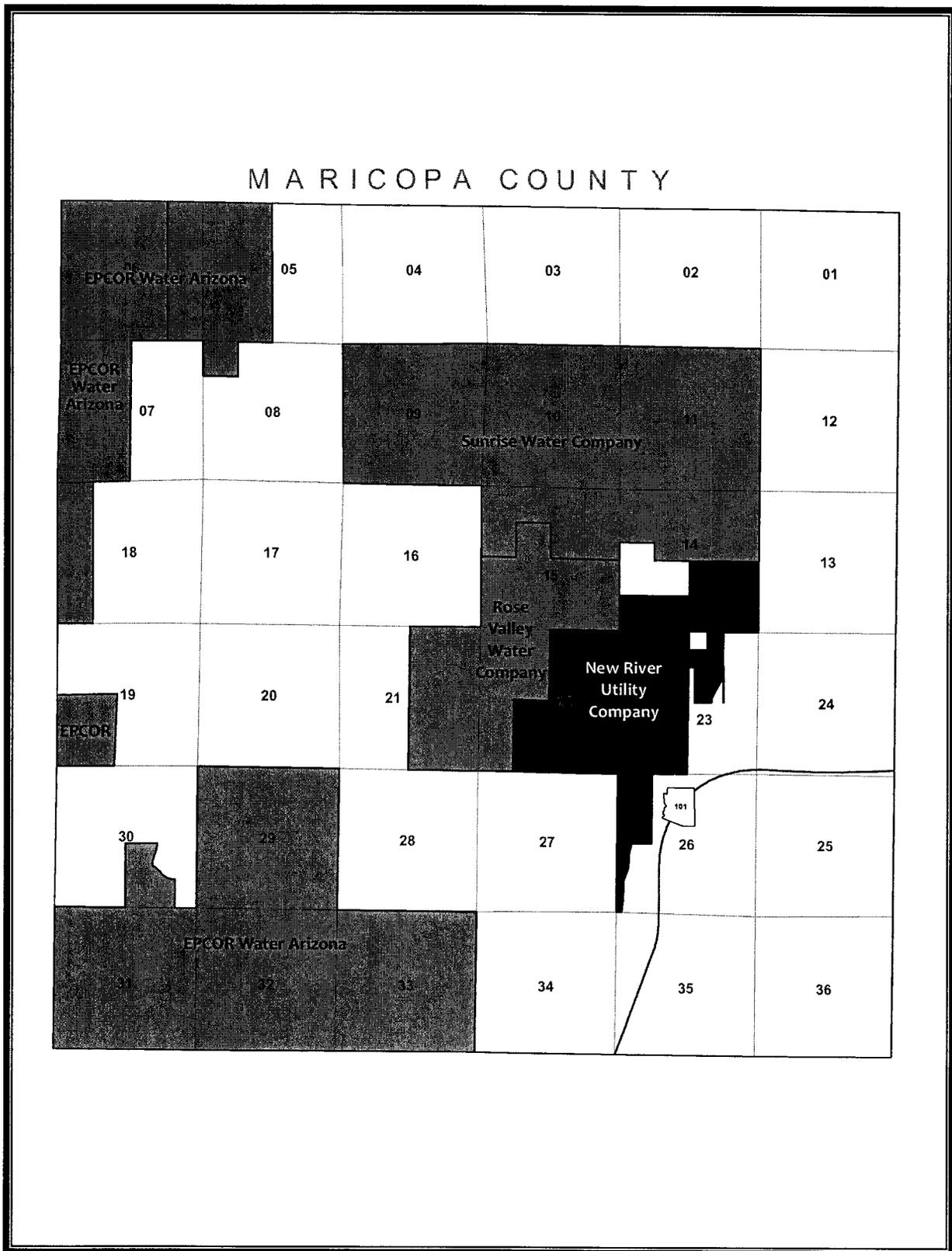


Figure A-2. Certificated Area

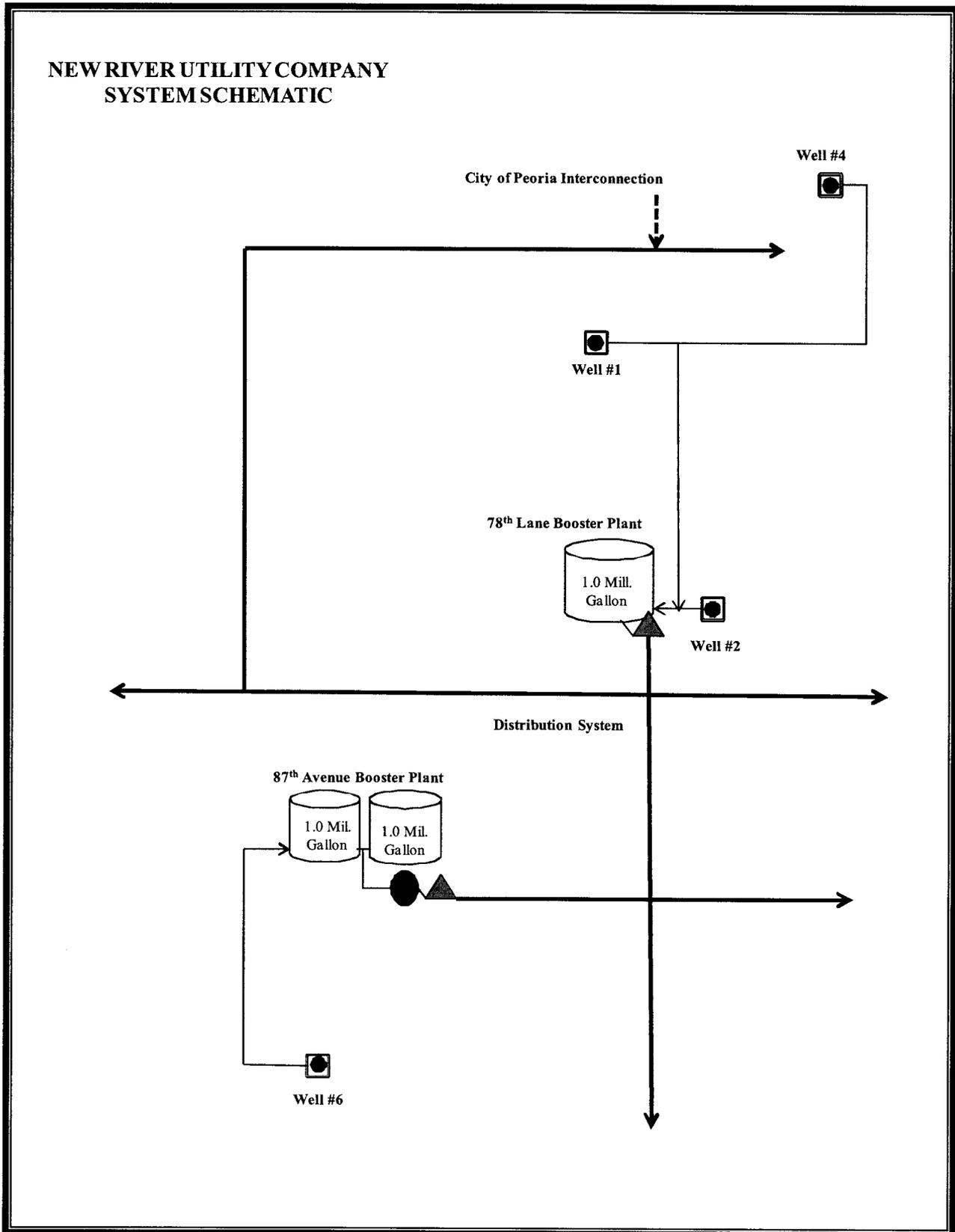


Figure A-3. Water System Schematic

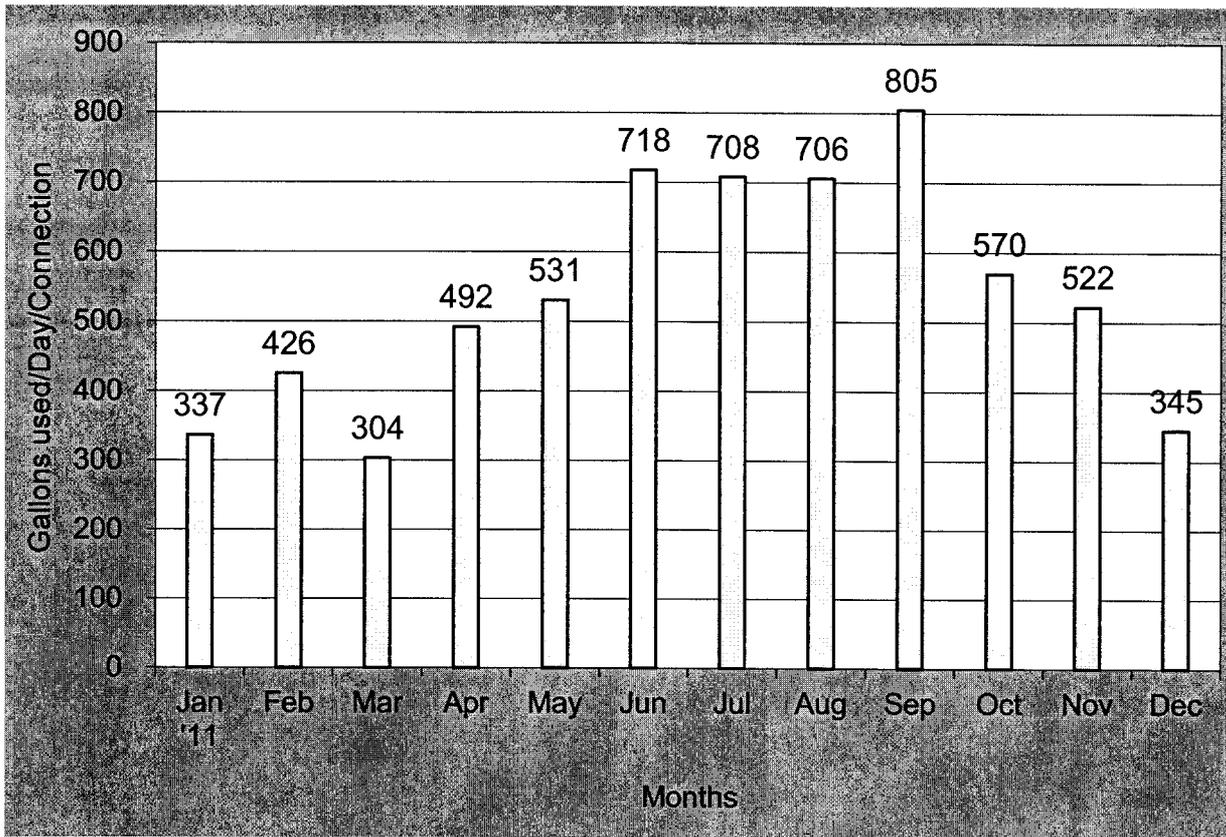


Figure C-1. Water System Use

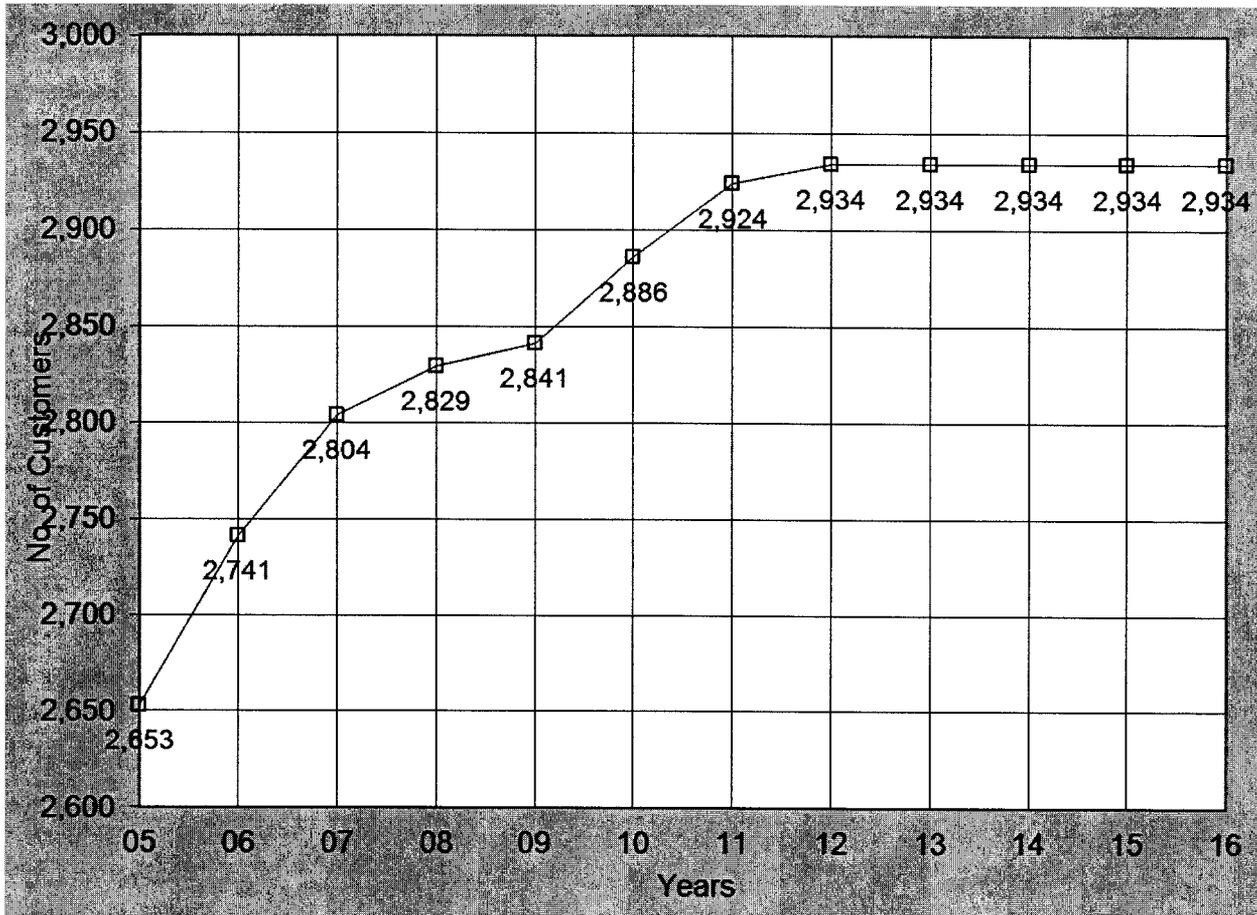


Figure D-1. Water System Growth

Table F-1. Water Testing Expense

MONITORING	Cost per Test	No. of Test	Annual Cost
Total Coliform – 12 samples monthly	\$21	144	\$3,024
Inorganics –			
Priority Pollutants – POE #2, per 9 yrs.	\$282	1	\$31
Priority Pollutants – POE #3, per 3 yrs.	\$282	1	\$94
Radiochemical – per 6 yrs.	\$630	2	\$210
Phase II and V:			
Nitrate – Monthly, both POEs	\$45	2	\$1,080
Nitrite – Monthly, POE #2	\$45	1	\$540
Nitrite – POE #3, per 9 yrs.	\$45	1	\$5
Asbestos - per 9 years	\$224	2	\$50
VOC's – per 3yrs.	\$280	2	\$187
Pesticides/PCB's/Unreg./SOC's:			
All SOCs – 2 test per POE (6 test per 6 yrs.)	\$3,136	6	\$3,136
DBCP – 3 test per 6 yrs.	\$190	3	\$95
Lead & Copper - per 3 years	\$36	20	\$240
Trihalomethane/ HAA5 – 2 test per yr.	\$420	2	\$840
Others –			
Arsenic – Raw water – monthly	\$23	1	\$276
Arsenic – Discharge treatment – monthly	\$23	1	\$276
Arsenic – Blended water – monthly	\$23	1	\$276
Arsenic – POE #3 – monthly	\$23	1	\$276
Total:			\$10,636

Table I-1. Water Depreciation Rates

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	-	-

NOTE: Acct. 348 – Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.

Table J-1. Service Line and Meter Installation Charges

Meter Size	Current Total Charges	Proposed Service Line Charges	(1) Proposed Meter Charges	Proposed Total Charges
5/8 x3/4-inch	\$410	\$445	\$155	\$600
3/4-inch	\$410	\$445	\$255	\$700
1-inch	\$520	\$495	\$315	\$810
1-1/2-inch	\$660	\$550	\$525	\$1,075
2-inch Turbine	\$1,155	\$830	\$1,045	\$1,875
2-inch Compound	\$1,720	\$830	\$1,890	\$2,720
3-inch Turbine	\$1,625	\$1,045	\$1,670	\$2,715
3-inch Compound	\$2,260	\$1,165	\$2,545	\$3,710
4-inch Turbine	\$2,500	\$1,490	\$2,670	\$4,160
4-inch Compound	\$3,200	\$1,670	\$3,645	\$5,315
6-inch Turbine	\$4,500	\$2,210	\$5,025	\$7,235
6-inch Compound	\$6,300	\$2,330	\$6,920	\$9,250
8-inch	\$8,200	NT	NT	NT
8-inch or larger meters	NT	Cost	Cost	Cost

Note: NT = no tariff

BEFORE THE ARIZONA CORPORATION COMMISSION

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

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. W-01737A-12-0478
NEW RIVER UTILITY COMPANY, AN)
ARIZONA CORPORATION, FOR A)
DETERMINATION OF THE FAIR VALUE)
OF ITS UTILITY PLANT AND)
PROPERTY AND FOR INCREASES IN)
ITS WATER RATES AND CHARGES FOR)
UTILITY SERVICE BASED THEREON.)

DIRECT
TESTIMONY
OF

JOHN A. CASSIDY

PUBLIC UTILITIES ANALYST
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

JUNE 26, 2013

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**EXECUTIVE SUMMARY
NEW RIVER WATER & SEWER, INC.
