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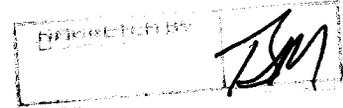
BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

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

Arizona Corporation Commission
DOCKETED

FEB 13 2013



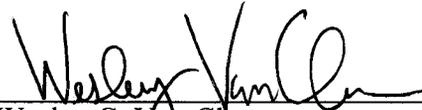
DOCKET NO. WS-03478A-12-0307

IN THE MATTER OF THE APPLICATION OF FAR WEST WATER AND SEWER, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS WASTEWATER RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE.

STAFF'S NOTICE OF FILING DIRECT TESTIMONIES

The Utilities Division ("Staff") of the Arizona Corporation Commission ("Commission") hereby files Direct Testimonies (except rate design) of Gerald W. Becker, Jian W. Liu and John A. Cassidy.

RESPECTFULLY SUBMITTED this 13th day of February, 2013.


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Original and thirteen (13) copies of the foregoing filed this 13th day of February, 2013, with:

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BEFORE THE ARIZONA CORPORATION COMMISSION

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

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FAR WEST WATER & SEWER COMPANY, INC.,)
AN ARIZONA CORPORATION, FOR A)
DETERMINATION OF THE CURRENT)
FAIR VALUE OF ITS UTILITY PLANT AND)
PROPERTY AND FOR INCREASES IN ITS)
WASTEWATER RATES AND CHARGES BASED)
THEREON FOR UTILITY SERVICE)
_____)

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

FEBRUARY 13, 2013

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EXECUTIVE SUMMARY
FAR WEST WATER & SEWER COMPANY, INC.
DOCKET NO. WS-03478A-12-0307

Far West Water & Sewer Company, Inc. ("Far West" or "Company") is an Arizona public service corporation authorized to provide water and wastewater service within portions of Yuma County, Arizona. On July 6, 2012, the Company filed an application with the Arizona Corporation Commission ("Commission" or "ACC") to increase its rates for wastewater service. The Company's existing Certificate of Convenience and Necessity ("CC&N") for wastewater service covers an area totaling approximately 4,335 acres. Far West had over 7,400 residential wastewater customers, 45 commercial wastewater customers and 4 recreational vehicle parks over 700. This rate case filing includes only the wastewater division.

Far West states that its rate base has increased from \$1,549,650 in its prior rate case, which used a 2004 test year, to \$22,800,578 using a 2011 test year in this proceeding. In its application, the Company indicates that it incurred an adjusted test year operating loss of \$1,187,812 resulting in a negative rate of return.

The Company proposes a revenue increase of \$3,866,046 or 173.52 percent over the Company proposed test year revenues of \$2,227,982 to \$6,094,028. The Company proposed revenue increase would produce an operating income of \$1,689,390 for a 7.41 percent rate of return on an original cost rate base ("OCRB") of \$22,800,578. Staff recommends a revenue increase of \$3,351,423 or 150.42 percent over the test year revenues of \$2,227,982 to \$5,579,404. The Staff recommended revenue increase would produce an operating income of \$1,405,880 for a 7.40 percent rate of return on a Staff adjusted OCRB of \$18,998,380. The Company proposes to use OCRB as its fair value rate base.

1 **INTRODUCTION**

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

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

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

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

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

15 A. I received a Masters of Business Administration with an emphasis in Accounting from
16 Pace University. I am a Certified Public Accountant and a Certified Internal Auditor.

17
18 I have participated in multiple rate, financing and other regulatory proceedings. I attended
19 the National Association of Regulatory Utility Commissioners ("NARUC") Utilities Rate
20 School.

21
22 I began employment with the Commission as a utilities regulatory analyst in April 2006.
23 Prior to joining the Commission, I worked as an Auditor at the Department of Economic
24 Security and Department of Revenue in the Taxpayer Assistance Section. Prior to those
25 jobs, I worked for 15 years as an Auditor, Analyst, Financial Analyst, and Budget
26 Manager at United Illuminating, an investor-owned electric company in New Haven, CT.

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

2 A. I am presenting Staff's analysis and recommendations in the areas of rate base, operating
3 revenues and expenses, revenue requirement, and rate design recommendations regarding
4 the wastewater district included in the application of Far West Water and Sewer
5 Company, Inc. ("Far West" or "Company") for a permanent rate increase. Staff witness
6 John Cassidy is presenting Staff's cost of capital recommendations. Staff witness Jian Liu
7 is presenting Staff's engineering analysis and recommendations.

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

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

16
17 **BACKGROUND**

18 **Q. Please describe the Company's operations.**

19 A. With two shareholders, Far West is a very closely held corporation that provides water and
20 wastewater services in portions of Yuma County Arizona. Far West has approximately
21 7,400 wastewater customers and approximately 15,000 water customers. The instant
22 filing only addresses wastewater rates.

23
24 Far West's current rates were approved in Decision No. 69335 dated February 20, 2007.

1 **Q. What are the primary reasons for the Company's requested permanent rate**
2 **increase?**

3 A. Far West states that its rate base has increased from \$1,549,650 in its prior rate case which
4 used a 2004 test year, to \$22,800,578 using a 2011 test year in this proceeding. In its
5 application, the Company indicates that it incurred an adjusted test year operating loss of
6 \$1,187,812 resulting in a negative rate of return.

7

8 **CONSUMER SERVICE**

9 **Q. Please provide a brief history of customer complaints received by the Commission**
10 **regarding Far West.**

11 A. A search of the Consumer Services database reveals that the following customer
12 Complaints and Opinions were filed against Far West from January 1, 2010 through the
13 current date:

14

15 **2013 – Zero Complaints**
16 **35 Opinions – All opposed plus 37 Petitions with 396 signatures opposed**

17

18 **2012 – One Complaint – Billing**
19 **Zero opinions**

20

21 **2011 – One Complaint – Disconnect Non-Pay**

22

23 **2010 – Five Complaints – One - New Service, Four – Billing**

24

25 All complaints have been resolved and are closed.

26

27 **SUMMARY OF PROPOSED REVENUES**

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

29 A. The Company proposes a revenue increase of \$3,866,046, or 173.52 percent increase from
30 \$2,227,982 to \$6,094,028 for wastewater customers. The Company's proposed rates

1 would increase the flat rate residential bill by \$40.90, or 188.05 percent, from \$21.75 to
2 \$62.65.

3
4 **Q. Please summarize Staff's recommended revenue.**

5 A. Staff recommends a \$3,351,423 or 150.42 percent, revenue increase from \$2,227,982 to
6 \$5,579,404. Staff's proposed revenue increase would produce an operating income of
7 \$1,405,880 for a 7.40 percent rate of return on an original cost rate base of \$18,898,380.
8 The impact of Staff's recommended rates on the typical residential bill will be discussed
9 in subsequent rate design testimony.

10
11 **Q. Please compare Staff's recommended revenue requirement with the Company's
12 proposal.**

13 A. Staff's recommended revenue of \$5,579,404 is \$514,623 or 8.44 percent less than the
14 Company's proposed revenue of \$6,094,028.

15
16 **Q. What test year did the Company utilize for this filing?**

17 A. Far West's rate filing is based on the twelve months ended December 31, 2011 ("test
18 year").

19
20 **Q. Please summarize the rate base and operating income recommendations and
21 adjustments addressed in your testimony for Far West.**

22 A. A summary of my testimony on rate base and operating income follows:
23

1 **Staff-Recommended Rate Base Adjustments:**

2 Plant in Service – These adjustments decrease plant by \$4,782,944.

3 Accumulated Depreciation – These adjustments decrease accumulated depreciation by
4 \$358,000.

5 Advances in Aid of Construction (“AIAC”) – These adjustments decrease AIAC by
6 \$983,459.

7 Working Capital – This adjustment decreases the cash working capital component of
8 Working Capital by \$360,713.

9 **Staff-Recommended Operating Income Adjustments:**

10 Salaries and Wages – Officers and Directors – This adjustment decreases test year
11 expenses by \$60,247 to reflect the limited involvement of one of the owners who receives
12 a salary.

13 Legal Expense – This adjustment decreases Legal Expense by \$32,975 from \$43,865 to
14 \$10,890 to reflect a normalized amount of Legal Expense.

15 Bad Debt Expense – This adjustment decreases Bad Debt Expense by \$20,450 from
16 \$33,490 to \$13,040 to reflect a normalized amount of Bad Debt Expense.

17 Depreciation Expense – This adjustment decreases Depreciation Expense by \$205,622
18 from \$1,497,193 to \$1,291,571 to reflect application of Staff’s recommended depreciation
19 rates to Staff’s recommended plant balances in this proceeding.

20 Income Tax Expense – This adjustment decreases income taxes by \$256,937 from a
21 negative \$676,904 to negative \$933,842 to reflect the application of statutory state and
22 federal income tax rates to Staff’s test year taxable income.

1 **RATE BASE**

2 **Q. Did the Company prepare a schedule showing the elements of Reconstruction Cost**
3 **New Rate Base?**

4 A. No, the Company did not. The Company requested that its OCRB be treated as its fair
5 value rate base.

6
7 **RATE BASE ADJUSTMENTS**

8 **Q. Is Staff proposing any adjustments to the Company's rate base?**

9 A. Yes.

10

11 **Q. Please summarize Staff's adjustments to the Company's rate base shown on**
12 **Schedules GWB-3, GWB-4, GWB-5, GWB-6, GWB-7, GWB-8A, GWB-8B, and**
13 **GWB-8C.**

14 A. Staff's adjustments to the Company's rate base resulted in a net decrease of \$3,802,198,
15 from \$22,800,578 to \$18,998,380. This decrease was due to removing plant items that
16 were not used and useful, updating values of certain plant items, and recalculating cash
17 working capital.

18

19 **Rate Base Adjustment No. 1 – Zenon Plant at Seasons**

20 **Q. What did the Company propose in Account 380 Treatment and Disposal**
21 **Equipment?**

22 A. The Company proposes a balance of \$17,865,412 for account 380.

23

24 **Q. What is the nature of Staff's adjustment to this plant account?**

25 A. During its review, Staff determined that the Company had purchased mobile equipment
26 from Zenon for temporary use at its Del Oro location and later moved this mobile

1 equipment to its Seasons location. Per the Company's response to Residential Utility
2 Consumer Office ("RUCO") data request 2.11, which requested a list of lift stations,
3 treatment plants, and pressurized mains placed in service January 1, 2006, Phase 1 of the
4 Del Oro WWTP was placed in service on December 22, 2011. Per the Company's
5 response to Staff data request 5.9 included as Attachment 1, the Company stated:

6
7 "The Zenon plant is being relocated to Seasons to allow that facility to be increased in
8 capacity from 70,000 gallons per day to 150,000 gallons per day and to improve nitrate
9 treatment capability of the Seasons facility."

10
11 In effect, the Company confirmed that the temporary plant was taken out of service and
12 relocated to the Seasons location. Further, during its engineering review, Staff confirmed
13 that this plant item is not used and useful and should be removed from Utility Plant in
14 Service.

15
16 **Q. What is Staff's recommendation?**

17 A. Staff recommends the removal of \$1,060,096 for account 380, Treatment and Disposal
18 Equipment, as shown in Schedules GWB-4 and GWB-5. On Schedule GWB-5, Staff also
19 estimates that the accumulated depreciation recorded on this item since being placed in
20 service on September 30, 2006, is \$291,526. The adjustment to decrease accumulated
21 depreciation is shown in Col [B], line 34, of Schedule GWB-4.

22
23 **Rate Base Adjustment No. 2 – Removal of Plant at Las Barrancas #1**

24 **Q. What did the Company propose in Account 360 Collections Sewers – Force and**
25 **associated AIAC?**

26 A. The Company proposes to include a balance of \$983,459 for account 360, Collections
27 Sewers - Force and AIAC.

1 **Q. What is the nature of Staff's adjustment to this plant account?**

2 A. During its review, Staff determined that the costs of a sewer line at Las Barrancas #1 had
3 been capitalized since the prior test year but has never been put into service. In response
4 to data request GB 2.2 (not attached as it is large) which asked for information regarding
5 activity associated with Main Extension Agreements ("MXA's"), the Company's
6 indicated that its AIAC balance includes \$983,459 of plant provided to the Company
7 under an MXA.

8
9 **Q. What is Staff's recommendation?**

10 A. Staff recommends the removal of \$983,459 for account 360, Collections Sewers - Force
11 and AIAC, as shown in Schedules GWB-4 and GWB-5.

12
13 **Rate Base Adjustment No. 3 –Disallowance of Allowance for Funds Used During**
14 **Construction ("AFUDC") Included In Utility Plant in Service ("UPIS")**

15 **Q. Please provide some background.**

16 A. On March 13, 2006 and October 31, 2006, Consent Orders were made between the
17 Arizona Department of Environmental Quality ("ADEQ") and Far West. These Consent
18 Orders ordered the Company to make certain improvements to its wastewater system by
19 certain dates.

20
21 On July 26, 2007, Far West submitted an application in Docket No. WS-03478A-07-0442,
22 for authority to incur indebtedness not to exceed \$25,215,000 and to encumber its real
23 property and utility plant as security for such indebtedness. The Commission approved
24 the Company's request in Decision No. 69950, dated October 30, 2007.

25

1 During the course of making the required improvements, Far West became unable to
2 complete all projects with the funds available from the financing approved in Decision
3 No. 69950. Bills were not paid on time and the Company incurred significant late fees
4 along with legal expenses and debt restructuring costs in ultimately retiring these
5 obligations. Far West proposes to include these late fees and legal costs in the cost of its
6 wastewater improvements.

7
8 **Q. Did Staff determine the nature of the unpaid bills?**

9 A. Yes. In response to Staff data request GB 1.4 (also not attached due to being voluminous),
10 the Company provided detailed cost records for numerous plant additions including four
11 major capital additions: Section 14 Wastewater Treatment Plant (“WWTP”), Del Oro
12 WWTP, the Palm Shadows Force Main, and the Palm Shadows Lift Station. In reviewing
13 the cost records supporting the Company’s additions to UPIS, Staff determined that
14 significant sums had been owed to Zenon Environmental Corporation (“Zenon”), Waste-
15 Tech-Kusters Zima Corporation, JCI Industries, and Essco Wholesale.

16
17 **Q. What was impact of these unpaid bills on the Company’s ability to complete its
18 capital improvements?**

19 A. As is more fully discussed in Docket No. WS-03478A-08-0454 and WS-03478A-08-0608,
20 the failure to pay Zenon resulted in Zenon’s refusal to allow Far West to exercise
21 operational control of the Section 14 and Del Oro WWTP’s until payment arrangements
22 had been made.

1 **Q. Please describe the nature of the unpaid bills with Zenon and their ultimate**
2 **resolution.**

3 A. Based on information in response to Staff data request GB 7.2.1 (not attached as it is
4 voluminous), Staff determined that the unpaid bills with Zenon were in the amounts of
5 \$541,879.50 and \$1,101,811.09 dated September 11, 2008 and September 30, 2008.
6 These invoices remained unpaid until March 31, 2011, when the Company reached a
7 payment agreement with Zenon.ⁱ

8
9 **Q. How long did it take the Company to complete its construction once payment**
10 **arrangements were made with Zenon?**

11 A. Based on information in response to RUCO data request 2.11, Section 14 WWTP was
12 placed in service on August 24, 2011, Palm Shadows Lift Station and Palm Shadows
13 Force Main were placed in service on October 1, 2011, and Del Oro WWTP was placed in
14 service on December 22, 2011.

15
16 **Q. Did Far West record AFUDC during the period when it was attempting to resolve its**
17 **unpaid debts?**

18 A. Yes. Far West recorded AFUDC for its plant items through the respective dates when
19 they were placed in service.

20
21 **Q. Does Staff agree with the inclusion of these costs in UPIS?**

22 A. No and for numerous reasons.

23 First, the Company bears the responsibility of providing service, and this includes proper
24 estimation of construction costs for needed improvements. Far West failed to determine
25 reasonable accurate costs of the needed improvements and to borrow accordingly. In
26 response to Staff data request JA 3.47 (Attachment 3), the Company indicates the net

1 proceeds available for construction to be approximately \$17.7 million. However, in
2 response to RUCO 2.11 which asked the Company to identify and value major
3 improvement wastewater systems implemented since January 1, 2006, the Company
4 provided a schedule indicating completed projects of approximately \$21.6 million at its
5 Del Oro, Palm Shadows and Section 14 locations. This does not include significant
6 amounts spent on other locations such as Marwood, Del Rey and Seasons. Of the \$21.6
7 million of plant improvements per RUCO 2.11, approximately \$1.6 million predated the
8 loan, leaving \$20 million to be funded from the loan proceeds of only \$17.7 million. This
9 means that the Company underestimated the costs by at least 13% despite the existence of
10 significant contingencies in the cost estimates filed with the Company's application in
11 Docket No. WS-03478A-07-0442.

12
13 The deficiency described above was further exacerbated by the Company's decision to use
14 approximately \$1.9 million of loan proceeds for its Water Division, as shown in the
15 Company response to Staff data request JA 3.47. In addition to the funding problem
16 created by this action, the Company violated A.R.S. 40-302.C. which states that the
17 proceeds of loans authorized by the Commission may only be used for the intended
18 purposes.

19
20 Third, Staff notes that the Company is a poorly capitalized entity. In response to DR
21 GTM 1.13 in Docket No. WS-03478A-07-0442, the Company represented that it would
22 make steady steps to increase its equity percentage. An infusion of equity into the
23 Company could have provided much needed cash in order to avoid interest and other
24 penalties.

1 Fourth, in response to Staff data request GB 2.1 (part of which is included at attachment 4)
2 which sought information regarding related parties/entities and the owners of those other
3 parties/entities, the Company indicated ownership interest in numerous ventures such as
4 H&S Developers which includes Hank's Market and Butcher Shop, Foothills Mini Mart,
5 and Foothills Sand & Gravel, the Schechert Trust which owns Foothills Golf Courses and
6 Las Barrancas Golf Courses, Southwest Land, LLC, El Ranch Encantado LLC, and partial
7 ownership of Q-Mountain Water. In response to Staff data request 6.3(included as
8 attachment 5), the Company indicates that Sandra Braden is associated with businesses
9 unrelated to Far West involved in renting property (Texas Tango) and ranching (Braden
10 Ranches). In addition, Sandra Braden holds a broker's license and is involved in land
11 sales as a broker. Based on this information, Staff believes that the owners of Far West
12 are very capable of infusing capital that could have been used to avoid bills from
13 becoming delinquent. This would have resulted in the Company's plant being in service
14 much sooner.

15
16 **Q. Does the Company offer any support?**

17 A. Yes, in response to a Staff data request, the Company cites NARUC accounting rule 19
18 which provides for the inclusion of financing costs directly attributable to plant.

19
20 **Q. Does Staff agree with the Company's justification?**

21 A. Staff recognizes the applicability of this rule under more normal conditions. However,
22 Staff believes that the construction period was excessive and resulted in excessive
23 amounts of AFUDC being included in the UPIS balances.

1 **Q. Please describe Staff's view of a reasonable construction period and its impact on**
2 **AFUDC.**

3 A. Staff believes that an 18 month construction period would have been adequate to complete
4 these major improvements and that AFUDC amounts are excessive. Since the Company
5 obtained Commission approval to borrow over \$25 million dollars on October 30, 2007,
6 and 18 months thereafter would put the plant in service date at April 30, 2009. Staff's
7 view is that the ratepayers should be held harmless from the excessive delays caused by
8 the Company's poor management decisions.

9
10 Coincidentally, the date of April 30, 2009, is 6 months after the Zenon bills first became
11 overdue in October 2008, and this 6 month period closely approximates the time period
12 between the date when the Zenon obligation was resolved (March 31, 2011) and the date
13 when the plant items were placed in service between August 24, 2011 and December 22,
14 2011. Staff believes that this is further evidence that the Company could have had its
15 plant in service by April 30, 2009.

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

18 A. Staff recommends the disallowance of AFUDC recorded after April 30, 2009. In response
19 to Staff's data request 5.1, the Company indicates that it had recorded cumulative AFUDC
20 of \$1,439,423 as of April 30, 2009, and that its UPIS balances reflect total AFUDC of
21 \$2,912,595, for a net reduction to UPIS of \$1,473,172. The total AFUDC consisted of
22 \$1,757,533, \$689,039, \$64,905, and \$401,118 for its Section 14 WWTP, Del Oro WWTP,
23 Palm Shadows Lift Station, and Palm Shadows Force Main, respectively.

24
25 Since the excessive AFUDC amounts were included in UPIS closed during 2011 and
26 subject to depreciation using a half year convention, Staff also recommends a decrease of

1 \$34,426 to Accumulated Depreciation for the depreciation expense recorded on the excess
2 AFUDC amounts, as shown in Schedules GWB-4 and GWB-7.

3
4 **Rate Base Adjustment No. 4 –Disallowance of Late Fees Included In UPIS**

5 **Q. Please provide some background.**

6 A. As discussed above, the construction period for the needed improvements was excessive.
7 In addition to excessive AFUDC, Far West incurred late fees ranging from 12 to 18
8 percent during this protracted construction period when bills went unpaid.

9
10 **Q. What is Far West proposing?**

11 A. Far West proposes to include \$896,462 of capitalized late fees in its UPIS balances, as
12 shown in Company response to Staff data request 7.2 which is included as Attachment 13.

13
14 **Q. Does Staff agree with the Company's proposal?**

15 A. No. Staff believes that the construction period was unnecessarily lengthened by the poor
16 management decisions of the Company and that ratepayers should be held harmless.

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

19 A. Staff recommends the disallowance of \$896,462 of capitalized late fees in the Company's
20 UPIS balances, as shown in Schedules GWB-4 and GWB-8A.

21
22 Since the capitalized late fee amounts were included in UPIS closed during 2011 and
23 subject to depreciation using a half year convention, Staff also recommends a decrease of
24 \$22,789 to Accumulated Depreciation for the depreciation expense recorded on the
25 capitalized late fees, as shown in Schedules GWB-4 and GWB-8A.

1 **Rate Base Adjustment No. 5 – Disallowance of Legal and Other Fees Included In UPIS**

2 **Q. Please provide some background.**

3 A. As discussed above, the construction period for the needed improvements was excessive.
4 In addition to excessive AFUDC and late fees, Far West incurred significant legal and
5 other fees related to the Company's failure to pay its bills on a timely basis. These
6 amounts are not considered to be prudently incurred since they were clearly avoidable.
7

8 **Q. What is Far West proposing?**

9 A. Far West proposes to include \$168,193 of capitalized legal and other expenses in its UPIS
10 balances, as shown in Company response to Staff data request 7.2 which is included as
11 Attachment 14.
12

13 **Q. Does Staff agree with the Company's proposal?**

14 A. No. These fees were caused by the Company's decisions to not pay its bills on a timely
15 basis and the ratepayers should be held harmless.
16

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

18 A. Staff recommends the disallowance of \$168,193 of capitalized legal and other expenses in
19 the Company's UPIS balances, as shown in Schedules GWB-4 and GWB-8B.
20

21 Since the capitalized legal and other expense amounts were included in UPIS closed
22 during 2011 and subject to depreciation using a half year convention, Staff also
23 recommends a decrease of \$4,270 to Accumulated Depreciation for the depreciation
24 expense recorded on the capitalized legal and other expenses, as shown in Schedules
25 GWB-4 and GWB-8B.

1 **Rate Base Adjustment No. 6 –Disallowance of Management Fees Paid to Andy Capestro and**
2 **Included In UPIS**

3 **Q. Please provide some background.**

4 A. As discussed above, the construction period for the needed improvements was excessive.
5 Mostly during the latter part of the construction period, the Company paid \$210,000 to
6 Andy Capestro, the husband of one of the owners, for construction management services.
7 Of the \$210,000, \$201,562 was capitalized by the Company and reflected in its UPIS
8 balances.

9
10 **Q. What is Far West proposing?**

11 A. Far West proposes to include \$201,562 of capitalized construction management fees in its
12 UPIS balances, as shown in Company response to Staff data request 7.1 which is included
13 as Attachment 15.

14
15 **Q. Does Staff agree with the Company's proposal?**

16 A. No. First, these fees were incurred mostly during 2010 and 2011 long after the date when
17 the plant could have been in service if the Company has paid its bills on time. Second,
18 these costs are in addition to project management fees in excess of \$1.4 million already
19 paid to Coriolis, the company that was originally retained for these and other services.

20
21 **Q. What is Staff's recommendation?**

22 A. Staff recommends the disallowance of \$201,562 of capitalized construction management
23 fees in the Company's UPIS balances, as shown in Schedules GWB-4 and GWB-8C.