DOCKET NO. WS-03478A-12-0307**

The Direct Testimony of Staff witness John A. Cassidy addresses the following issues:

Capital Structure – Staff recommends that the Commission adopt a capital structure for New River Utility Company (“Company”) for this proceeding consisting of 0.0 percent debt and 100.0 percent equity.

Cost of Equity – Staff recommends that the Commission adopt an 8.8 percent return on equity (“ROE”) for the Company. Staff’s estimated ROE for the Company is based on the average of its discounted cash flow (“DCF”) method and capital asset pricing model (“CAPM”) cost of equity methodology estimates for the sample companies of 8.6 percent for the DCF and 7.7 percent for the CAPM. Staff’s recommended ROE includes an upward economic assessment adjustment of 60 basis points.

Cost of Debt – Staff recommends that the Commission adopt a 0.0 percent cost of debt, as the Company has no debt in its capital structure.

Fair Value Rate of Return – Staff recommends that the Commission adopt a fair value rate of return (“FVROR”) of 7.6 percent.

Mr. Jones’ Testimony – The Commission should reject the 10.0 percent cost of equity proposed by Mr. Jones because it is not supported by any market based cost of equity estimation analysis.

1 **I. INTRODUCTION**

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

3 A. My name is John A. Cassidy. I am a Public Utilities Analyst employed by the Arizona
4 Corporation Commission (“Commission”) in the Utilities Division (“Staff”). My business
5 address is 1200 West Washington Street, Phoenix, Arizona 85007.

6
7 **Q. Briefly describe your responsibilities as a Public Utilities Analyst.**

8 A. I am responsible for the examination of financial and statistical information included in
9 utility rate applications and other financial matters, including studies to estimate the cost
10 of capital component in rate filings used to determine the overall revenue requirement, and
11 for preparing written reports, testimonies and schedules to present Staff’s
12 recommendations to the Commission on these matters.

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

15 A. I hold a Bachelor of Arts degree in History from Arizona State University, a Master of
16 Library Science degree from the University of Arizona, and a Master of Business
17 Administration degree with an emphasis in Finance from Arizona State University. While
18 pursuing my MBA degree, I was inducted into Beta Gamma Sigma, the National Business
19 Honor Society. I have passed the CPA exam, but opted not to pursue certification. I have
20 worked professionally as a librarian, financial consultant and tax auditor and served as
21 Staff’s cost of capital witness in rate case evidentiary proceedings in my current as well as
22 in a past tenure as a Commission employee.