24
25 Since the capitalized construction management fee amounts were included in UPIS closed
26 during 2011 and subject to depreciation using a half year convention, Staff also

1 recommends a decrease of \$4,989 to Accumulated Depreciation for the depreciation
2 expense recorded on the capitalized construction management fees, as shown in Schedules
3 GWB-4 and GWB-8C.
4

5 **Rate Base Adjustment No. 7 – Working Capital**

6 **Q. Please describe the working capital adjustment to rate base.**

7 A. Working Capital is a collective term that typically includes amounts for prepaid expenses,
8 materials and supplies inventory, and cash working capital. Staff's adjustment only
9 relates to the cash working capital component of Working Capital.
10

11 The purpose of calculating cash working capital is to quantify the amount of cash that a
12 utility needs to operate by analyzing the timing differentials between the period required
13 for revenues to be realized and collected and the periods between the date that an expense
14 is incurred and the date paid. A lead/lag study summarizes the differences between the
15 collection of revenues and the payment of expenses and creates a cash working capital
16 amount which is added to or subtracted from the Company's rate base.
17

18 **Q. Did the Company perform a lead/lag study and a computation of cash working
19 capital in this case?**

20 A. Yes. The Company applies those factors to the test year data, as shown in its application.
21

22 **Q. Does Staff agree with the Company's lead/lag days?**

23 A. With the exception of lead/lag days proposed for Revenues and Other Operating
24 Expenses, Staff agrees with the number of lead/lag days proposed by the Company for its
25 cash working capital computation.

1 **Q. Does Staff have other concerns regarding the Company's proposal for cash working**
2 **capital?**

3 A. Yes. Staff disagrees with the Company's inclusion of Depreciation Expense and the
4 exclusion of Interest Expense from its computation.

5
6 **Revenue Lag Days**

7 **Q. What does the Company propose for its revenue lag days?**

8 A. The Company proposes revenue lag days of 48.4768 days which include a 9 day billing
9 lag.

10

11 **Q. Did Staff request an explanation from the Company for its 9 day billing lag?**

12 A. Yes. Staff issued data request GB 1.7 (included as attachment 6) which sought the reasons
13 that the billing lag could not be shortened. The Company responded,

14

15 "The nine day lag is based on a four-cycle per month billing schedule where a cycle of
16 water meters is read on Monday through Friday of one week and the associated water and
17 sewer billing is done on Friday of the following week. Far West believes that this schedule
18 works well and is appropriate for the customer service and staffing levels currently
19 maintained by Far West

20

21 Current staffing consists of two meter readers and a single billing clerk that manually
22 reviews 3,500 – 4,500 meter reads when they are returned from the field. The reads are
23 checked for reading errors, high and low usage along with mailing courtesy letters to
24 customers that possibly have property issues affecting meter reading. In order to shorten
25 billing lag to five days or less, Far West would need additional personnel including a
26 minimum of a second billing clerk and one additional meter reader. Far West would also
27 need to invest in updated meter reading equipment, and other billing practices would need
28 to be modified, including how the processing of late payment penalties and customer shut
29 off procedures. For these reasons, Far West does not believe that shortening the billing lag
30 is practical at this time.¹

31

¹ Per Company response to Staff data request GB 1.7

1 **Q. Please explain Staff's concerns with the Company's proposed number of lag days for**
2 **its revenue?**

3 A. First, the Company states that there are 4 billing cycles per month and that each cycle
4 requires 9 days (each) to complete. Multiplying 4 billing cycles by 9 days each means that
5 each month would have to be 36 days long.

6
7 Second, Staff disagrees with the Company's statement that extra personnel are needed to
8 shorten the billing lag. The Company indicates that water use readings are collected
9 during a Monday through Friday period. There is no reason given to preclude the
10 Company from making any needed corrections during the first week when readings are
11 collected. Then, the integrity of the data could be finalized by the end of the first week
12 with the bills rendered on Monday of the following week. While Far West contends that
13 there is only one billing clerk, this staffing level is adequate to process one billing cycle at
14 a time, as indicated in the Company's response to Staff's data request.

15
16 Using this practice, the billing lag could be reduced to 5 days. This is based on the
17 difference between the midpoint day of Wednesday of the first week when the meters are
18 read and Monday of the second week when bills are rendered.

19
20 **Q. What is Staff's recommendation for the number of lag days for its revenue?**

21 A. Staff recommends revenue lag days of 45.4768 days to reflect a shortening of a 9 day
22 billing lag to a more reasonable 5 day billing lag. See Schedule GWB-9.

1 **Other Operating Expenses**

2 **Q. What does the Company propose for its expense lag days for Other Operating**
3 **Expenses?**

4 A. The Company proposes expense lag days of 15.5 days for Other Operating Expenses. The
5 basis of this is that Other Operating Expenses are assumed to be paid by the 15th of the
6 month following the receipt of goods and services.

7
8 **Q. Does Staff agree with the use of 15.5 days lag for Other Operating Expenses?**

9 A. No. The Company's proposal reflects the payment lag only, from the end of any given
10 month through the date of payment but does not consider the average service lag of 15
11 days from the midpoint of the month until the end of the month. The service lag is
12 considered in this calculation because it represents the average time period between the
13 date the services are received and the date the bill is received.

14
15 **Q. What is Staff's recommendation for the number of lag days for Other Operating**
16 **Expenses?**

17 A. Staff recommends lag days of 30 days to reflect an average service lag of 15 days and an
18 average payment lag of 15 days, as shown on Schedule GWB-9.

19
20 **Cash Working Capital – Depreciation Expense**

21 **Q. Does Staff agree with the inclusion of Depreciation Expense in the Company's**
22 **computation of cash working capital?**

23 A. No. The Company's calculation erroneously includes Depreciation Expense which is a
24 non-cash expense. Since the purpose of a lead lag study is to measure the timing of cash
25 receipts and disbursements, the inclusion of non-cash expenses is inappropriate.

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

2 A. Staff recommends the exclusion of depreciation expense from the computation of cash
3 working capital. See Schedule GWB-9.

4
5 **Cash Working Capital – Interest Expense**

6 **Q. Does Staff agree with the exclusion of Interest Expense in the Company's**
7 **computation of cash working capital?**

8 A. No. Interest expense is a cash expense supported by the Company's ongoing revenues.
9 Since the Company collects and has use of this cash prior to the interest due date, it is
10 appropriate to include interest expense in the computation of cash working capital.

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

13 A. Staff recommends the inclusion of interest expense in the computation of cash working
14 capital. Staff also recommends the use of 91.25 lag days for interest expense, based on the
15 Company's response to Staff data request 1.6 in which the Company states that interest is
16 paid on the first day of the month following the end of the period. See Schedule GWB-9.

17
18 **Q. What is Staff's recommendation for the overall adjustment to working capital?**

19 A. The above recommendations are compiled and reflected on Schedule GWB-9 which
20 provides the calculations of Staff's recommended cash working capital. Staff
21 recommends a reduction to working capital of \$390,014 from \$1,653,938 to \$1,293,225 as
22 shown on Schedules GWB-4 and GWB-9.

23
24 **OPERATING INCOME ADJUSTMENTS**

25 **Q. Is Staff recommending any adjustments to operating income in this case?**

26 A. Yes. Staff recommends the following adjustments.

1 **Operating Income Adjustment No. 1 – Salaries and Wages Officers and Directors**

2 **Q. What is the Company proposing for a Salaries and Wages – Officers and Directors?**

3 A. The Company proposes \$137,000 of salaries paid to the two owners of the Company.
4 Each owner is paid \$137,000 per year by Far West Water and Sewer Company (both
5 divisions). The proposed amount represents half of total salaries of \$274,000 with a one
6 half allocation to Sewer Division.

7

8 **Q. Does Staff agree with the Company's proposal?**

9 A. No. In response to Staff data request GWB 6.3.1 (included at Attachment 5) which sought
10 information regarding the approximate annual hours spent on Far West Water and Far
11 West Sewer. The Company responded that one owner estimates that she spends 2,075
12 hours per year working on the two companies while the other owner estimated spending
13 250 hours per year. Staff recommends disallowing a proportionate share of executive
14 salaries. As shown on Schedule GWB-13, one owner works approximately 12 percent as
15 many hours as the other, thus Staff calculates a disallowance of approximately 88 percent
16 of one executive salary of \$68,500, or \$60,247.

17

18 **Q. What is Staff's recommendation for Salaries and Wages – Officers and Directors?**

19 A. Staff recommends a reduction of \$60,247 from \$137,000 to \$76,753 for Salaries and
20 Wages – Officers and Directors, as reflected on Schedules GWB-11 and GWB-12.

21

22 **Operating Income Adjustment No. 2 – Bad Debt Expense**

23 **Q. What is the Company proposing for Bad Debt Expense?**

24 A. For the test year, the Company proposes \$33,490 for Bad Debt Expense.

1 **Q. Does Staff agree with the Company's proposed amount?**

2 A. No. In response to Staff data request GWB 5.8 (included as Attachment 9) the Company
3 indicates that its proposed amount of \$33,490 represents two year of charge offs and
4 further indicates that a 3-year average of \$13,040 for its Bad Debt Expense. Staff
5 recommends the use of a 3 year average as it represents a normalized level of expenses to
6 be borne by the ratepayers.

7
8 **Q. What is Staff's recommendation for Bad Debt Expense?**

9 A. Staff recommends a decrease to Bad Debt Expense of \$20,450, from \$33,490 to \$13,040,
10 as shown in Schedules GWB-11 and GWB-13.

11
12 **Operating Income Adjustment No. 3 – Legal Expense**

13 **Q. What is the Company proposing for Legal Expense?**

14 A. For the test year, the Company proposes \$43,865 for Legal Expense.

15
16 **Q. Does Staff agree with the Company's proposed amount?**

17 A. No. In response to some formal and informal Staff data requests, the Company has
18 provided Staff with a report with general descriptions of the services provided. In many
19 instances, the Company included legal expense for items such as resolving its dispute with
20 Spartan Homes and for resolving its overdue bills. Staff has removed those and calculated
21 a normalized legal expense of \$10,890 based on 3 years of activity. Staff removed the
22 activity with Spartan Homes and to resolve its overdue bills because the expenses were
23 necessitated by poor management decisions and should not be borne by the ratepayers.

1 **Q. What is Staff's recommendation for Legal Expense?**

2 A. Staff is recommending a decrease to Legal Expense of \$32,975, from \$43,865 to \$10,890,
3 as shown in Schedules GWB-11 and GWB-14.

4
5 **Operating Income Adjustment No. 4 – Depreciation Expense**

6 **Q. What amount of depreciation expense is the Company proposing?**

7 A. The Company is proposing depreciation expense of \$1,497,193.

8
9 **Q. Does Staff agree with the Company's proposed amount?**

10 A. No. While Staff agrees with the proposed depreciation rates, along with the Company's
11 proposed rate for amortization of CIAC, Staff has disallowed certain plant items and this
12 decreases Staff's recommended Depreciation Expense.

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

15 A. Staff is recommending a decrease to Depreciation Expense of \$205,622, from \$1,497,193
16 to \$1,291,571, as shown in Schedules GWB-11 and GWB-16.

17
18 **Operating Income Adjustment No. 5 – Income Taxes**

19 **Q. What is the Company proposing for test year Income Tax Expense?**

20 A. The Company is proposing a negative \$676,904 for test year Income Tax Expense.

21
22 **Q. How did Staff calculate test year income tax expense?**

23 A. Staff calculated test year income tax expense by applying the statutory state and federal
24 income tax rates to Staff's adjusted test year taxable income, as shown on Schedule
25 GWB-2. Since the Company files a consolidated tax return with another system and the
26 average and marginal tax rates are 34 percent when federal taxable income is over

1 \$335,000, Staff has assigned a 34 percent federal tax rate to the test year income, as
2 compared with the Company's use of a 15 percent tax rate.

3
4 **Q. Did Staff prepare a schedule showing the computation of test year income taxes?**

5 A. Yes. Staff's computation of income taxes is shown in Schedule GWB-2.

6
7 **Q. Did Staff make any adjustments to test year income tax expense?**

8 A. Yes. Staff's adjustment reflects Staff's calculation of the income tax expense based upon
9 Staff's adjusted test year taxable income, as shown in Schedule GWB-2.

10
11 **Q. What is Staff's recommendation?**

12 A. Staff recommends decreasing test year Income Tax Expense by \$256,937, from negative
13 \$676,904 to negative \$933,842, as shown in Schedules GWB-11 and GWB-2. Staff
14 further recommends adoption of its Gross Revenue Conversion Factor ("GRCF") that
15 includes a factor for Income Tax Expense, Property Tax Expense, and Bad Debt Expense,
16 as shown in Schedule GWB-2.