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

2 A. My testimony provides Staff's recommended capital structure, return on equity ("ROE")
3 and overall fair value rate of return ("FVROR") for establishing the revenue requirements
4 for New River Utility Company's ("New River" or "Company") pending rate application.
5

6 **Q. Please provide a brief description of New River.**

7 A. New River is a public service corporation engaged in providing water utility service in
8 portions of Maricopa County, Arizona, pursuant to certificates of convenience and
9 necessity granted by the Commission in Decision No. 33131 (May 24, 1961) and Decision
10 No. 33354 (August 15, 1961). During the Test Year ended December 31, 2012, New
11 River served approximately 2,900 water service connections.
12

13 *Summary of Testimony and Recommendations*

14 **Q. Briefly summarize how Staff's Cost of Capital Testimony is organized.**

15 A. Staff's Cost of Capital Testimony is presented in eleven sections. Section I is this
16 introduction. Section II discusses the concept of weighted average cost of capital
17 ("WACC"). Section III presents the concept of capital structure and presents Staff's
18 recommended capital structure for New River in this proceeding. Section IV presents
19 Staff's cost of debt for New River. Section V discusses the concepts of ROE and risk.
20 Section VI presents the methods employed by Staff to estimate New River's ROE.
21 Section VII presents the findings of Staff's ROE analysis. Section VIII presents Staff's
22 final cost of equity estimates for New River. Section IX presents Staff's FVROR
23 recommendation. Section X presents Staff's comments on the Direct Testimony of the
24 Company's witness, Mr. Ray L. Jones, pertaining to cost of capital. Finally, section XI
25 presents the conclusions.

1 **Q. Have you prepared any exhibits to accompany your testimony?**

2 A. Yes. I prepared nine schedules (JAC-1 to JAC-9) that support Staff's cost of capital
3 analysis.

4
5 **Q. What is Staff's weighted average cost of capital ("WACC") for New River?**

6 A. Staff's WACC is 8.8 percent, as shown in Schedule JAC-1. Staff's WACC is based on
7 cost of equity estimates for the proxy group of sample companies of 8.6 percent from the
8 discounted cash flow ("DCF") method and 7.7 percent from the capital asset pricing
9 model ("CAPM"). As shown in Schedule JAC-3, Staff recommends adoption of a 60
10 basis point upward economic assessment adjustment to the cost of equity.

11
12 **Q. What is Staff's recommended FVROR for New River?**

13 A. Staff recommends a 7.6 percent FVROR. The calculation of Staff's recommended 7.6
14 percent FVROR is presented in Schedule JAC-1.

15
16 *New River's Proposed Overall Rate of Return*

17 **Q. Briefly summarize New River's proposed capital structure, cost of debt, ROE and
18 overall FVROR for this proceeding.**

19 A. Table 1 summarizes the Company's proposed capital structure, cost of debt, ROE and
20 overall cost of capital / FVROR in this proceeding:

21
22 **Table 1**

	Weight	Cost	Inflation Adj.	Adjusted Cost	Weighted Cost
Long-term Debt	0.0%	0.0%	-1.28%	-1.28%	0.0%
Common Equity	100.0%	10.0%	-1.28%	8.72%	<u>8.72%</u>
Cost of Capital (FVROR)					8.72%

1 New River is proposing an overall fair value cost of capital, i.e., FVROR of 8.72 percent.¹

2
3 **II. THE WEIGHTED AVERAGE COST OF CAPITAL**

4 **Q. Briefly explain the cost of capital concept.**

5 A. The cost of capital is the opportunity cost of choosing one investment over others with
6 equivalent risk. In other words, the cost of capital is the return that stakeholders expect
7 for investing their financial resources in a determined business venture over another
8 business venture.

9
10 **Q. What is the overall cost of capital?**

11 A. The cost of capital to a company issuing a variety of securities (i.e., stock and
12 indebtedness) is an average of the cost rates on all issued securities adjusted to reflect the
13 relative amounts for each security in the company's entire capital structure. Thus, the
14 overall cost of capital is the WACC.

15
16 **Q. How is the WACC calculated?**

17 A. The WACC is calculated by adding the weighted expected returns of a firm's securities.
18 The WACC formula is:

19 Equation 1.

20
21
$$\text{WACC} = \sum_{i=1}^n W_i * r_i$$

22

23 In this equation, W_i is the weight given to the i^{th} security (the proportion of the i^{th} security
24 relative to the portfolio) and r_i is the expected return on the i^{th} security.

25

¹ See Jones Direct, p. 15 (lines 12-13), and Exhibit RLJ-DT2, Schedule D-1 (page 1).

1 **Q. Can you provide an example demonstrating application of Equation 1?**

2 A. Yes. For this example, assume that an entity has a capital structure composed of 60
3 percent debt and 40 percent equity. Also, assume that the embedded cost of debt is 6.0
4 percent and the expected return on equity, i.e., the cost of equity, is 10.5 percent.
5 Calculation of the WACC is as follows:

6
$$\text{WACC} = (60\% * 6.0\%) + (40\% * 10.5\%)$$

7
$$\text{WACC} = 3.60\% + 4.20\%$$

8
$$\text{WACC} = 7.80\%$$

9
10 The weighted average cost of capital in this example is 7.80 percent. The entity in this
11 example would need to earn an overall rate of return of 7.80 percent to cover its cost of
12 capital.

13
14 **III. CAPITAL STRUCTURE**

15 *Background*

16 **Q. Please explain the capital structure concept.**

17 A. The capital structure of a firm is the relative proportions of each type of security—short-
18 term debt, long-term debt (including capital leases), preferred stock and common stock—
19 that are used to finance the firm's assets.

20
21 **Q. How is the capital structure expressed?**

22 A. The capital structure of a company is expressed as the percentage of each component of
23 the capital structure (capital leases, short-term debt, long-term debt, preferred stock and
24 common stock) relative to the entire capital structure.

1 As an example, the capital structure for an entity that is financed by \$20,000 of short-term
2 debt, \$85,000 of long-term debt (including capital leases), \$15,000 of preferred stock and
3 \$80,000 of common stock is shown in Table 2.

4
5 **Table 2**

Component			%
Short-Term Debt	\$20,000	(\$20,000/\$200,000)	10.0%
Long-Term Debt	\$85,000	(\$85,000/\$200,000)	42.5%
Preferred Stock	\$15,000	(\$15,000/\$200,000)	7.5%
Common Stock	\$80,000	(\$80,000/\$200,000)	40.0%
Total	\$200,000		100%

6
7 The capital structure in this example is composed of 10.0 percent short-term debt, 42.5
8 percent long-term debt, 7.5 percent preferred stock and 40.0 percent common stock.

9
10 *New River's Capital Structure*

11 **Q. What capital structure does New River propose?**

12 A. The Company proposes a test-year end capital structure composed of 0.0 percent long-
13 term debt and 100.0 percent common equity.

14
15 **Q. How does New River's proposed capital structure compare to capital structures of
16 publicly-traded water utilities?**

17 A. Schedule JAC-4 shows the capital structures of six publicly-traded water companies
18 ("sample water companies" or "sample water utilities") as of December 2012. The
19 average capital structure for the sample water utilities is comprised of approximately 51.2
20 percent debt and 48.8 percent equity.

1 *Staff's Capital Structure*

2 **Q. What is Staff's recommended capital structure for New River?**

3 A. Staff recommends a capital structure composed of 0.0 percent debt and 100.0 percent
4 equity. Staff's recommended capital structure reflects the Company's actual capital
5 structure as of the December 31, 2011, test-year end.

6
7 **IV. COST OF DEBT**

8 **Q. What is the overall cost of debt proposed by the Company?**

9 A. As shown in the Company's Schedule D-2, New River has no debt in its capital structure;
10 thus, its cost of debt is 0.0 percent.

11
12 **V. RETURN ON EQUITY**

13 *Background*

14 **Q. Please define the term "cost of equity capital."**

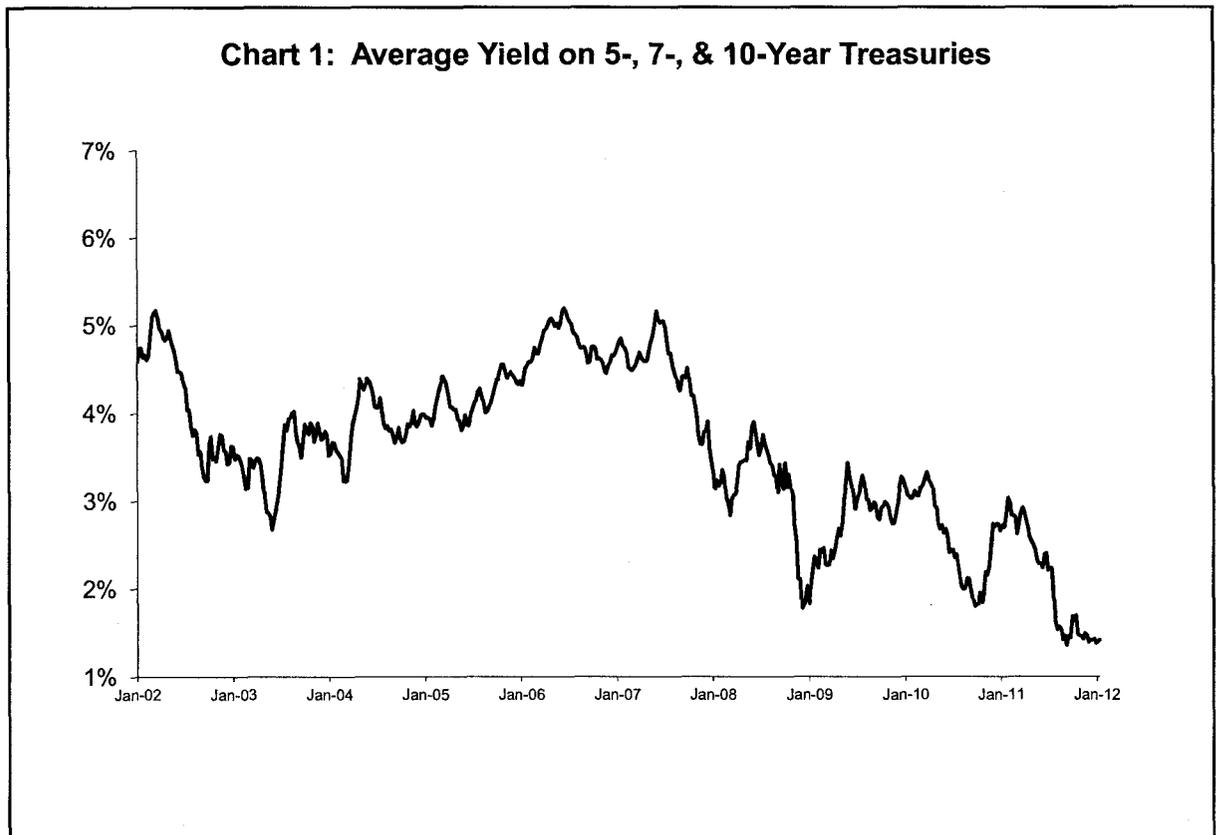
15 A. The cost of equity is the rate of return that investors expect to earn on their investment in a
16 business entity given its risk. In other words, the cost of equity to the entity is the
17 investors' expected rate of return on other investments of similar risk. As investors have a
18 wide selection of stocks to choose from, they will choose stocks with similar risks but
19 higher returns. Therefore, the market determines the entity's cost of equity.