17
18 **SERVICE TO CONTIGUOUS AREAS**

19 **Q. Did the Commission direct Staff to investigate whether FWWS is providing service**
20 **outside of its service territory?**

21 A. Yes. In response to Staff data request GB 2.3 (included as Attachment 8), the Company
22 indicates that it provides service to four contiguous service areas. A copy of the
23 Company's response is attached.

24

1 **UNPAID PROPERTY TAXES**

2 **Q. Is the Company current on paying its property taxes?**

3 A. No. In response to Staff data request JA 3.2 (part of which is shown as Attachment 12, the
4 Company indicates unpaid property taxes of \$371,245 for the years 2008 through 2011.

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

7 A. Staff recommends that the rates approved in this proceeding not be implemented until the
8 Company is current on all of its property tax obligations.

9
10 **UNPAID AMOUNTS DUE UNDER MAIN EXTENSION AGREEMENTS ("MXA'S")**

11 **Q. Is the Company current on paying amounts due under its MXA's?**

12 A. No. In response to Staff data request GB 2.2 (Revised), the Company indicates
13 approximately \$190,134 is due to various parties.

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

16 A. Staff recommends that the rates approved in this proceeding not be implemented until the
17 Company is current on all of its MXA's.

18
19 **UNPAID AMOUNTS DUE TO SPARTAN HOMES**

20 **Q. Is the Company current on paying amounts due to Spartan Homes?**

21 A. No. In response to Staff data request JA 3.48 (included at Attachment 10), the Company
22 indicates that it has not paid the total amounts due to Spartan Homes. Decision No. 72594
23 ordered that \$154,180 was immediately due and payable to Spartan Homes, and further
24 ordered to pay within 90 days. To date, the Company has tendered payment of \$47,682.
25 In response to Staff data request JA 3.48, the Company also states that the "Company is
26 continuing its efforts to secure needed funds to pay the balance."

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

2 A. Staff recommends that the rates approved in this proceeding not be implemented until the
3 Company is in compliance with Decision No. 72594 and has paid all amounts due to
4 Spartan Homes.

5
6 **ADEQ COMPLIANCE ISSUES**

7 **Q. Is the Company in compliance with Arizona Department of Environmental Quality**
8 **("ADEQ") regulations?**

9 A. No. As indicated in the Staff's Engineering Report, ADEQ issued a Consent Judgment
10 against Far West on June 22, 2010. In October 2012, ADEQ issued Compliance Status
11 Reports regarding Far West's Wastewater Treatment Plants.

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

14 A. Staff recommends that any increase in rates and charges approved in this proceeding shall
15 not become effective until the Company files documentation from ADEQ that the Far
16 West's WWTPs are in compliance with ADEQ's Consent Judgment as it may be
17 amended.

18
19 **MONIES DUE FROM RELATED PARTIES**

20 **Q. Is the Company owed significant amounts of money from related parties?**

21 A. Yes. In response to Staff data request GB 2.1.4 (included as Attachment 11), the
22 Company indicates unpaid accounts receivables from related parties of approximately
23 \$402,000 mostly for effluent sold to affiliated golf courses. Past due amounts were also
24 indicated in prior periods for the year ending December 31, 2008 through December 31,
25 2010.

1 **Q. Please explain Staff's concerns with amounts owed from affiliated parties.**

2 A. First, Staff is concerned that providing uncompensated service is inequitable to the other
3 ratepayers who are required to pay for service and who may indirectly bear the cost of the
4 uncompensated service. Second, Staff is aware that the Company has unpaid payables
5 such as its property taxes, the payment of which would be a good use of the funds
6 collected for past due bills from affiliated parties.

7

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

9 A. Staff recommends that the rates approved in this proceeding not be implemented until the
10 Company has collected all monies due from related parties.

11

12 **APPOINTMENT OF AN INTERIM MANAGER**

13 **Q. In Decision No. 71447, did the Commission order that Staff investigate and formulate**
14 **a recommendation whether it is in the public interest to appoint an interim**
15 **manager?**

16 A. Yes. At this time, Staff recommends that no interim manager be appointed. However,
17 Staff requests that this opportunity be reserved for future consideration.

18

19 **Q. Does this conclude your direct testimony?**

20 A. Yes, it does.

ⁱ See Company application in Docket No. WS-03478A-12-0085 in which the Company seeks retroactive approval of this financing.

Far West Water & Sewer, Inc., Sewer Division
Docket No. WS-03478A-12-0307
Test Year Ended December 31, 2011

DIRECT TESTIMONY OF GERALD BECKER

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REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	(A) COMPANY ORIGINAL COST	(B) COMPANY FAIR VALUE	(C) STAFF ORIGINAL COST	(D) STAFF FAIR VALUE
1	Adjusted Rate Base	\$ 22,800,578	\$ 22,800,578	\$ 18,998,380	\$ 18,998,380
2	Adjusted Operating Income (Loss)	\$ (1,187,812)	\$ (1,187,812)	\$ (611,582)	\$ (611,582)
3	Current Rate of Return (L2 / L1)	-5.21%	-5.21%	-3.22%	-3.22%
4	Required Rate of Return	7.41%	7.41%	7.40%	7.40%
5	Required Operating Income (L4 * L1)	\$ 1,689,390	\$ 1,689,390	\$ 1,405,880	\$ 1,405,880
6	Operating Income Deficiency (L5 - L2)	\$ 2,877,202	\$ 2,877,202	\$ 2,017,462	\$ 2,017,462
7	Gross Revenue Conversion Factor	1.3437	1.3437	1.6612	1.6612
8	Required Revenue Increase (L7 * L6)	\$ 3,866,046	\$ 3,866,046	\$ 3,351,423	\$ 3,351,423
9	Adjusted Test Year Revenue	\$ 2,227,982	\$ 2,227,982	\$ 2,227,982	\$ 2,227,982
10	Proposed Annual Revenue (L8 + L9)	\$ 6,094,028	\$ 6,094,028	\$ 5,579,404	\$ 5,579,404
11	Required Increase in Revenue (%)	173.52%	173.52%	150.42%	150.42%
12	Rate of Return on Common Equity (%)	10.00%	10.00%		

References:

Column [A]: Company Schedule A-1
Column (B): Company Schedule A-1
Column (C): Company Schedules A-1, A-2, & D-1
Column (D): Staff Schedules GWB-2, GWB-3, and GWB-10

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)
<u>Calculation of Gross Revenue Conversion Factor:</u>				
1	Revenue	100.0000%		
2	Uncollectible Factor (Line 11)	0.3561%		
3	Revenues (L1 - L2)	99.6439%		
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	39.4467%		
5	Subtotal (L3 - L4)	60.1972%		
6	Revenue Conversion Factor (L1 / L5)	1.661208		
<u>Calculation of Uncollectible Factor:</u>				
7	Unity	100.0000%		
8	Combined Federal and State Tax Rate (Line 17)	38.5989%		
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%		
10	Uncollectible Rate	0.5800%		
11	Uncollectible Factor (L9 * L10)		0.3561%	
<u>Calculation of Effective Tax Rate:</u>				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%		
13	Arizona State Income Tax Rate	6.9680%		
14	Federal Taxable Income (L12 - L13)	93.0320%		
15	Applicable Federal Income Tax Rate (Line 44)	34.0000%		
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%		
17	Combined Federal and State Income Tax Rate (L13 +L16)		38.5989%	
<u>Calculation of Effective Property Tax Factor</u>				
18	Unity	100.0000%		
19	Combined Federal and State Income Tax Rate (L17)	38.5989%		
20	One Minus Combined Income Tax Rate (L18-L19)	61.4011%		
21	Property Tax Factor (GWB-17, L24)	1.3808%		
22	Effective Property Tax Factor (L20*L21)		0.8478%	
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			39.4467%
24	Required Operating Income (Schedule GWB-1, Line 5)	\$ 1,405,880		
25	Adjusted Test Year Operating Income (Loss) (Schedule GWB-10, Line 42)	\$ (611,582)		
26	Required Increase in Operating Income (L24 - L25)		\$ 2,017,462	
27	Income Taxes on Recommended Revenue (Col. (F), L52)	\$ 334,405		
28	Income Taxes on Test Year Revenue (Col. (C), L52)	\$ (933,842)		
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		\$ 1,268,247	
30	Required Revenue Increase (Schedule GWB-1, Line 8)	\$ 3,351,423		
31	Uncollectible Rate (Line 10)	0.5800%		
32	Uncollectible Expense on Recommended Revenue (L30 * L31)	\$ 19,438		
33	Adjusted Test Year Uncollectible Expense	\$ -		
34	Required Increase in Revenue to Provide for Uncollectible Exp.		\$ 19,438	
35	Property Tax with Recommended Revenue (GWB-18, Line 20)	\$ 142,004		
36	Property Tax on Test Year Revenue (GWB-18, Col A, L17)	\$ 95,728		
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		\$ 46,276	
38	Total Required Increase in Revenue (L26 + L29 + L34+ L37)		\$ 3,351,423	

	(A) Test Year	(B)	(C) Staff Recommended
<u>Calculation of Income Tax:</u>			
39	Revenue (Sch GWB-9, Col.(C) L5, GWB-1, Col. (D), L9)	\$ 2,227,982	\$ 5,579,404
40	Operating Expenses Excluding Income Taxes	\$ 3,773,405	\$ 3,839,119
41	Synchronized Interest (L52)	\$ 873,925	\$ 873,925
42	Arizona Taxable Income (L39 - L40 - L41)	\$ (2,419,349)	\$ 866,360
43	Arizona State Income Tax Rate	6.9680%	6.9680%
44	Arizona Income Tax (L42 x L43)	\$ (168,580)	\$ 60,368
45	Federal Taxable Income (L42 - L44)	\$ (2,250,769)	\$ 805,992
46	Federal Tax	\$ (765,261)	\$ 274,037
47	Total Federal Income Tax	\$ (765,261)	\$ 274,037
48	Combined Federal and State Income Tax (L43 + L47)	\$ (933,842)	\$ 334,405

50 Effective Tax Rate

<u>Calculation of Interest Synchronization:</u>			
51	Rate Base (Schedule GWB-3, Col. (C), Line 18)		N/A
52	Weighted Average Cost of Debt		\$ 18,998,380
53	Synchronized Interest (L50 X L51)		4.6000%
			\$ 873,925

RATE BASE - ORIGINAL COST

LINE NO.	(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	(C) STAFF AS ADJUSTED
1	Plant in Service	\$ 37,751,132	\$ 32,968,188
2	Less: Accumulated Depreciation	4,945,733	4,587,733
3	Net Plant in Service	<u>\$ 32,805,399</u>	<u>\$ 28,380,455</u>
<u>LESS:</u>			
4	Contributions in Aid of Construction (CIAC)	\$ 1,726,854	\$ 1,726,854
5	Less: Accumulated Amortization	909,423	909,423
6	Net CIAC	<u>817,431</u>	<u>817,431</u>
7	Advances in Aid of Construction (AIAC)	10,814,970	9,831,511
8	Imputed Reg AIAC	-	-
9	Imputed Reg CIAC	-	-
10	Accumulated Deferred Income Tax Credits	-	-
	Customer Meter Deposits	26,359	26,359
<u>ADD:</u>			
11	Accumulated Deferred Income Tax Debits	-	-
12	Cash Working Capital	1,653,938	1,293,225
13	Prepayments	-	-
14	Supplies Inventory	-	-
15	Projected Capital Expenditures	-	-
16	Deferred Debits	-	-
17	Purchase Wastewater Treatment Charges	-	-
18	Original Cost Rate Base	<u>\$ 22,800,578</u>	<u>\$ 18,998,380</u>

References:

Column (A), Company Schedule B-2
Column (B): Schedule GWB-4
Column (C): Column (A) + Column (B)

SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	(A) COMPANY AS FILED	(B) Zenon Temp Plant ADJ #1 GWB-5	(C) Las Barrancas #1 ADJ #2 GWB-6	(D) AFUDC Disallowance ADJ #3 GWB-7	(E) Interest Disallowance ADJ #4 GWB-8A	(F) Legal/Other Disallowance ADJ #5 GWB-8B	(G) Capestro Mgt Fees ADJ #6 GWB-8C	(H) Working Capital ADJ #7 GWB-9	(I) ADJ #5	(J) ADJ #6	(K) ADJ #7	(L) ADJ #8	(M) STAFF ADJUSTED
PLANT IN SERVICE															
1	351	Organization Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -					\$ -
2	352	Franchise Cost	3,076												3,076
3	353	Land and Land Rights	1,413,437												1,413,437
4	354	Structures & Improvements	2,477,482			(157,878)	(114,449)	(21,911)	(20,846)						2,162,399
5	355	Power Generating Equipment	68,993			(3,654)	(775)	(14)	(2,282)						62,268
6	360	Collection Sewers - Force	3,504,328		(983,459)	(223,711)	(5,243)	(321)	(24,848)						2,266,746
7	361	Collection Sewers - Gravity	8,727,577												8,727,577
8	362	Special Collecting Structures	-												-
9	363	Services to Customers	173,621												173,621
10	364	Flow Measuring Devices	32,468												32,468
11	365	Flow Measuring Installations	16,683												16,683
12	366	Reuse Services	-												-
13	367	Reuse Meters and Meter Installations	-			(108)	(75)	(14)	(16)						2,097
14	370	Receiving Wells	74,227			(6,555)	(4,571)	(821)	(985)						61,295
15	371	Pumping Equipment	1,395,638			(56,002)	(34,962)	(6,178)	(12,663)						1,285,833
16	374	Reuse Distribution Reservoirs	-												-
17	375	Reuse Transmission and Dist. Sys.	-												-
18	380	Treatment and Disposal Equipment	17,685,412	(1,060,096)		(950,159)	(682,892)	(129,026)	(129,506)						14,733,833
19	381	Plant Sewers	623,671			(51,514)	(36,834)	(6,949)	(7,074)						521,201
20	382	Outfall Sewer Lines	1,805			(159)	(111)	(20)	(24)						1,490
21	389	Other Plant and Misc. Equipment	394,141			(22,891)	(15,958)	(2,867)	(3,439)						348,997
22	390	Office Furniture & Equipment	254,572				(285)		(55)						254,233
23	390	Computers & Software	11,356			(398)		(53)							10,906
24	391	Transportation Equipment	271,810												271,810
25	392	Stores Equipment	-												-
26	393	Tools, Shop & Garage Equipment	27,069												27,069
27	394	Laboratory Equipment	17,418												17,418
28	395	Power Operated Equipment	181,667												181,667
29	396	Communications Equipment	17,191			(154)	(108)	(19)	(23)						16,886
30	397	Miscellaneous Equipment	136,351												136,351
31	398	Other Tangible Plant	238,828												238,828
32		Total Plant in Service	37,751,132	(1,060,096)	(983,459)	(1,473,172)	(896,462)	(168,193)	(201,562)						32,966,188
33															
34		Accumulated Depreciation	4,945,733	(291,526)		(34,426)	(22,789)	(4,270)	(4,989)						4,587,733
35		Net Plant in Service	\$ 32,805,399	\$ (768,570)	\$ (983,459)	\$ (1,438,746)	\$ (873,673)	\$ (163,923)	\$ (196,573)						\$ 28,360,458
36															
37		LESS:													
38		Contributions in Aid of Construction (CIAC)	1,726,854												1,726,854
39		Less: Accumulated Amortization	909,423												909,423
40		Net CIAC (L63 - L64)	817,431												817,431
41		Advances in Aid of Construction (AIAC)	10,814,970		(983,459)										9,831,511
42		Imputed Reg Advances	-												-
43		Imputed Reg CIAC	-												-
44		Accumulated Deferred Income Tax Credits	-												-
45		Customer Meter Deposits	26,359												26,359
46		ADD:													
47		Accumulated Deferred Income Tax Debits	-												-
48		Working Capital Allowance	1,653,938						(360,713)						1,293,225
49		Pumping Power	-												-
50		Purchase Wastewater Treatment Charges	-												-
51		Material and Supplies Inventory	-												-
52		Prepayments	-												-
53		Projected Capital Expenditures	-												-
54		Deferred Debits	-												-
55		Original Cost Rate Base	\$ 22,800,578	\$ (768,570)	\$ -	\$ (1,438,746)	\$ (873,673)	\$ (163,923)	\$ (196,573)	\$ (360,713)	\$ -	\$ -	\$ -	\$ -	\$ 18,968,360

Far West Water & Sewer, Inc., Sewer Division
 Docket No. WS-03478A-12-0307
 Test Year Ended December 31, 2011

Schedule GWB-5

RATE BASE ADJUSTMENT #1 ZENON TEMPORARY PLANT

LINE NO.	ACCT NO.	Description	[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	[C] STAFF AS ADJUSTED
1	380		1,060,096	(1,060,096)	-

References:
 Column [A] : Amount reflected in Acct. 380, Treatment and Disposal Equipment
 Column [B] , Col [C] less Col [A]
 Column [C] , Per testimony GWB

Far West Water & Sewer, Inc., Sewer Division
 Docket No. WS-03478A-12-0307
 Test Year Ended December 31, 2011

Schedule GWB-6

RATE BASE ADJUSTMENT #2 LAS BARRANCAS #1

LINE NO.	ACCT NO.	Description	[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	[C] STAFF AS ADJUSTED
1	380		983,459	(983,459)	-
2	AIAC		983,459	(983,459)	-

References:

Column [A] : line 1, amount reflected in Acct. 380, Treatment and Disposal Equipment
 Column [A] : line 2, amount reflected in total AIAC balance
 Column [B] , Col [C] less Col [A]
 Column [C] , Per testimony GWB

RATE BASE ADJUSTMENT #3 AFUDC DISALLOWANCE

Account	Section 14		AFUDC by NARUC		Del Oro	PS LS		PS FM	Totals		AFUDC by NARUC			
	UPIS		UPIS			UPIS			UPIS			UPIS		
354	\$	1,425,696	\$	100,716	\$	737,402	\$	57,161			\$	2,163,098		
355												\$	68,993	
360	\$	23,849	\$	1,685	\$	156	\$	12	\$	2,254,102	\$	2,639,310		
370	\$	92,784	\$	6,555								\$	92,784	
371	\$	505,333	\$	35,699	\$	132,358	\$	10,260	\$	827,308	\$	56,002		
380	\$	9,660,274	\$	682,437	\$	3,453,701	\$	267,721				\$	13,113,974	
381	\$	541,509	\$	38,254	\$	171,054	\$	13,260				\$	712,563	
382	\$	2,256	\$	159								\$	2,256	
389	\$	323,894	\$	22,881								\$	323,894	
390	\$	4,253	\$	300	\$	1,252	\$	97				\$	5,506	
367	\$	1,532	\$	108								\$	1,532	
396	\$	2,185	\$	154								\$	2,185	
	\$	12,583,566	\$	888,949	\$	4,495,923	\$	348,512	\$	619,813	\$	32,829	\$	19,953,404
AFUDC Total	\$	1,757,533			\$	689,039			\$	401,118		\$	2,912,595	
AFUDC APR 2009 Excess												\$	1,439,423	
AFUDC Disallowance	\$	888,949			\$	348,512			\$	32,829		\$	1,473,172	

UPIS per Co Response to Staff DR 1.4
 except PS FM in NARUC 360

RATE BASE ADJUSTMENT #4 LATE FEES DISALLOWANCE

Account	Section 14		Late Fees by NARUC		Del Oro	Late Fees by NARUC		PS LS	Late Fees by NARUC		PS FM	Late Fees by NARUC	Total	Late Fees NARUC		
	UPIS		UPIS			UPIS			UPIS							
354	\$	1,425,696	\$	70,241	\$	737,402	\$	44,208	\$	68,993	\$	775	\$	2,163,098	\$	114,449
355	\$	23,849	\$	1,175	\$	156	\$	9	\$	361,203	\$	4,058	\$	68,993	\$	775
360	\$	92,784	\$	4,571	\$	132,358	\$	7,935	\$	189,617	\$	2,130	\$	2,639,310	\$	5,243
370	\$	505,333	\$	24,897	\$	3,453,701	\$	207,052	\$		\$		\$	92,784	\$	4,571
371	\$	9,660,274	\$	475,940	\$	171,054	\$	10,255	\$		\$		\$	827,308	\$	34,962
380	\$	541,509	\$	26,679	\$	1,252	\$	75	\$		\$		\$	13,113,974	\$	682,992
381	\$	2,256	\$	111	\$		\$		\$		\$		\$	712,563	\$	36,934
382	\$	323,894	\$	15,958	\$		\$		\$		\$		\$	2,256	\$	111
389	\$	4,253	\$	210	\$		\$		\$		\$		\$	323,894	\$	15,958
390	\$	1,532	\$	75	\$		\$		\$		\$		\$	5,506	\$	285
367	\$	2,185	\$	108	\$		\$		\$		\$		\$	1,532	\$	75
396	\$	12,583,566	\$	619,964	\$	4,495,923	\$	269,534	\$	619,813	\$	6,964	\$	2,254,102	\$	896,462
Late Fees, Per Co.	\$	619,964			\$	269,534			\$	6,964			\$	896,462		
Disallowance	\$	619,964			\$	269,534			\$	6,964			\$	896,462		

UPIS per Co Response to Staff DR 1.4
 except PS FM in NARUC 360

RATE BASE ADJUSTMENT #5 LEGAL & OTHER FEES DISALLOWANCE

Account	Section 14		Legal/Other by NARUC		Del Oro		Legal/Other by NARUC		PS LS		Legal/Other by NARUC		PS FM		Legal/Other by NARUC		Totals		Legal/Other NARUC			
	UPIS		UPIS		UPIS		UPIS		UPIS		UPIS		UPIS		UPIS		UPIS		UPIS			
354	\$	1,425,696	\$	12,620	\$	737,402	\$	9,291	\$	68,993	\$	14	\$	2,254,102	\$	37	\$	2,163,098	\$	21,911		
355	\$	23,849	\$	211	\$	156	\$	2	\$	361,203	\$	71	\$		\$		\$	68,993	\$	14		
360	\$	92,784	\$	821	\$	132,358	\$	1,668	\$	189,617	\$	37	\$		\$		\$	92,784	\$	821		
370	\$	505,333	\$	4,473	\$	3,453,701	\$	43,515	\$		\$		\$		\$		\$	827,308	\$	6,178		
371	\$	9,660,274	\$	85,511	\$	171,054	\$	2,155	\$		\$		\$		\$		\$	13,113,974	\$	129,026		
380	\$	541,509	\$	4,793	\$		\$		\$		\$		\$		\$		\$	712,563	\$	6,949		
381	\$	2,256	\$	20	\$		\$		\$		\$		\$		\$		\$	2,256	\$	20		
382	\$	323,894	\$	2,867	\$		\$		\$		\$		\$		\$		\$	323,894	\$	2,867		
389	\$	4,253	\$	38	\$	1,252	\$	16	\$		\$		\$		\$		\$	5,506	\$	53		
390	\$	1,532	\$	14	\$		\$		\$		\$		\$		\$		\$	1,532	\$	14		
367	\$	2,185	\$	19	\$		\$		\$		\$		\$		\$		\$	2,185	\$	19		
396	\$	12,583,566	\$	111,387	\$	4,495,923	\$	56,647	\$	619,813	\$	122	\$	2,254,102	\$		\$	19,953,404	\$	168,193		
Late Fees, Per Co	\$	111,387			\$	56,647			\$	122			\$	37	\$		\$	-	\$	-	\$	168,193

UPIS per Co Response to Staff DR 1.4
 except PS FM in NARUC 360

RATE BASE ADJUSTMENT #6 CAPESTRO MANAGEMENT FEES DISALLOWANCE

Account	Section 14		Mgt. Fees by NARUC		Del Oro		Mgt. Fees by NARUC		PS LS		Mgt. Fees by NARUC		PS FM		Mgt. Fees by NARUC		Totals		Mgt. Fees NARUC			
	UPIS		UPIS		UPIS		UPIS		UPIS		UPIS		UPIS		UPIS		UPIS					
354	\$	1,425,696	\$	15,138	\$	737,402	\$	5,707														
355																						
360	\$	23,849	\$	253	\$	156	\$	1														
370	\$	92,784	\$	985	\$	132,358	\$	1,024														
371	\$	505,333	\$	5,366	\$	3,453,701	\$	26,731														
380	\$	9,660,274	\$	102,575	\$	171,054	\$	1,324														
381	\$	541,509	\$	5,750	\$	1,252	\$	10														
382	\$	2,256	\$	24	\$		\$															
389	\$	323,894	\$	3,439	\$		\$															
390	\$	4,253	\$	45	\$		\$															
367	\$	1,532	\$	16	\$		\$															
396	\$	2,185	\$	23	\$		\$															
	\$	12,583,566	\$	133,615	\$	4,495,923	\$	34,798	\$	619,813	\$	20,505	\$	2,254,102	\$	19,953,404	\$	201,562	\$	201,562	\$	201,562
Mgt. Fees, Per Co.	\$	133,615			\$	34,798			\$	20,505			\$	12,644	\$	-	\$	201,562			\$	201,562