20
21 **Q. Is there a correlation between interest rates and the cost of equity?**

22 A. Yes, there is a positive correlation between interest rates and the cost of equity, as the two
23 tend to move in the same direction. This relationship is reflected in the CAPM formula.
24 The CAPM is a market-based model employed by Staff for estimating the cost of equity.
25 The CAPM is further discussed in Section VI of this testimony.

1 **Q. What has been the general trend of interest rates in recent years?**

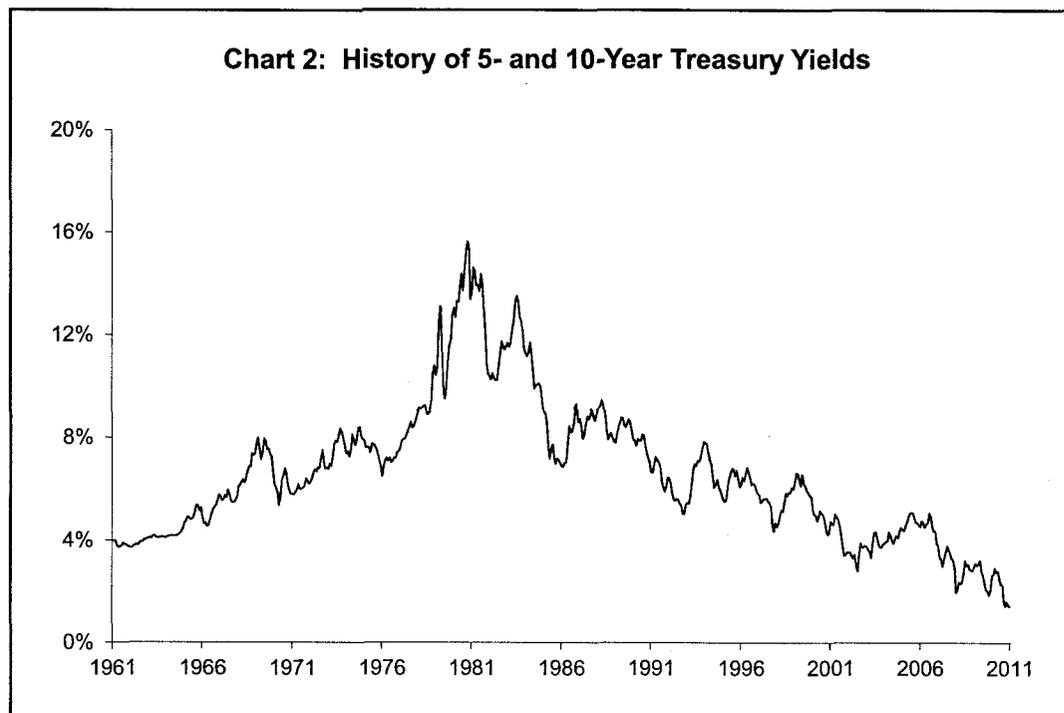
2 A. A chronological chart of interest rates is a good tool to show interest rate history and
3 identify trends. Chart 1 graphs intermediate U.S. treasury rates from January 4, 2002, to
4 May 31, 2013.



20 Chart 1 shows that intermediate-term interest rates trended downward from 2002 to mid-
21 2003, then trended upward through mid-2007, and have since generally trended
22 downward.

1 **Q. What has been the general trend in interest rates longer term?**

2 A. U.S. Treasury rates from January 1962 - May 2013 are shown in Chart 2. The chart shows
3 that interest rates trended upward through the early-1980s, and have trended downward
4 over the last 30 years.



18 Source: Federal Reserve

19
20 **Q. Do these trends suggest anything in terms of cost of equity?**

21 A. Yes. As previously noted, interest rates and cost of equity tend to move in the same
22 direction; therefore, the cost of equity has declined in the past 30 years.

23
24 **Q. Do actual returns represent the cost of equity?**

25 A. No. The cost of equity represents investors' *expected* returns and not realized returns.

1 **Q. Is there any information available that leads to an understanding of the relationship**
2 **between the equity returns required for a regulated water utility and those required**
3 **in the market as a whole?**

4 A. Yes. A comparison of betas, a component of the CAPM discussed in Section VI, for the
5 water utility industry and the market, provide insight into this relationship. In theory, the
6 market has a beta value of 1.0, with stocks bearing greater risk (less risk) than the market
7 having beta values higher than (lower than) 1.0, respectively. Furthermore, in accordance
8 with the CAPM, the cost of equity capital moves in the same direction as beta. Therefore,
9 because the average beta value (0.71)² for a water utility is less than 1.0, the required
10 return on equity for a regulated water utility is below that of the market as a whole.

11
12 *Risk*

13 **Q. Please define risk in relation to cost of capital.**

14 A. Risk, as it relates to an investment, is the variability or uncertainty of the returns on a
15 particular security. Investors are risk averse and require a greater potential return to invest
16 in relatively higher risk opportunities, i.e., investors require compensation for taking on
17 additional risk. Risk is generally separated into two components. Those components are
18 market risk (systematic risk) and non-market risk (diversifiable risk or firm-specific risk).

19
20 **Q. What is market risk?**

21 A. Market risk or systematic risk is the risk of an investment that cannot be reduced through
22 diversification. Market risk stems from factors that affect all securities, such as
23 recessions, war, inflation and high interest rates. Since these factors affect the entire
24 market they cannot be eliminated through diversification. Market risk does not impact
25 each security to the same degree. The degree to which a given security's return is affected

² See Schedule JAC-7.

1 by market fluctuations can be measured using Beta. Beta reflects the business risk and the
2 financial risk of a security.

3
4 **Q. Please define business risk.**

5 A. Business risk is the fluctuation of earnings inherent in a firm's operations and
6 environment, such as competition and adverse economic conditions that may impair its
7 ability to provide returns on investment. Companies in the same or similar line of
8 business tend to experience the same fluctuations in business cycles.

9
10 **Q. Please define financial risk.**

11 A. Financial risk is the fluctuation of earnings, inherent in the use of debt financing, that may
12 impair a firm's ability to provide adequate returns; the higher the percentage of debt in a
13 company's capital structure, the greater its exposure to financial risk.

14
15 **Q. Do business risk and financial risk affect the cost of equity?**

16 A. Yes.

17
18 **Q. Is a firm subject to any other risk?**

19 A. Yes. Firms are also subject to unsystematic or firm-specific risk. Examples of
20 unsystematic risk include losses caused by labor problems, nationalization of assets, loss
21 of a big client or weather conditions. Investors can eliminate firm-specific risk by holding
22 a diverse portfolio; thus, it is not of concern to diversified investors.

1 **Q. How does New River's financial risk exposure compare to that of Staff's sample**
2 **group of water companies?**

3 A. JAC-4 shows the capital structures of the six sample water companies as of December 31,
4 2012, and New River's capital structure as of its December 31, 2011 test-year end date.
5 As shown, the sample water utilities were capitalized with approximately 51.2 percent
6 debt and 48.8 percent equity, while New River's capital structure consists of 0.0 percent
7 debt and 100.0 percent equity. Thus, unlike Staff's sample group of companies, New
8 River has no exposure to financial risk.

9
10 **Q. Is firm-specific risk measured by beta?**

11 A. No. Firm-specific risk is not measured by beta.

12
13 **Q. Is the cost of equity affected by firm-specific risk?**

14 A. No. Since firm-specific risk can be eliminated through diversification, it does not affect
15 the cost of equity.

16
17 **Q. Can investors expect additional returns for firm-specific risk?**

18 A. No. Investors who hold diversified portfolios can eliminate firm-specific risk and,
19 consequently, do not require any additional return. Since investors who choose to be less
20 than fully-diversified must compete in the market with fully-diversified investors, the
21 former cannot expect to be compensated for unique risk.

1 **VI. ESTIMATING THE COST OF EQUITY**

2 *Introduction*

3 **Q. Did Staff directly estimate the cost of equity for New River?**

4 A. No. Since New River is not a publicly-traded company, Staff is unable to directly
5 estimate its cost of equity due to the lack of firm-specific market data. Instead, Staff
6 estimated the Company's cost of equity indirectly, using a representative sample group of
7 publicly traded water utilities as a proxy, taking the average of the sample group to reduce
8 the sample error resulting from random fluctuations in the market at the time the
9 information is gathered.

10
11 **Q. What companies did Staff select as proxies or comparables for New River?**

12 A. Staff's sample consists of the following six publicly-traded water utilities: American
13 States Water, California Water, Connecticut Water Services, Middlesex Water, Aqua
14 America and SJW Corp. Staff chose these companies because they are publicly-traded
15 and receive the majority of their earnings from regulated operations.

16
17 **Q. What models did Staff implement to estimate New River's cost of equity?**

18 A. Staff used two market-based models to estimate the cost of equity for New River: the DCF
19 model and the CAPM.

20
21 **Q. Please explain why Staff chose the DCF and CAPM models.**

22 A. Staff chose to use the DCF and CAPM models because they are widely-recognized
23 market-based models and have been used extensively to estimate the cost of equity. An
24 explanation of the DCF and CAPM models follows.

1 *Discounted Cash Flow Model Analysis*

2 **Q. Please provide a brief summary of the theory upon which the DCF method of**
3 **estimating the cost of equity is based.**

4 A. The DCF method of stock valuation is based on the theory that the value of an investment
5 is equal to the sum of the future cash flows generated from the aforementioned investment
6 discounted to the present time. This method uses expected dividends, market price and
7 dividend growth rate to calculate the cost of capital. Professor Myron Gordon pioneered
8 the DCF method in the 1960s. The DCF method has become widely used to estimate the
9 cost of equity for public utilities due to its theoretical merit and its simplicity. Staff used
10 the financial information for the relevant six sample companies in the DCF model and
11 averaged the results to determine an estimated cost of equity for the sample companies.

12
13 **Q. Does Staff use more than one version of the DCF?**

14 A. Yes. Staff uses two versions of the DCF model: the constant-growth DCF and the multi-
15 stage or non-constant growth DCF. The constant-growth DCF assumes that an entity's
16 dividends will grow indefinitely at the same rate. The multi-stage growth DCF model
17 assumes the dividend growth rate will change at some point in the future.