UPIS per Co Response to Staff DR 1.4
 except PS FM in NARUC 360

RATE BASE ADJUSTMENT #7 WORKING CAPITAL

Line No.		Test Year Adjusted Amount	Revenue Lag Days	Expense Lag Days	Net Lag Days	Lead / Lag Factor	Cash Working Capital Required
1	OPERATING EXPENSES						
2	Salaries and Wages	\$ 878,824	45.5768	12.0000	33.5768	0.0920	\$ 80,844
3	Group Insurance	27,421	45.5768	(2.3334)	47.9102	0.1313	\$ 3,599
4	Sludge Removal	55,247	45.5768	239.8508	(194.2740)	(0.5323)	\$ (29,406)
5	Purchased Power	342,364	45.5768	59.8970	(14.3202)	(0.0392)	\$ (13,432)
6	Chemicals	219,910	45.5768	63.9648	(18.3880)	(0.0504)	\$ (11,079)
7	Repairs and Maintenance	181,981	45.5768	66.6282	(21.0514)	(0.0577)	\$ (10,496)
8	Contractual Services	225,961	45.5768	67.2163	(21.6395)	(0.0593)	\$ (13,396)
9	Rent - Buildings	20,669	45.5768	(18.5294)	64.1062	0.1756	\$ 3,630
10	Rent - Equipment	45,758	45.5768	25.4922	20.0846	0.0550	\$ 2,518
11	Transportation Expense	129,723	45.5768	(11.7634)	57.3402	0.1571	\$ 20,379
12	Insurance	62,877	45.5768	20.6635	24.9133	0.0683	\$ 4,292
13	Depreciation & Amortization	-	45.5768	-	45.5768	0.1249	\$ -
14	Other Operating Expenses	63,457	45.5768	30.0000	15.5768	0.0427	\$ 2,708
15	TAXES		45.5768				
16	Taxes Other than Income	76,451	45.5768	15.9481	29.6287	0.0812	\$ 6,206
17	Property Taxes	142,004	45.5768	729.6032	(684.0264)	(1.8740)	\$ (266,122)
18	Income Tax	334,405	45.5768		45.5768	0.1249	\$ 41,756
19	Interest	873,925	45.5768	91.2500	(45.6732)	(0.1251)	\$ (109,356)
20							
21							
22							
23	WORKING CASH REQUIREMENT						<u>\$ (287,354)</u>
24							
25							
26							
27							
28							
29			Per FWWS		Per Staff		
30							
31	Cash Working Capital, per Above	\$ 73,359			\$ (287,354)		\$ (360,713)
32	Material and Supplies Inventories	18,440			18,440		-
33	Working Funds and Special Deposits	1,548,498			1,548,498		0
34	Prepayments	13,641			13,641		-
35	Total Working Capital Allowance, Per Company	\$ 1,653,938			\$ 1,293,225		\$ (360,713)

OPERATING INCOME STATEMENT - TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF RECOMMENDED CHANGES	[E] STAFF RECOMMENDED
		\$ -	\$ -	\$ -	\$ 3,351,423	\$ 3,351,423
1	Flat Rate Revenue	2,053,159	-	2,053,159	-	2,053,159
2	Other Sewer Revenues	43,064	-	43,064	-	-
3	Metered Reuse Revenue	131,759	-	131,759	-	131,759
4	Total Operating Revenues	\$ 2,227,982	\$ -	\$ 2,227,982	\$ 3,351,423	\$ 5,579,404
5	Salaries and Wages	\$ 802,071	\$ -	\$ 802,071	\$ -	\$ 802,071
6	Salaries and Wages - Officers and Directors	137,000	(60,247)	76,753	-	76,753
7	Employee Pension and Benefits	27,421	-	27,421	-	27,421
8	Purchased Sewer Treatment	-	-	-	-	-
9	Sludge Removal Expense	55,247	-	55,247	-	55,247
10	Purchased Power	342,364	-	342,364	-	342,364
11	Chemicals	219,910	-	219,910	-	219,910
12	Repairs and Maintenance	181,981	-	181,981	-	181,981
13	Contractual Services - Engineering	-	-	-	-	-
14	Contractual Services - Accounting	7,230	-	7,230	-	7,230
15	Contractual Services - Legal	43,865	(32,975)	10,890	-	10,890
16	Contractual Services - Management Fees	-	-	-	-	-
17	Contractual Services - Testing	147,025	-	147,025	-	147,025
18	Contractual Services - Other	60,716	-	60,716	-	60,716
19	Rent - Buildings	20,669	-	20,669	-	20,669
20	Rent - Equipment	45,758	-	45,758	-	45,758
21	Transportation Expense	129,723	-	129,723	-	129,723
22	Insurance - Vehicle	12,610	-	12,610	-	12,610
23	Insurance - General Liability	33,142	-	33,142	-	33,142
24	Insurance - Workman's Compensation	17,125	-	17,125	-	17,125
25	Insurance - Other	-	-	-	-	-
26	Advertising Expense	476	-	476	-	476
27	Regulatory Commission Expense - Rate Cas	75,000	-	75,000	-	75,000
28	Regulatory Expense - Other	-	-	-	-	-
29	Bad Debt Expense	33,490	(20,450)	13,040	19,438	32,478
30	Miscellaneous Expense	30,503	-	30,503	-	30,503
31	Depreciation Expense	1,497,193	(205,622)	1,291,571	-	1,291,571
32	Taxes Other Than Income	76,451	-	76,451	-	76,451
33	Property Taxes	95,728	-	95,728	46,276	142,004
34	Income Tax	\$ (676,904)	\$ (256,937)	\$ (933,842)	\$ 1,268,247	\$ 334,405
35	Total Operating Expenses	3,415,794	(576,230)	2,839,563	1,333,961	4,173,524
36	Operating Income (Loss)	\$ (1,187,812)	\$ 576,230	\$ (611,582)	\$ 2,017,462	\$ 1,405,880

References:

- Column (A): Company Schedule C-1
- Column (B): Schedule GWB 11
- Column (C): Column (A) + Column (B)
- Column (D): Schedules GWB 2, Lines 29, 34 and 37
- Column (E): Column (C) + Column (D)

SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	(A) COMPANY AS FILED	(B) Executive Comp ADJ #1 GWB-12	(C) Bad Debts Exp ADJ #2 GWB-13	(D) Legal Exp ADJ #3 GWB-14	(E) Deprec. Exp ADJ #4 GWB-16	(F) Income Taxes ADJ #5 GWB-17	(H) STAFF ADJUSTED
1	Flat Rate Revenue	2,053,159	-	-	-	-	-	2,053,159
2	Other Sewer Revenues	43,064	-	-	-	-	-	43,064
3	Metered Reuse Revenue	131,759	-	-	-	-	-	131,759
4	Total Operating Revenues	\$ 2,227,982	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,227,982
Operating Expenses								
5	Salaries and Wages	\$ 802,071	-	-	-	-	-	802,071
6	Salaries and Wages - Officers and Director:	137,000	(60,247)	-	-	-	-	76,753
7	Employee Pension and Benefits	27,421	-	-	-	-	-	27,421
8	Purchased Sewer Treatment	-	-	-	-	-	-	-
9	Sludge Removal Expense	55,247	-	-	-	-	-	55,247
10	Purchased Power	342,364	-	-	-	-	-	342,364
11	Chemicals	219,910	-	-	-	-	-	219,910
12	Repairs and Maintenance	181,981	-	-	-	-	-	181,981
13	Contractual Services - Engineering	-	-	-	-	-	-	-
14	Contractual Services - Accounting	7,230	-	-	-	-	-	7,230
15	Contractual Services - Legal	43,865	-	-	(32,975)	-	-	10,890
16	Contractual Services - Management Fees	-	-	-	-	-	-	-
17	Contractual Services - Testing	147,025	-	-	-	-	-	147,025
18	Contractual Services - Other	60,716	-	-	-	-	-	60,716
19	Rent - Buildings	20,669	-	-	-	-	-	20,669
20	Rent - Equipment	45,758	-	-	-	-	-	45,758
21	Transportation Expense	129,723	-	-	-	-	-	129,723
22	Insurance - Vehicle	12,610	-	-	-	-	-	12,610
23	Insurance - General Liability	33,142	-	-	-	-	-	33,142
24	Insurance - Workman's Compensation	17,125	-	-	-	-	-	17,125
25	Insurance - Other	-	-	-	-	-	-	-
26	Advertising Expense	476	-	-	-	-	-	476
27	Regulatory Commission Expense - Rate C	75,000	-	-	-	-	-	75,000
28	Regulatory Expense - Other	-	-	-	-	-	-	-
29	Bad Debt Expense	33,490	-	(20,450)	-	-	-	13,040
30	Miscellaneous Expense	30,503	-	-	-	-	-	30,503
31	Depreciation Expense	1,497,193	-	-	-	(205,622)	-	1,291,571
32	Taxes Other Than Income	76,451	-	-	-	-	-	76,451
33	Property Taxes	95,728	-	-	-	-	-	95,728
34	Income Tax	(676,904)	-	-	-	-	(256,937)	(933,842)
35	Total Operating Expenses	\$ 3,415,794	\$ (60,247)	\$ (20,450)	\$ (32,975)	\$ (205,622)	\$ (256,937)	\$ 2,839,563
36	Operating Income	\$ (1,187,812)	\$ 60,247	\$ 20,450	\$ 32,975	\$ 205,622	\$ 256,937	\$ (611,582)

OPERATING INCOME ADJUSTMENT #1 - SALARIES AND WAGES - OFFICERS AND DIRECTORS

<u>LINE</u> <u>NO.</u>			
1	Payroll Sandy Braden	\$	68,500
2	Sandy's Hours		250
3	Paula's Hours		2075
4	Allowable portion		<u>12.05%</u>
5	Disallowable portion		87.95%
6	Disallowance	\$	60,247

Line 1: Amount of payroll proposed for Sandy Braden
Line 2 & 3: Respective hours worked by each per Staff DR 6.3
Line 4: Line 2 / line 3
Line 5: 1 minus line 4
Line 6: Line 1 times line 5
Lines 1 - 6: See also testimony GWB

OPERATING INCOME ADJUSTMENT #2 - BAD DEBT EXPENSE

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED*</u>
1		\$ 33,490	\$ (20,450)	\$ 13,040

References:

Column (A), Company Workpapers

Column (B): Testimony GWB

Column (C): Column (A) + Column (B), Per Co Response
to Staff DR 5.8

OPERATING INCOME ADJUSTMENT #3 - LEGAL EXPENSE

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED*</u>
1		\$ 43,865	\$ (32,975)	\$ 10,890

References:

Column (A), Company Workpapers

Column (B): Testimony GWB

Column (C): Column (A) + Column (B)

OPERATING INCOME ADJUSTMENT #4 - DEPRECIATION EXPENSE

LINE NO.	ACCT. NO.	DESCRIPTION	[A] PLANT BALANCE	[B] DEPRECIATION RATE	[C] DEPRECIATION EXPENSE
1		<u>PLANT IN SERVICE:</u>			
2	351	Organization Cost	-	0.00%	-
3	352	Franchise Cost	3,076	0.00%	-
4	353	Land and Land Rights	1,413,437	0.00%	-
5	354	Structures & Improvements	2,162,399	3.33%	72,008
6	355	Power Generating Equipment	62,268	5.00%	3,113
7	360	Collection Sewers - Force	2,266,746	2.00%	45,335
8	361	Collection Sewers - Gravity	8,727,577	2.00%	174,552
9	362	Special Collecting Structures	-	2.00%	-
10	363	Sevices to Customers	173,621	2.00%	3,472
11	364	Flow Measuring Devices	32,468	10.00%	3,247
12	365	Flow Measuring Installations	16,683	10.00%	1,668
13	366	Reuse Services	-	2.00%	-
14	367	Reuse Meters and Meter Installations	2,097	8.33%	175
15	370	Receiving Wells	61,295	3.33%	2,041
16	371	Pumping Equipment	1,285,833	12.50%	160,729
17	374	Reuse Distribution Reservoirs	-	2.50%	-
18	375	Reuse Transmission and Dist. Sys.	-	2.50%	-
19	380	Treatment and Disposal Equipment	14,733,833	5.00%	736,692
20	381	Plant Sewers	521,201	5.00%	26,060
21	382	Outfall Sewer Lines	1,490	3.33%	50
22	389	Other Plant and Misc. Equipment	348,997	6.67%	23,278
23	390	Office Furniture & Equipment	254,233	6.67%	16,957
24	390.1	Computers & Software	10,906	20.00%	2,181
25	391	Transportation Equipment	271,810	20.00%	54,362
26	392	Stores Equipment	-	4.00%	-
27	393	Tools, Shop & Garage Equipment	27,069	5.00%	1,353
28	394	Laboratory Equipment	17,418	10.00%	1,742
29	395	Power Operated Equipment	181,667	5.00%	9,083
30	396	Communications Equipment	16,886	10.00%	1,689
31	397	Miscellaneous Equipment	136,351	10.00%	13,635
32	398	Other Tangible Plant	238,828	10.00%	23,883
33			32,968,188		1,377,305
34		Less:			
35		Amortization of CIAC at Company's Rate	\$ 1,726,854	4.9648%	\$ 85,734
36		Staff Recommended Depreciation Expense			\$ 1,291,571
37		Company Proposed Depreciation Expense			\$ 1,497,193
38		Staff Adjustment			\$ (205,622)

References:

Col [A]	Schedule GWB-4
Col [B]	Proposed Rates per Staff Engineering Report for Non Allocated Plant
Col [C]	Col [A] times Col [B]

OPERATING INCOME ADJUSTMENT #5 - INCOME TAXES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY PROPOSED</u>	<u>[B] STAFF ADJUSTMENTS</u>	<u>[C] STAFF RECOMMENDED</u>
1	Income Taxes	<u>\$ (676,904)</u>	<u>\$ (256,937)</u>	<u>\$ (933,842)</u>

References:

Column (A), Company Schedule C-2

Column (B): Testimony GWB

Column (C): Column (A) + Column (B),
see also Sch. GWB-2, line 48

OPERATING INCOME ADJUSTMENT #6 - PROPERTY TAX EXPENSE GRCF COMPONENT

LINE NO.	DESCRIPTION	[A]	[B]
		STAFF AS ADJUSTED	STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues - 2007	\$ 2,227,982	\$ 2,227,982
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	4,455,963	4,455,963
4	Staff Adjusted Test Year Revenues - 2007	2,227,982	
5	Staff Recommended Revenue		5,579,404
6	Subtotal (Line 4 + Line 5)	6,683,945	10,035,368
7	Number of Years	3	3
8	Three Year Average (Line 5 / Line 6)	2,227,982	3,345,123
9	Department of Revenue Multiplier	2	2
10	Revenue Base Value (Line 7 * Line 8)	4,455,963	6,690,245
11	Plus: 10% of CWIP	243,735	243,735
12	Less: Net Book Value of Licensed Vehicles	77,783	77,783
13	Full Cash Value (Line 9 + Line 10 - Line 11)	4,621,915	6,856,197
14	Assessment Ratio	20.0%	20.0%
15	Assessment Value (Line 12 * Line 13)	924,383	1,371,239
16	Composite Property Tax Rate	10.3559%	10.3559%
17	Staff Test Year Adjusted Property Tax Expense (Line 14 * Line 15)	\$ 95,728	
18	Company Proposed Property Tax	\$ 95,728	
19	Staff Test Year Adjustment (Line 16 - Line 17)	\$ 0	
20	Property Tax on Staff Recommended Revenue (Line 14 * Line 15)		\$ 142,004
21	Staff Test Year Adjusted Property Tax Expense (Line 16)		\$ 95,728
22	Increase in Property Tax Due to Increase in Revenue Requirement		\$ 46,276
23	Increase in Property Tax Due to Increase in Revenue Requirement (Line 21)		\$ 46,276
24	Increase in Revenue Requirement		\$ 3,351,423
25	Increase in Property Tax Per Dollar Increase in Revenue (Line 22 / Line 23)		1.38079%

REFERENCES:

Line 15: Composite Tax Rate, per Company
Line 18: Company Schedule C-1, Line 23

ATTACHMENT

1

Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
Response to Staff's Fifth Set of Data Requests

Response provided by: Ray L. Jones
Title: Consultant
Address: 25213 N. 49th Drive
Phoenix, AZ 85083
Data Request Number: GWB 5.9

Q. Plant from Zenon – Please describe the plant that had been used temporarily at the DelOro site and later moved to the Seasons location. Please describe the operational necessity of this plant while at Del Oro and how these operational problems have been resolved permanently. Please provide a copy of the agreement(s) governing the temporary as well as permanent use of the equipment. Please provide a schedule of all payments made to Zenon for this equipment including payment dates and accounts charges, segregate payments as they would apply to each location, and provide a brief description of the payments. Also, please describe the operational problems that this equipment has resolved at Seasons.

A. The Zenon plant is a mobile package membrane bioreactor wastewater treatment facility. The facility consists of an epoxy-painted carbon steel membrane tank, Zee Weed Membrane Cassettes, an air-conditioned and heated process equipment building housing required equipment including blowers, pumps, instrumentation, back pulse tanks, cleaning tanks, cleaning feed systems and air compressor.

During winter months flows at the Del Oro WWTP occasionally exceed the 150,000 gpd capacity of the facility. The high flow rates caused operational issues and resulted in complaints to ADEQ. In early 2006 ADEQ inspections were conducted and meeting were held between Far West and ADEQ. The Zenon facility was installed to reduce loading on the existing facility until such time as a planned permanent expansion of the Del Oro facility occurred. Phase I of the permanent expansion of the Del Oro facility is now in service, eliminating the need for the Zenon plant.

The Zenon plant is being relocated to Seasons to allow that facility to be increased in capacity from 70,000 gallons per day to 150,000 gallons per day and to improve nitrate treatment capability of the Seasons facility.

Requested Agreements and Schedule attached:
[GWB 5.9 Zenon MBR Temporary Plant Rental Agreements.pdf](#)
[GWB 5.9 Zenon MBR Temporary Plant Purchase PO Signed.pdf](#)
[GWB 5.9 Zenon MBR Plant Payment Schedule.pdf](#)

ATTACHMENT

2

Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
Response to RUCO's Second Set of Data Requests

Response provided by: Ray Jones

Title: Consultant

Address: 25213 N. 49th Drive
Phoenix, Arizona 85083

Data Request Number: 2.11

Q. In-Service Dates & Capital Costs – Beginning as of 1/1/06, for all FWWS sewage system lift stations, treatment plants, and pressurized mains, please provide the in-service date and capital cost.

A. Since 2006 the following sewer system lift station, force main and treatment plant projects have been completed and placed into service.

<u>Project</u>	<u>In Service</u>	<u>Cost</u>	<u>Notes</u>
Del Oro WWTP (Temp)	6/30/2011	\$ 623,763	
Del Oro WWTP (Temp) -Zenon Module	6/30/2011	\$ 1,060,096	booked 6/29/07
Section 14 WWTP	8/24/2011	\$ 12,583,565	
Palm Shadows LS and FM	10/1/2011	\$ 619,813	
Del Oro WWTP (Ph I)	12/22/2011	\$ 4,495,923	

For detail of all completed projects see response to Staff DR GB – 1.4.

ATTACHMENT

3

Far West IDA Bonds
 Series 2007A and 2007B
 Closing Date: December 13, 2007

Construction Disbursements

<u>Project Description</u>	<u>Sewer</u>	<u>Water</u>	<u>Total</u>
Section 14 MBR WWTP Improvements	4,219,692.11	-	4,219,692.11
Palm Shadows Lift Station and Force Main (Decommission WWTP)	1,236,404.85	-	1,236,404.85
Zenon Temporary Treatment at Del Oro	1,700,939.40	-	1,700,939.40
Del Oro MBR WWTP Improvements	2,068,992.13	-	2,068,992.13
Seasons MBR WWTP Improvements	153,251.74	-	153,251.74
Force Mains to Del Oro (Decommission Del Rey and Royale WWTPs)	307,304.00	-	307,304.00
Paula Avenue Lift Station	607,381.75	-	607,381.75
Odor Control at WWTPs	11,886.81	-	11,886.81
Planning, Engineering, Hydrology, CM, Permitting, Legal for wastewater projects	4,879,568.17		4,879,568.17
Planning and Engineering for Water Treatment Plant		546,981.45	546,981.45
Implement GIS Mapping of Water and Sewer System	246,328.00	464,157.00	710,485.00
Purchase and install Frey Cubics customer billing system	104,800.00	419,200.00	524,000.00
Research and implement automated meter reading	-	278,370.12	278,370.12
Water Treatment Tech Review & Membrane Pilot	-	45,594.06	45,594.06
44th Street Water Main	-	19,517.98	19,517.98
Fortuna Road Water and Sewer Mains	269,714.88	109,772.63	379,487.51
Total Construction Disbursements	15,806,263.84	1,883,593.24	17,689,857.08

ATTACHMENT

4

Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
Response to Staff's Second Set of Data Requests

Response provided by: Sheryl Ferro

Title: Accounting Analyst

Address: 12486 S Foothills Blvd, Yuma, AZ 85367

Data Request Number: GB 2-1

Q. Related to Decision No. 72594, Finding of Facts 305 and 306 (related parties)-

1. Please identify all related parties.
2. Please provide a narrative description of the relationship between Far West and its related parties.
3. For each year since the last test year, including the test year in this proceeding, please provide a schedule by year showing the cash receipts and cash disbursements between Far West and its related parties, including H&S Developers. Please provide any written agreements covering those transactions and the rate making impact of those transactions.
4. For each year since the last test year, including the test year in this proceeding, please provide a schedule by year showing any unpaid liability and unpaid receivable between Far West and its related parties, including H&S Developers. Please provide any written agreements covering those transactions and the rate making impact of those transactions.
5. Please identify all resources shared with any related party, including H&S Developers. Please provide any written agreements covering those transactions and the rate making impact of those transactions.

A.

1. The following are related parties to Far West Water & Sewer, Inc.

Paula Capestro
Sandra Braden
Andrew J. Capestro
H&S Developers, Inc.

DBAs:

Hank's Market & Butcher Shop
Foothills Mini Mart
Foothills Sand & Gravel
Foothills Hardware & Lumber
Schechert Trust
Foothills Golf Courses
Las Barrancas Golf Course
Southwest Land, LLC
El Rancho Encantado, LLC
Q Mountain Water, Inc.

Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
Response to Staff's Second Set of Data Requests

2. Paula Capestro is the President of Far West, owns 50% of the stock of Far West and is on the Far West Board of Directors. Paula Capestro is the sister of Sandra Braden and the wife of Andrew Capestro. Paula Capestro receives and pays a water bill for her home receiving water service from Far West.

Sandra Braden is the Chief Executive Officer of Far West, owns 50% of the stock of Far West and is on the Far West Board of Directors. Sandra Braden is the sister of Paula Capestro. Sandra Braden receives and pays a water bill for her home receiving water service from Far West.

Andrew J. Capestro is the husband of Paula Capestro. Andrew J. Capestro provides legal and management services to Far West.

H&S Developers, Inc. is owned by Paula Capestro and Sandra Braden. H&S was the original developer of the Foothills area. H&S has main extension agreements with Far West. H&S originally held the certificates of convenience now held by Far West. The water and sewer certificates of convenience and necessity were transferred to Far West pursuant to Decision No. 60799 on April 8, 1998. Prior to Far West directly assuming all construction obligations during 2010, H&S provided construction services to Far West. H&S provides short term cash advances to Far West to meet short term operating cash needs. Far West employees occasionally provide services to H&S. When provided, those services are billed at cost to H&S. H&S owns and operates Hank's Market & Butcher Shop, Foothills Mini Mart, and Foothills Sand & Gravel. Far West purchases certain materials and supplies from those entities at retail prices. H&S receives and pays water and sewer bills for its properties receiving water or sewer service from Far West.

Foothills Hardware and Lumber is a partnership between Paula Capestro & Sandra Braden. Far West purchases certain materials and supplies from Foothills Hardware and Lumber at retail prices. Foothills Hardware and Lumber receives and pays water and sewer bills for its property receiving water or sewer service from Far West.

The Schechert Trust is a trust with Paula Capestro and Sandra Braden as the beneficiaries. The Schechert Trust has provided short term financing to Far West. The Schechert Trust has sold land to Far West.

The Foothills Golf Courses are owned by the Schechert Trust and operated by H&S Developers. The Foothills Golf Courses receive and pay water, sewer and effluent bills for their property.

The Las Barrancas Golf course is owned by the Schechert Trust and operated by H&S Developers. The Las Barrancas Golf Course receives and pays water, sewer and effluent bills for their property.

Southwest Land, LLC is owned by Paula Capestro and Andrew Capestro. Southwest land, LLC rents office space to Far West.