18
19 *The Constant-Growth DCF*

20 **Q. What is the mathematical formula used in Staff's constant-growth DCF analysis?**

21 A. The constant-growth DCF formula used in Staff's analysis is:
22

Equation 2 :

$$K = \frac{D_1}{P_0} + g$$

where : K = the cost of equity
 D_1 = the expected annual dividend
 P_0 = the current stock price
 g = the expected infinite annual growth rate of dividends

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Equation 2 assumes that the entity has a constant earnings retention rate and that its earnings are expected to grow at a constant rate. According to Equation 2, a stock with a current market price of \$10 per share, an expected annual dividend of \$0.45 per share and an expected dividend growth rate of 3.0 percent per year has a cost of equity to the entity of 7.5 percent reflected by the sum of the dividend yield ($\$0.45 / \$10 = 4.5$ percent) and the 3.0 percent annual dividend growth rate.

Q. How did Staff calculate the expected dividend yield (D_1/P_0) component of the constant-growth DCF formula?

A. Staff calculated the expected yield component of the DCF formula by dividing the expected annual dividend (D_1) by the spot stock price (P_0) after the close of market on May 29, 2013, as reported by *MSN Money*.

Q. Why did Staff use the May 29, 2013, spot price rather than a historical average stock price to calculate the dividend yield component of the DCF formula?

A. The current, rather than historic, market price is used in order to be consistent with financial theory. In accordance with the Efficient Market Hypothesis, the current stock price is reflective of all available information on a stock, and as such reveals investors' expectations of future returns. Use of historical average stock prices illogically discounts

1 the most recent information in favor of less recent information. The latter is stale and is
2 representative of underlying conditions that may have changed.

3
4 **Q. How did Staff estimate the dividend growth (g) component of the constant-growth**
5 **DCF model represented by Equation 2?**

6 A. The dividend growth component used by Staff is determined by the average of six
7 different estimation methods, as shown in Schedule JAC-8. Staff calculated historical and
8 projected growth estimates on dividend-per-share (“DPS”),³ earnings-per-share (“EPS”)⁴
9 and sustainable growth bases.

10
11 **Q. Why did Staff examine EPS growth to estimate the dividend growth component of**
12 **the constant-growth DCF model?**

13 A. Historic and projected EPS growth are used because dividends are related to earnings.
14 Dividend distributions may exceed earnings in the short run, but cannot continue
15 indefinitely. In the long term, dividend distributions are dependent on earnings.

16
17 **Q. How did Staff estimate historical DPS growth?**

18 A. Staff estimated historical DPS growth by calculating a compound annual DPS growth rate
19 for each of its sample companies over the 10-year period, 2002-2012. As shown in
20 Schedule JAC-5, the average historical DPS growth rate for the sample was 3.4 percent.

21
22 **Q. How did Staff estimate projected DPS growth?**

23 A. Staff calculated an average of the projected DPS growth rates for the sample water utilities
24 from *Value Line* through the period, 2016-2018. The average projected DPS growth rate
25 is 5.2 percent, as shown in Schedule JAC-5.

³ Derived from information provided by *Value Line*.

⁴ Derived from information provided by *Value Line*.

1 **Q. How did Staff estimate historical EPS growth rate?**

2 Staff estimated historical EPS growth by calculating a compound annual EPS growth rate
3 for each of its sample companies over the 10-year period, 2002-2012. As shown in
4 Schedule JAC-5, the average historical EPS growth rate for the sample was 4.9 percent.

5
6 **Q. How did Staff estimate projected EPS growth?**

7 A. Staff calculated an average of the projected EPS growth rates for the sample water utilities
8 from *Value Line* through the period, 2016-2018. The average projected EPS growth rate
9 is 4.7 percent, as shown in Schedule JAC-5.

10
11 **Q. How does Staff calculate its historical and projected sustainable growth rates?**

12 A. Historical and projected sustainable growth rates are calculated by adding their respective
13 retention growth rate terms (br) to their respective stock financing growth rate terms (vs),
14 as shown in Schedule JAC-6.

15
16 **Q. What is retention growth?**

17 A. Retention growth is the growth in dividends due to the retention of earnings. The
18 retention growth concept is based on the theory that dividend growth cannot be achieved
19 unless the company retains and reinvests some of its earnings. The retention growth is
20 used in Staff's calculation of sustainable growth shown in Schedule JAC-6.

21
22 **Q. What is the formula for the retention growth rate?**

23 A. The retention growth rate is the product of the retention ratio and the book/accounting
24 return on equity. The retention growth rate formula is:

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Equation 3:

$$\text{Retention Growth Rate} = br$$

where: b = the retention ratio (1 – dividend payout ratio)
 r = the accounting/book return on common equity

Q. How did Staff calculate the average historical retention growth rate (br) for the sample water utilities?

A. Staff calculated the mean of the 10-year average historical retention rate for each sample company over the period, 2002-2012. As shown in Schedule JAC-6, the historical average retention (br) growth rate for the sample is 2.8 percent.

Q. How did Staff estimate its projected retention growth rate (br) for the sample water utilities?

A. Staff used the retention growth projections for the sample water utilities for the period, 2016-2018, from *Value Line*. As shown in Schedule JAC-6, the projected average retention growth rate for the sample companies is 3.8 percent.

Q. When can retention growth provide a reasonable estimate of future dividend growth?

A. The retention growth rate is a reasonable estimate of future dividend growth when the retention ratio is reasonably constant and the entity's market price to book value ("market-to-book ratio") is expected to be 1.0. The average retention ratio has been reasonably constant in recent years. However, the market-to-book ratio for the sample water utilities is 2.1, notably higher than 1.0, as shown in Schedule JAC-7.

1 **Q. Is there any financial implication of a market-to-book ratio greater than 1.0?**

2 A. Yes. A market-to-book ratio greater than 1.0 implies that investors expect an entity to
3 earn an accounting/book return on its equity that exceeds its cost of equity. The
4 relationship between required returns and expected cash flows is readily observed in the
5 fixed securities market. For example, assume an entity contemplating issuance of bonds
6 with a face value of \$10 million at either 6 percent or 8 percent and, thus, paying annual
7 interest of \$600,000 or \$800,000, respectively. Regardless of investors' required return on
8 similar bonds, investors will be willing to pay more for the bonds if issued at 8 percent
9 than if the bonds are issued at 6 percent. For example, if the current interest rate required
10 by investors is 6 percent, then they would bid \$10 million for the 6 percent bonds and
11 more than \$10 million for the 8 percent bonds. Similarly, if equity investors require a 9
12 percent return and expect an entity to earn accounting/book returns of 13 percent, the
13 market will bid up the price of the entity's stock to provide the required return of 9
14 percent.

15
16 **Q. How has Staff generally recognized a market-to-book ratio exceeding 1.0 in its cost of
17 equity analyses in recent years?**

18 A. Staff has assumed that investors expect the market-to-book ratio to remain greater than
19 1.0. Given that assumption, Staff has added a stock financing growth rate (vs) term to the
20 retention ratio (br) term to calculate its historical and projected sustainable growth rates.

21
22 **Q. Do the historical and projected sustainable growth rates Staff uses to develop its
23 DCF cost of equity in this case continue to include a stock financing growth rate
24 term?**

25 A. Yes.

1 **Q. What is stock financing growth?**

2 A. Stock financing growth is the growth in an entity's dividends due to the sale of stock by
3 that entity. Stock financing growth is a concept derived by Myron Gordon and discussed
4 in his book *The Cost of Capital to a Public Utility*.⁵ Stock financing growth is the product
5 of the fraction of the funds raised from the sale of stock that accrues to existing
6 shareholders (v) and the fraction resulting from dividing the funds raised from the sale of
7 stock by the existing common equity (s).

8
9 **Q. What is the mathematical formula for the stock financing growth rate?**

10 A. The mathematical formula for stock financing growth is:

11

Equation 4:

$$\text{Stock Financing Growth} = vs$$

where: v = Fraction of the funds raised from the sale of stock that accrues
to existing shareholders

s = Funds raised from the sale of stock as a fraction of the existing
common equity

12

13 **Q. How is the variable v presented above calculated?**

14 A. Variable v is calculated as follows:

Equation 5:

$$v = 1 - \left(\frac{\text{book value}}{\text{market value}} \right)$$

15

⁵ Gordon, Myron J. *The Cost of Capital to a Public Utility*. MSU Public Utilities Studies, Michigan, 1974. pp 31-35.

1 For example, assume that a share of stock has a \$30 book value and is selling for \$45.

2 Then, to find the value of v , the formula is applied:

$$v = 1 - \left(\frac{30}{45} \right)$$

3 In this example, v is equal to 0.33.

4
5 **Q. How is the variable s presented above calculated?**

6 A. Variable s is calculated as follows:

7
8 Equation 6:

9

$$s = \frac{\text{Funds raised from the issuance of stock}}{\text{Total existing common equity before the issuance}}$$

10

11 For example, assume that an entity has \$150 in existing equity, and it sells \$30 of stock.

12 Then, to find the value of s , the formula is applied:

$$s = \left(\frac{30}{150} \right)$$

13 In this example, s is equal to 20.0 percent.

14
15 **Q. What is the vs term when the market-to-book ratio is equal to 1.0?**

16 A. A market-to-book ratio of 1.0 reflects that investors expect an entity to earn a
17 book/accounting return on their equity investment equal to the cost of equity. When the
18 market-to-book ratio is equal to 1.0, none of the funds raised from the sale of stock by the
19 entity accrues to the benefit of existing shareholders, i.e., the term v is equal to zero (0.0).
20 Consequently, the vs term is also equal to zero (0.0). When stock financing growth is
21 zero, dividend growth depends solely on the br term.

1 **Q. What is the effect of the ν term when the market-to-book ratio is greater than 1.0?**

2 A. A market-to-book ratio greater than 1.0 reflects that investors expect an entity to earn a
3 book/accounting return on their equity investment greater than the cost of equity.
4 Equation 5 shows that, when the market-to-book ratio is greater than 1.0, the ν term is also
5 greater than zero. The excess by which new shares are issued and sold over book value
6 per share of outstanding stock is a contribution that accrues to existing stockholders in the
7 form of a higher book value. The resulting higher book value leads to higher expected
8 earnings and dividends. Continued growth from the ν term is dependent upon the
9 continued issuance and sale of additional shares at a price that exceeds book value per
10 share.

11

12 **Q. What ν estimate did Staff calculate from its analysis of the sample water utilities?**

13 A. Staff estimated an average stock financing growth of 1.9 percent for the sample water
14 utilities, as shown in Schedule JAC-6.

15

16 **Q. What would occur if an entity had a market-to-book ratio greater than 1.0 as a result
17 of investors expecting earnings to exceed its cost of equity, and subsequently
18 experienced newly-authorized rates equal only to its cost of equity?**

19 A. *Ceteris paribus*, i.e., holding all other factors constant, one would expect market forces to
20 move the company's stock price lower, closer to a market-to-book ratio of 1.0, to reflect
21 investor expectations of reduced expected future cash flows.

1 **Q. If the average market-to-book ratio of Staff's sample water utilities were to fall to 1.0**
2 **due to authorized ROEs equaling their cost of equity, would inclusion of the vs term**
3 **be necessary to Staff's constant-growth DCF analysis?**

4 A. No. As discussed above, when the market-to-book ratio is equal to 1.0, none of the funds
5 raised from the sale of stock by the entity accrues to the benefit of existing shareholders
6 because the v term equals to zero and, consequently, the vs term also equals zero. When
7 the market-to-book ratio equals 1.0, dividend growth depends solely on the br term.
8 Staff's inclusion of the vs term assumes that the market-to-book ratio continues to exceed
9 1.0 and that the water utilities will continue to issue and sell stock at prices above book
10 value with the effect of benefitting existing shareholders.

11
12 **Q. What are Staff's historical and projected sustainable growth rates?**

13 A. Staff's estimated historical sustainable growth rate is 4.7 percent based on an analysis of
14 earnings retention for the sample water companies. Staff's projected sustainable growth
15 rate is 5.7 percent based on retention growth projected by *Value Line*. Schedule JAC-6
16 presents Staff's estimates of the sustainable growth rate.

17
18 **Q. What is Staff's expected infinite annual growth rate in dividends?**

19 A. Staff's expected dividend growth rate (g) is 4.8 percent, which is the average of historical
20 and projected DPS, EPS, and sustainable growth estimates. Staff's calculation of the
21 expected infinite annual growth rate in dividends is shown in Schedule JAC-8.

22
23 **Q. What is Staff's constant-growth DCF estimate for the sample utilities?**

24 A. Staff's constant-growth DCF estimate is 7.8 percent, as shown in Schedule JAC-3.

1 *The Multi-Stage DCF*

2 **Q. Why did Staff implement the multi-stage DCF model to estimate New River's cost of**
3 **equity?**

4 A. Staff generally uses the multi-stage DCF model to consider the assumption that dividends
5 may not grow at a constant rate. The multi-stage DCF uses two stages of growth, the first
6 stage (near-term) having a four-year duration, followed by the second stage (long-term) of
7 constant growth.

8
9 **Q. What is the mathematical formula for the multi-stage DCF?**

10 A. The multi-stage DCF formula is shown in the following equation:
11

Equation 7 :

$$P_0 = \sum_{t=1}^n \frac{D_t}{(1+K)^t} + \frac{D_n(1+g_n)}{K-g_n} \left[\frac{1}{(1+K)} \right]^n$$

Where : P_0 = current stock price
 D_t = dividends expected during stage 1
 K = cost of equity
 n = years of non - constant growth
 D_n = dividend expected in year n
 g_n = constant rate of growth expected after year n

12
13 **Q. What steps did Staff take to implement its multi-stage DCF cost of equity model?**

14 A. First, Staff projected future dividends for each of the sample water utilities using near-
15 term and long-term growth rates. Second, Staff calculated the rate (cost of equity) which
16 equates the present value of the forecasted dividends to the current stock price for each of

1 the sample water utilities. Lastly, Staff calculated an overall sample average cost of
2 equity estimate.

3
4 **Q. How did Staff calculate near-term (stage-1) growth?**

5 A. The stage-1 growth rate is based on *Value Lines*'s projected dividends for the next twelve
6 months, when available, and on the average dividend growth (g) rate of 4.8 percent,
7 calculated in Staff's constant DCF analysis for the remainder of the stage.

8
9 **Q. How did Staff estimate long-term (stage-2) growth?**

10 A. Staff calculated the stage-2 growth rate using the arithmetic mean rate of growth in Gross
11 Domestic Product ("GDP") from 1929 to 2011.⁶ Using the GDP growth rate assumes that
12 the water utility industry is expected to grow at the same rate as the overall economy.

13
14 **Q. What is the historical GDP growth rate that Staff used to estimate stage-2 growth?**

15 A. Staff used 6.5 percent to estimate the stage-2 growth rate.

16
17 **Q. What is Staff's multi-stage DCF estimate for the sample utilities?**

18 A. Staff's multi-stage DCF estimate is 9.4 percent, as shown in Schedule JAC-3.

19
20 **Q. What is Staff's overall DCF estimate for the sample utilities?**

21 A. Staff's overall DCF estimate is 8.6 percent. Staff calculated the overall DCF estimate by
22 averaging the constant growth DCF (7.8%) and multi-stage DCF (9.4%) estimates, as
23 shown in Schedule JAC-3.

⁶ www.bea.doc.gov.

1 *Capital Asset Pricing Model*

2 **Q. Please describe the CAPM.**

3 A. The CAPM is used to determine the prices of securities in a competitive market. The
4 CAPM model describes the relationship between a security's investment risk and its
5 market rate of return. Under the CAPM, an investor requires the expected return of a
6 security to equal the rate on a risk-free security plus a risk premium. If the investor's
7 expected return does not meet or beat the required return, the investment is not
8 economically justified. The model also assumes that investors will sufficiently diversify
9 their investments to eliminate any non-systematic or unique risk.⁷ In 1990, Professors
10 Harry Markowitz, William Sharpe, and Merton Miller earned the Nobel Prize in
11 Economic Sciences for their contribution to the development of the CAPM.

12
13 **Q. Did Staff use the same sample water utilities in its CAPM and DCF cost of equity
14 estimation analyses?**

15 A. Yes. Staff's CAPM cost of equity estimation analysis uses the same sample water
16 companies as its DCF cost of equity estimation analysis.

17
18 **Q. What is the mathematical formula for the CAPM?**

19 A. The mathematical formula for the CAPM is:
20

⁷ The CAPM makes the following assumptions: 1) single holding period; 2) perfect and competitive securities market; 3) no transaction costs; 4) no restrictions on short selling or borrowing; 5) the existence of a risk-free rate; and 6) homogeneous expectations.

1

Equation 8:

$$K = R_f + \beta (R_m - R_f)$$

where: R_f = risk free rate
 R_m = return on market
 β = beta
 $R_m - R_f$ = market risk premium
 K = expected return

2

The equation shows that the expected return (K) on a risky asset is equal to the risk-free interest rate (R_f) plus the product of the market risk premium ($R_m - R_f$) multiplied by beta (β) where beta represents the riskiness of the investment relative to the market.

5

6 **Q. What is the risk-free rate?**

7 A. The risk-free rate is the rate of return of an investment free of default risk.

8

9 **Q. What does Staff use as surrogates to represent estimations of the risk-free rates of**
10 **interest in its historical and current market risk premium CAPM methods?**

11 A. Staff uses separate parameters as surrogates for the estimations of the risk-free rates of
12 interest for the historical market risk premium CAPM cost of equity estimation and the
13 current market risk premium CAPM cost of equity estimation. Staff uses the average of
14 three (5-, 7-, and 10-year) intermediate-term U.S. Treasury securities' spot rates in its
15 historical market risk premium CAPM cost of equity estimation, and the 30-year U.S.
16 Treasury bond spot rate in its current market risk premium CAPM cost of equity
17 estimation. Rates on U.S. Treasuries are largely verifiable and readily available.

18

1 **Q. What does beta measure?**

2 A. Beta is a measure of a security's price volatility, or systematic risk, relative to the market
3 as a whole. Since systematic risk cannot be diversified away, it is the only risk that is
4 relevant when estimating a security's required return. Using a baseline market beta
5 coefficient of 1.0, a security having a beta value less than 1.0 will be less volatile (i.e., less
6 risky) than the market. A security with a beta value greater than 1.0 will be more volatile
7 (i.e., more risky) than the market.

8
9 **Q. How did Staff estimate New River's beta?**

10 A. Staff used the average of the *Value Line* betas for the sample water utilities as a proxy for
11 the Company's beta. Schedule JAC-7 shows the *Value Line* betas for each of the sample
12 water utilities. The 0.71 average beta coefficient for the sample water utilities is Staff's
13 estimated beta value for New River. A security with a beta value of 0.71 has less
14 volatility than the market.

15
16 **Q. What is the market risk premium ($R_m - R_f$)?**

17 A. The market risk premium is the expected return on the market, minus the risk-free rate.
18 Simplified, it is the return an investor expects as compensation for market risk.

19
20 **Q. What did Staff use for the market risk premium?**

21 A. Staff uses separate calculations for the market risk premium in its historical and current
22 market risk premium CAPM methods.

23

1 **Q. How did Staff calculate an estimate for the market risk premium in its historical**
2 **market risk premium CAPM method?**

3 A. Staff uses the intermediate-term government bond income returns published in the
4 Ibbotson Associates' *Stocks, Bonds, Bills, and Inflation 2012 Yearbook* to calculate the
5 historical market risk premium. Ibbotson Associates calculates the historical risk
6 premium by averaging the historical arithmetic differences between the S&P 500 and the
7 intermediate-term government bond income returns for the period 1926-2011. Staff's
8 historical market risk premium estimate is 7.1 percent, as shown in Schedule JAC-3.

9
10 **Q. How did Staff calculate an estimate for the market risk premium in its current**
11 **market risk premium CAPM method?**

12 A. Staff solves equation 8 above to arrive at a market risk premium using a DCF-derived
13 expected return (K) of 10.88 (2.1 + 8.78⁸) percent using the expected dividend yield (2.1
14 percent over the next twelve months) and the annual per share growth rate (8.78 percent)
15 that *Value Line* projects for all dividend-paying stocks under its review⁹ along with the
16 current long-term risk-free rate (30-year Treasury note at 3.27 percent) and the market's
17 average beta of 1.0. Staff calculated the current market risk premium as 7.61 percent,¹⁰ as
18 shown in Schedule JAC-3.

19
20 **Q. What is the result of Staff's historical market risk premium CAPM and current**
21 **market risk premium CAPM cost of equity estimations for the sample utilities?**

22 A. Staff's cost of equity estimates are 6.6 percent using the historical market risk premium
23 CAPM and 8.7 percent using the current market risk premium CAPM.

24

⁸ The three to five year price appreciation is 40%. $1.40^{0.25} - 1 = 8.78\%$.

⁹ May 31, 2013 issue date.

¹⁰ $10.88\% = 3.27\% + (1) (7.61\%)$.

1 **Q. What is Staff's overall CAPM estimate for the sample utilities?**

2 A. Staff's overall CAPM cost of equity estimate is 7.7 percent which is the average of the
3 historical market risk premium CAPM (6.6 percent) and the current market risk premium
4 CAPM (8.7 percent) estimates, as shown in Schedule JAC-3.

5

6 **VII. SUMMARY OF STAFF'S COST OF EQUITY ANALYSIS**

7 **Q. What is the result of Staff's constant-growth DCF analysis to estimate the cost of**
8 **equity for the sample water utilities?**

9 A. Schedule JAC-3 shows the result of Staff's constant-growth DCF analysis. The result of
10 Staff's constant-growth DCF analysis is as follows:

11

12

$$k = 3.0\% + 4.8\%$$

13

14

$$k = 7.8\%$$

15

16

Staff's constant-growth DCF estimate of the cost of equity for the sample water utilities is
17 7.8 percent.

18

19 **Q. What is the result of Staff's multi-stage DCF analysis to estimate of the cost of equity**
20 **for the sample utilities?**

21 A. Schedule JAC-9 shows the result of Staff's multi-stage DCF analysis. The result of
22 Staff's multi-stage DCF analysis is:

23

24

25

26

27

28

29

Company	Equity Cost Estimate (k)
American States Water	8.8%
California Water	9.7%
Aqua America	8.5%
Connecticut Water	9.8%

1	Middlesex Water	10.2%
2	SJW Corp	<u>9.1%</u>
3		
4	Average	9.4%
5		

6 Staff's multi-stage DCF estimate of the cost of equity for the sample water utilities is 9.4
7 percent.

8

9 **Q. What is Staff's overall DCF estimate of the cost of equity for the sample utilities?**

10 A. Staff's overall DCF estimate of the cost of equity for the sample utilities is 8.6 percent.
11 Staff calculated an overall DCF cost of equity estimate by averaging Staff's constant
12 growth DCF (7.8 percent) and Staff's multi-stage DCF (9.4 percent) estimates, as shown
13 in Schedule JAC-3.

14

15 **Q. What is the result of Staff's historical market risk premium CAPM analysis to
16 estimate of the cost of equity for the sample utilities?**

17 A. Schedule JAC-3 shows the result of Staff's CAPM analysis using the historical risk
18 premium estimate. The result is as follows:

19

20 $k = 1.6\% + 0.71 * 7.1\%$

21

21 $k = 6.6\%$

22

23 Staff's CAPM estimate (using the historical market risk premium) of the cost of equity to
24 the sample water utilities is 6.6 percent.

25

1 **Q. What is the result of Staff's current market risk premium CAPM analysis to**
2 **estimate the cost of equity for the sample utilities?**

3 A. Schedule JAC-3 shows the result of Staff's CAPM analysis using the current market risk
4 premium estimate. The result is:

5
$$k = 3.3\% + 0.71 * 7.6\%$$

6
7
$$k = 8.7\%$$

8
9 Staff's CAPM estimate (using the current market risk premium) of the cost of equity to the
10 sample water utilities is 8.7 percent.

11
12 **Q. What is Staff's overall CAPM estimate of the cost of equity for the sample utilities?**

13 A. Staff's overall CAPM estimate for the sample utilities is 7.7 percent. Staff's overall
14 CAPM estimate is the average of the historical market risk premium CAPM (6.6 percent)
15 and the current market risk premium CAPM (8.7 percent) estimates, as shown in Schedule
16 JAC-3.

17
18 **Q. Please summarize the results of Staff's cost of equity analysis for the sample utilities.**

19 A. The following table shows the results of Staff's cost of equity analysis:

20
21

Table 2

Method	Estimate
Average DCF Estimate	8.6%
Average CAPM Estimate	7.7%
Overall Average	8.2%

22
23

Staff's average estimate of the cost of equity to the sample water utilities is 8.2 percent.

1 **VIII. FINAL COST OF EQUITY ESTIMATES FOR NEW RIVER**

2 **Q. Please compare New River's capital structure to that of the six sample water**
3 **companies.**

4 A. The average capital structure for the sample water utilities is composed of 48.8 percent
5 common equity and 51.2 percent debt, as shown in Schedule JAC-4. New River's capital
6 structure is composed of 100.0 percent common equity and 0.0 percent debt. In this case,
7 since New River's capital structure is less leveraged than that of the average sample water
8 utility, its stockholders bear less financial risk than do common stock shareholders of the
9 sample water utility companies.

10
11 **Q. Does New River's decreased financial risk affect its cost of equity?**

12 A. Yes. As previously discussed, financial risk is a component of market risk and investors
13 require compensation for market risk. Since New River's financial risk exposure is less
14 than that of the average sample water companies, its cost of equity is lower than that of the
15 sample water companies.

16
17 **Q. Is Staff recommending a downward financial risk adjustment to the Company's cost**
18 **of equity to recognize its lower financial risk?**

19 A. No. Staff normally applies two criteria in assessing whether application of a downward
20 financial risk adjustment is appropriate. The first consideration is whether the utility has a
21 reasonably economical capital structure. Staff considers a capital structure composed of
22 no more than 60 percent equity to meet this condition. If equity exceeds 60 percent, as it
23 does for New River, Staff considers application of a downward financial risk adjustment
24 to be appropriate if the utility meets the second criteria. The second condition is whether
25 the utility has access to equity capital markets. Although New River's equity exceeds 60
26 percent, it does not have access to the equity capital markets; accordingly, Staff is not

1 recommending a downward financial risk adjustment to the Company's cost of equity.
2 Staff's methodology for applying a downward financial risk adjustment encourages a
3 utility with access to the equity capital markets to use that access to manage its capital
4 structure with economic efficiency and encourages a utility that lacks access to the equity
5 capital markets to maintain a healthy capital structure.

6
7 **Q. Did Staff consider factors other than the results of its technical models in its cost of**
8 **equity analysis?**

9 A. Yes. In consideration of the relatively uncertain status of the economy and the market that
10 currently exists, Staff is proposing an Economic Assessment Adjustment to the cost of
11 equity. In this case, Staff recommends a 60 basis point (0.6 percent) upward Economic
12 Assessment Adjustment, as shown in Schedule JAC-3.

13
14 **Q. What is Staff's ROE estimate for New River?**

15 A. Staff determined a COE estimate of 8.2 percent for New River based on cost of equity
16 estimates for the sample companies of 8.6 percent from the DCF and 7.7 percent from the
17 CAPM. Staff recommends adoption of a 60 basis point upward Economic Assessment
18 Adjustment resulting in an 8.8 percent Staff-recommended ROE, as shown in Schedule
19 JAC-3.

20
21 **IX. FINAL WEIGHTED AVERAGE COST OF CAPITAL**

22 **Q. What weighted average cost of capital did Staff determine for New River?**

23 A. Staff determined an 8.8 percent WACC for the Company, as shown in Schedule JAC-1
24 and the following table:
25

Table 3

	Weight	Cost	Weighted Cost
Long-term Debt	0.0%	0.0%	0.0%
Common Equity	100.0%	8.8%	<u>8.8%</u>
Weighted Average Cost of Capital			<u>8.8%</u>

X. FAIR VALUE RATE OF RETURN (“FVROR”) RECOMMENDATION

Q. What FVROR does the Company propose in this proceeding?

A. The Company proposes an 8.72 percent FVROR. New River’s proposed FVROR represents its proposed 10.00 percent cost of equity, less a 1.28 percent fair value inflation adjustment ($10.00\% - 1.28\% = 8.72\%$). In making its FVROR calculation, the Company utilized the methodology recommended by Staff in an earlier docket,¹¹ and adopted by the Commission in Decision No. 71308.¹²

Q. What FVROR does Staff Recommend for New River?

A. Staff recommends a 7.6 percent FVROR for the Company, as shown in Schedule JAC-1.

Q. How did Staff calculate its recommended FVROR?

A. Like the Company, Staff calculated the FVROR utilizing the methodology previously adopted in Decision No. 71308¹³ for Chaparral City Water Company, Inc.¹⁴ In short, the FVROR methodology used deducts from the WACC an inflation adjustment/accretion return. The method Staff used in this case differs from the prior method in that Staff used

¹¹ Chaparral City Water Co., Docket No. W-02113A-07-0551.

¹² Dated October 21, 2009.

¹³ See Decision No. 71308, p. 43, footnote 258.

¹⁴ Docket No. W-02113A-07-0551.

1 the yield on 30-year United States Treasury bonds instead of the yield on 20-year U.S.
2 Treasury bonds to calculate the portion of the return required by investor due to inflation
3 (i.e., accretion return). The preferred term for calculating the accretion term is that which
4 most closely matches the weighted average expected life of the plant included in the fair
5 value rate base. Thirty years more closely reflects the weighted average life of the plant
6 included in the fair value rate base than does 20 years.¹⁵ At the time the case resulting in
7 Decision No. 71308 was processed, 20 years was the longest term available for Treasury
8 Inflation Protected Securities (“TIPS”) which are used in the calculation of the accretion
9 return. The U.S. Treasury initiated the sale of 30-year TIPS on February 22, 2010.

10
11 **Q. How did Staff calculate the inflation adjustment/accretion return?**

12 **A.** Staff first calculated the difference between the nominal yield (i.e., unadjusted for
13 inflation) on the 30-year U.S. Treasury bond and the real yield (i.e., inflation adjusted) on
14 the same 30-year treasury security. The spread between the nominal and real yields on the
15 30-year treasury security is reflective of the additional return (i.e., the inflation
16 adjustment/accretion return) required by investors for the loss of purchasing power due to
17 inflation over this same 30-year horizon. Since the OCRB, which does not include
18 inflation, represents 50 percent of the FVRB, Staff reduced the accretion return by 50
19 percent resulting in a modified inflation adjustment/accretion return to deduct from the
20 WACC for purposes of calculating the FVROR. Details of Staff’s inflation
21 adjustment/accretion return calculation are presented in Schedule JAC-2.

22

¹⁵ Thirty years reflects a 3.33 percent depreciation rate and 20 years reflects a 5.0 percent depreciation rate.

1 **Q. Did Staff use spot U.S. Treasury security yields for purposes of making its FVROR**
2 **estimate?**

3 A. Yes. Staff used the closing spot nominal and real yields on the 30-year U.S. Treasury
4 bond as of May 29, 2013, to correspond with the spot price date selected for Staff's
5 sample companies. Use of the current bond yield is consistent with financial theory (i.e.,
6 the Efficient Market Hypothesis).

7
8 **XI. STAFF RESPONSE TO COMPANY'S COST OF CAPITAL WITNESS MR. RAY**
9 **L. JONES**

10 **Q. Does Mr. Jones provide market based support for his recommended 10.0 percent**
11 **cost of equity?**

12 A. No. Mr. Jones' testimony was not supported by any market based analysis of the cost of
13 equity. Instead, he based his proposed 10.0 percent cost of equity upon a review of the
14 returns authorized by the Commission in six recent rate cases.¹⁶ The cost of equity varies
15 over time and the cost of equity is dependent upon capital structure that should be adjusted
16 to reflect differences among the sample companies.

17
18 **XI. CONCLUSION**

19 **Q. Please summarize Staff's recommendations.**

20 A. Staff recommends that the Commission adopt an 8.8 percent WACC for New River in this
21 proceeding based on a capital structure composed of 0.0 percent debt and 100.0 percent
22 equity, Staff's 8.2 percent cost of equity estimate and Staff's 60 basis point (0.6 percent)
23 upward economic assessment adjustment.

24

¹⁶ Direct Testimony of Ray L. Jones, pp. 16-17. Among the six rate filings upon which Mr. Jones based his 10.0 percent cost of equity, five were 2010 dockets and one was a 2009 docket.

1 Staff further recommends that the Commission adopt a 7.6 percent FVROR for the
2 Company, reflecting a 1.2 percent inflation adjustment/accretion return deduction from the
3 WACC, as shown in Schedule JAC-1.

4

5 **Q. Does this conclude your Direct Testimony?**

6 **A. Yes, it does.**

New River Utility Company Cost of Capital Calculation
 Capital Structure &
 Weighted Average Cost of Capital &
 Fair Value Rate of Return
 Staff Recommended and Company Proposed

[A]	[B]	[C]	[D]
<u>Description</u>	<u>Weight (%)</u>	<u>Cost</u>	<u>Weighted Cost</u>
Staff Recommended Structure			
Debt	0.0%	0.0%	0.0%
Common Equity	100.0%	8.8%	<u>8.8%</u>
Weighted Average Cost of Capital			8.8%
Less: Accretion Return			<u>1.2%</u>
Fair Value Rate of Return			7.6%
Company Proposed Structure			
Debt	0.0%	0.0%	0.0%
Common Equity	100.0%	10.0%	10.0%
Weighted Average Cost of Capital			10.00%
Less: Accretion Return			<u>1.28%</u>
Fair Value Rate of Return			8.72%

[D] : [B] x [C]

Supporting Schedules: JAC-3 and JAC-4.

New River Utility Company Cost of Capital Calculation
 Inflation Adjustment (Accretion Return)
 Included in the Fair Value Rate of Return
 Staff Recommended:

<u>Description</u>	
Weighted Average Cost of Capital	8.8% ¹
Less: Modified Inflation Adjustment/Accretion Return	1.2% ²
Fair Value Rate of Return	<u>7.6%</u>

¹ Schedule JAC-1

² Calculation of Modified Inflation Adjustment/Accretion Return:

30-Year Treasury Yield (as of 5/29/2013) -- Nominal ³	3.27%
Less: 30-Year Treasury Yield (@ 5/29/2013) -- Real ³	<u>0.91%</u>
Return Required by Investors due to Inflation (Accretion Return)	2.36%
Times: 50% factor ⁴	<u>0.5</u>
Inflation Adjustment (rounded to one decimal point)	1.2%

³ <http://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/default.aspx>

⁴ This factor recognizes that the OCRB represents 50% of the FVRB, and the the OCRB includes no inflation.

Note: The above Fair Value Rate of Return calculation is consistent with the methodology adopted in Decision No. 71308 (dated October 21, 2009) with one exception. Specifically, the methodology adopted in Decision No. 71308 utilized a 20-year Treasury yield to determine the return required by investors due to inflation (i.e., accretion yield), as this was the longest term Treasury Inflation Protected Securities ("TIPS") instrument available at the time. However, beginning on February 22, 2010, the Treasury initiated the sale of a new 30-year TIP security, and expanded its analysis to allow for the calculation of an inflation adjustment/accretion return based upon a 30-year Treasury yield. Accordingly, Staff's analysis incorporates the use of a 30-year Treasury yield in order to more accurately reflect the impact of inflation over the life of the Company's plant as reflected in its weighted average depreciation/amortization rate.

New River Utility Company Cost of Capital Calculation
Average Capital Structure of Sample Water Utilities

[A]	[B]	[C]	[D]
<u>Company</u>	<u>Debt</u>	<u>Common Equity</u>	<u>Total</u>
American States Water	43.3%	56.7%	100.0%
California Water	54.2%	45.8%	100.0%
Aqua America	55.2%	44.8%	100.0%
Connecticut Water	55.3%	44.7%	100.0%
Middlesex Water	43.1%	56.9%	100.0%
SJW Corp	<u>56.2%</u>	<u>43.8%</u>	<u>100.0%</u>
Average Sample Water Utilities	51.2%	48.8%	100.0%
New River - Actual Capital Structure	0.0%	100.0%	100.0%

Source:

Sample Water Companies from Value Line

New River Utility Company Cost of Capital Calculation
Growth in Earnings and Dividends
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]
<u>Company</u>	Dividends Per Share 2002 to 2012 <u>DPS¹</u>	Dividends Per Share Projected <u>DPS¹</u>	Earnings Per Share 2002 to 2012 <u>EPS^{1,2}</u>	Earnings Per Share Projected <u>EPS¹</u>
American States Water	3.9%	6.0%	7.7%	1.2%
California Water	1.2%	7.4%	5.0%	5.8%
Aqua America	7.7%	8.3%	7.3%	8.0%
Connecticut Water	1.7%	2.8%	3.2%	2.1%
Middlesex Water	1.6%	1.6%	2.1%	5.0%
SJW Corp	<u>4.4%</u>	<u>4.9%</u>	<u>4.2%</u>	<u>6.3%</u>
Average Sample Water Utilities	3.4%	5.2%	4.9%	4.7%

¹ Value Line

² Negative values are inconsistent with the DCF, accordingly, they are excluded from the average.

New River Utility Company Cost of Capital Calculation
Sustainable Growth
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]
<u>Company</u>	Retention Growth 2002 to 2012 <u>br</u>	Retention Growth Projected <u>br</u>	Stock Financing Growth <u>vs</u>	Sustainable Growth 2002 to 2012 <u>br + vs</u>	Sustainable Growth Projected <u>br + vs</u>
American States Water	3.8%	5.6%	1.5%	5.4%	7.1%
California Water	2.4%	3.2%	1.5%	3.9%	4.7%
Aqua America	3.9%	4.4%	1.9%	5.8%	6.4%
Connecticut Water	2.0%	3.0%	3.7%	5.6%	6.7%
Middlesex Water	1.2%	2.8%	2.9%	4.1%	5.7%
SJW Corp	<u>3.5%</u>	<u>3.8%</u>	<u>0.1%</u>	<u>3.6%</u>	<u>3.9%</u>
Average Sample Water Utilities	2.8%	3.8%	1.9%	4.7%	5.7%

[B]: Value Line

[C]: Value Line

[D]: Value Line and MSN Money

[E]: [B]+[D]

[F]: [C]+[D]

New River Utility Company Cost of Capital Calculation
 Selected Financial Data of Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]	[G]
<u>Company</u>	<u>Symbol</u>	<u>Spot Price</u> 5/29/2013	<u>Book Value</u>	<u>Mkt To</u> <u>Book</u>	<i>Value Line</i> Beta β	Raw Beta β_{raw}
American States Water	AWR	53.46	23.29	2.3	0.70	0.52
California Water	CWT	19.82	11.51	1.7	0.65	0.45
Aqua America	WTR	31.81	9.81	3.2	0.60	0.37
Connecticut Water	CTWS	28.78	13.87	2.1	0.75	0.60
Middlesex Water	MSEX	19.65	11.88	1.7	0.70	0.52
SJW Corp	SJW	27.30	15.09	<u>1.8</u>	<u>0.85</u>	<u>0.75</u>
Average				2.1	0.71	0.53

[C]: Msn Money
 [D]: Value Line
 [E]: [C] / [D]
 [F]: Value Line
 [G]: (-0.35 + [F]) / 0.67

New River Utility Company Cost of Capital Calculation
Calculation of Expected Infinite Annual Growth in Dividends
Sample Water Utilities

[A] <u>Description</u>	[B] <u>g</u>
DPS Growth - Historical ¹	3.4%
DPS Growth - Projected ¹	5.2%
EPS Growth - Historical ¹	4.9%
EPS Growth - Projected ¹	4.7%
Sustainable Growth - Historical ²	4.7%
<u>Sustainable Growth - Projected²</u>	<u>5.7%</u>
Average	4.8%

¹ Schedule JAC-5

² Schedule JAC-6

New River Utility Company Cost of Capital Calculation
 Multi-Stage DCF Estimates
 Sample Water Utilities

[A] Company	[B] Current Mkt. Price (P_0) ¹ 5/29/2013	[C] Projected Dividends ² (Stage 1 growth)	[D] (D_t)	[E] d ₁	[F] d ₂	[F] d ₃	[F] d ₄	[H] Stage 2 growth ³ (g_n)	[I] Equity Cost Estimate (K) ⁴
American States Water	53.5	1.30	1.37	1.43	1.50	6.5%	8.8%		
California Water	19.8	0.66	0.69	0.72	0.76	6.5%	9.7%		
Aqua America	31.8	0.67	0.70	0.73	0.77	6.5%	8.5%		
Connecticut Water	28.8	0.98	1.03	1.08	1.13	6.5%	9.8%		
Middlesex Water	19.7	0.75	0.78	0.82	0.86	6.5%	10.2%		
SJW Corp	27.3	0.74	0.78	0.82	0.86	6.5%	9.1%		

$$P_0 = \sum_{t=1}^n \frac{D_t}{(1+K)^t} + \frac{D_n(1+g_n)}{K-g_n} \left[\frac{1}{(1+K)} \right]^n$$

Average 9.4%

- Where :
- P_0 = current stock price
 - D_t = dividends expected during stage 1
 - K = cost of equity
 - n = years of non - constant growth
 - D_n = dividend expected in year n
 - g_n = constant rate of growth expected after year n

1 [B] see Schedule JAC-7

2 Derived from Value Line Information

3 Average annual growth in GDP 1929 - 2011 in current dollars.

4 Internal Rate of Return of Projected Dividends