El Rancho Encantado, LLC is a residential development owned by Paula Capestro. El Rancho Encantado, LLC has main extension agreements with Far West. El Rancho Encantado has provided short term cash advances to Far West to meet short term operating cash needs. El Rancho Encantado receives and pays water and sewer bills for their properties.

Q-Mountain Water, Inc. is a small water company partially owned by Paula Capestro, Sandra Braden and the Schechert Trust. Far West's water division provides administrative services to Q-Mountain Water, Inc.

3. See attached file FWS DR2 GB 2-1 3 Cash Receipts and Disbursements.xlsx for the requested schedule. Note: Cash receipts for payment of water and sewer billings by related parties are not provided because these cash receipts are not tracked separately from other customer cash receipts. Other than main extension agreements, and the lease agreements noted in number 5 below, there are not written agreements. Note: Main Extension Agreements are voluminous and will be made available at the Company's offices.
4. See attached file FWS GB 2-1 4 Payables and Receivables to Related Party.xlsx for the requested schedule. There are no written agreements supporting these balances. The ratemaking impact of the accounts payable and accounts receivable balances is to the computation of working capital. The loan from the Schechert Trust affects the Company's capital structure.
5. Far West administrative personnel share an office building with H&S Developers. H&S Developers charge Far West for Far West's share of the operating expenses such as electricity, telephone and postage. Far West's rent for the administrative building is paid to Southwest Land, LLC. Far West Water & Sewer, Inc. customer service building is rented from Southwest Land, LLC. See attached files Southwest Land Lease 12486 S Foothills Blvd Acctg Ofc.PDF and Southwest Land Lease 13157 E 44th St Admin Ofc.PDF for lease agreements.

Certain Far West employee's also provide services to H&S Developers. The following positions, Payroll Manager, Safety Coordinator, Assistant Controller, and IT Manager split time between Far West and H&S. Far West wastewater is allocated 1/3 of these positions cost which is the only portion of the cost included in the requested salary expense in this case. Four employees, James Stone, Gary Foreman, Gerry Valle and Enrique Quevedo, work for both Far West and H&S. These employees charge each company for the actual time expended for each company and are paid separately by each company for their time. The amount included in the requested salary expense in this case is based on the actual test year charges to Far West. Four employees that work in the five acres vehicle repair shop service both Far West and H&S vehicles. They are paid by Far West. However, when they work on H&S vehicles, their time is tracked by work order with the actual cost of the service provided paid to Far West by H&S. See previously

Fair West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
Response to Staff's Second Set of Data Requests

provided workpaper FW Rate Case Data.xlsx, Tab: Payroll for detailed salary information.

ATTACHMENT

5

Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
Response to Staff's Sixth Set of Data Requests

Response provided by: Paula Capestro

Title: President

Address: 12486 S Foothills Blvd, Yuma, AZ 85367

Data Request Number: GWB 6.3

Q. Executive/Officer Salaries

1. Please describe the approximate annual hours spent working on Far West Water and Far West Sewer.
 2. Please describe the all other business pursuits undertaken by the owners of Far West and provide the approximate annual hours spent working on other business pursuits.
 3. Please indicate the approximate distance between the principal residences of each the owners of Far West and the Company's principal place of business.
- A. 1. Paula Capestro and Sandra Braden are the only executives and officers of Far West. Paula Capestro estimates that she works 2,075 hours per year performing Far West executive duties. Sandra Braden estimates that she works 250 hours per year performing Far West executive duties.
2. As more fully described in the Company's response to Staff DR GB 2-1, Paula Capestro and/or Sandra Braden are owners in the following business interests that are related parties to Far West.

H&S Developers, Inc.

DBAs:

Hank's Market & Butcher Shop

Foothills Mini Mart

Foothills Sand & Gravel

Foothills Hardware & Lumber

Schechert Trust

Foothills Golf Courses

Las Barrancas Golf Course

Southwest Land, LLC

El Rancho Encantado, LLC

Q Mountain Water, Inc.

In addition, Sandra Braden is associated with business unrelated the Far West involved in renting property (Texas Tango) and ranching (Braden Ranches). In addition, Sandra Braden holds a broker's license and is involved in land sales as a broker.

Far West Water & Sewer, Inc.
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Response to Staff's Sixth Set of Data Requests

Paula Capestro estimates that she spends 925 hours per year performing duties for the related parties to Far West. Sandra Braden estimates that she spends 400 hours per year performing duties for the related parties and her unrelated business interests.

3. Paula Capestro's principal residence is 11744 South Ironwood Drive, Yuma, Arizona 85367. Sandra Braden's principal residence is 11587 South Ironwood Drive, Yuma, Arizona 85367. Both are located less than one mile from the Far West administrative office.

ATTACHMENT

6

Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
Response to Staff's First Set of Data Requests

Response provided by: Ray L. Jones
Title: Consultant
Address: 25213 N. 49th Drive
Phoenix, Arizona 85083
Data Request Number: GB – 1.7

Q: Schedule B-5, page 2 - Computation of Cash Working Capital. In the workpapers provided Staff, the revenue lag days of 48.4768 days include 9 days of billing lag. Please provide any operational or other reasons that the billing lag could not be shortened to 5 days or less.

A. The nine day lag is based on a four-cycle per month billing schedule where a cycle of water meters is read on Monday through Friday of one week and the associated water and sewer billing is done on Friday of the following week. Far West believes that this schedule works well and is appropriate for the customer service and staffing levels currently maintained by Far West.

Current staffing consists of two meter readers and a single billing clerk that manually reviews 3,500 – 4,500 meter reads when they are returned from the field. The reads are checked for reading errors, high and low usage along with mailing courtesy letters to customers that possibly have property issues affecting meter reading. In order to shorten billing lag to five days or less, Far West would need additional personnel including a minimum of a second billing clerk and one additional meter reader. Far West would also need to invest in updated meter reading equipment, and other billing practices would need to be modified, including how the processing of late payment penalties and customer shut off procedures. For these reasons, Far West does not believe that shortening the billing lag is practical at this time.

ATTACHMENT

7

Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
Response to Staff's Sixth Set of Data Requests

Response provided by: Paula Capestro
Title: President
Address: 12486 S Foothills Blvd, Yuma, AZ 85367
Data Request Number: GWB 6.3

Q. Executive/Officer Salaries

1. Please describe the approximate annual hours spent working on Far West Water and Far West Sewer.
2. Please describe the all other business pursuits undertaken by the owners of Far West and provide the approximate annual hours spent working on other business pursuits.
3. Please indicate the approximate distance between the principal residences of each the owners of Far West and the Company's principal place of business.

A. 1. Paula Capestro and Sandra Braden are the only executives and officers of Far West. Paula Capestro estimates that she works 2,075 hours per year performing Far West executive duties. Sandra Braden estimates that she works 250 hours per year performing Far West executive duties.

2. As more fully described in the Company's response to Staff DR GB 2-1, Paula Capestro and/or Sandra Braden are owners in the following business interests that are related parties to Far West.

H&S Developers, Inc.
DBAs:
Hank's Market & Butcher Shop
Foothills Mini Mart
Foothills Sand & Gravel
Foothills Hardware & Lumber
Schechert Trust
Foothills Golf Courses
Las Barrancas Golf Course
Southwest Land, LLC
El Rancho Encantado, LLC
Q Mountain Water, Inc.

In addition, Sandra Braden is associated with business unrelated the Far West involved in renting property (Texas Tango) and ranching (Braden Ranches). In addition, Sandra Braden holds a broker's license and is involved in land sales as a broker.

Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
Response to Staff's Sixth Set of Data Requests

Paula Capestro estimates that she spends 925 hours per year performing duties for the related parties to Far West. Sandra Braden estimates that she spends 400 hours per year performing duties for the related parties and her unrelated business interests.

3. Paula Capestro's principal residence is 11744 South Ironwood Drive, Yuma, Arizona 85367. Sandra Braden's principal residence is 11587 South Ironwood Drive, Yuma, Arizona 85367. Both are located less than one mile from the Far West administrative office.

ATTACHMENT

8

Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
Response to Staff's Second Set of Data Requests

Response provided by: Ray Jones
Title: Consultant
Address: 25213 N. 49th Drive
Phoenix, AZ 85083
Data Request Number: GB 2-3

Q. Related to Decision No. 72594, Finding of Facts 308 and 309 - Please provide a description of any area served by FWWS that is not within its CC&N and whether any such areas are considered to be contiguous. If any area is not considered to be contiguous, please describe the authority under which service is provided.

A. There are four small areas contiguous to the Far West Sewer CC&N that are served by Far West. A description of each follows:

Sierra Ridge – Sierra Ridge is a 113 unit residential subdivision located just south of I-8 and east of Avenue 12E. In addition to being conThe Commission authorized

Arroyo 1 – Arroyo 1 is a 123 unit residential subdivision located south of 44th Street and east of Ironwood Drive.

El Rancho Encantado 1 – El Rancho Encantado 1 is a 91 unit residential subdivision located south of 48th Street and west of Foothills Blvd.

Shell Gas Plaza – This small commercial development contains a gas station and a fast food restaurant. It is located on the southeast corner of I-8 and Fortuna Road.

ATTACHMENT

9

Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
Response to Staff's Fifth Set of Data Requests

Response provided by: Ray L. Jones
Title: Consultant
Address: 25213 N. 49th Drive
Phoenix, AZ 85083
Data Request Number: GWB 5.8

- Q. Refer to FW Original Filing.xlsx, Bad Debt Expense, \$33,490
1. Please explain the methodology used by the Company to record Bad Debt Expense.
 2. Please provide a 3 year trend for each of the 3 years ending with the test year.
 3. Please explain significant fluctuations.

A.

1.

Period	Bad Debt Expense	Methodology Used
2009	5,630.00	Disconnected (Final) customers with balances as of December 31, 2008 written off.
2010	0.00	Bad debt schedules not compiled due to software conversion during 2010.
2011	33,489.65	Customer accounts with no payment received on account for one year written off.
	<u>39,119.65</u>	

2-3.

Period	Bad Debt Expense	Significant Fluctuations
2009	5,630.00	
2010	0.00	No bad debts schedules compiled.
2011	33,489.65	Change in methodology. Customer accounts with no payment received on account for one year written off. Represents two years of bad debt.
Total	<u>39,119.65</u>	
Annual Average	13,039.88	
2011 Sales	2,239,713.00	
Percent of Sales	0.58%	

ATTACHMENT

10

Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
Response to Staff's Third Set of Data Requests

Response provided by: **Ray L. Jones**

Title: **Consultant**

Address: **25213 N. 49th Drive**
 Phoenix, AZ 85083

Data Request Number: **JA – 3.48**

- Q. Regarding the refunds due to Spartan Homes from Far West/H&S Development, per Decision No. 72594, Staff notes documentation supporting a payment of \$47,682 paid to Spartan on or about July 31, 2012. Please provide a status report regarding the balance of the refunds due to Spartan.
- A. The balance of funds has not been paid. The Company is continuing its efforts to secure needed funds to pay the balance.

ATTACHMENT

11

Far West Water & Sewer, Inc

Sewer Division

Unpaid Receivables - Related Party

Year	Description	Related Party	Balance	Comments
2008	Accounts Receivable, Assoc Co-Util Bills	Various	192,271.20	
			<u>192,271.20</u>	
2009	Accounts Receivable, Las Barrancas Effluent	Las Barrancas Golf Course	83,574.60	
2009	Accounts Receivable, Par 3 & Executive Effluent	Foothills Golf Courses	213,233.60	
			<u>296,808.20</u>	
2010	Accounts Receivable, Assoc Co-Util Bills	Various	1,696.50	
2010	Accounts Receivable, Par 3 & Executive Effluent	Foothills Golf Courses	280,002.60	
2010	Accounts Receivable, Foothills Golf Courses, Lease	Foothills Golf Courses	11,962.56	
2010	Accounts Receivable, Las Barrancas Effluent	Las Barrancas Golf Course	77,852.00	
			<u>371,513.66</u>	
2011	Accounts Receivable, Assoc Co-Util Bills	Various	69.46	
2011	Accounts Receivable, Par 3 & Executive Effluent	Foothills Golf Courses	302,082.00	
2011	Accounts Receivable, Las Barrancas Effluent	Las Barrancas Golf Course	74,107.00	
2011	Accounts Receivable, Work Orders Associated Co	Various	25,701.74	
			<u>401,960.20</u>	

ATTACHMENT

12

Far West Water & Sewer, Inc.
Sewer Division
Schedule of Accrued Property Taxes
December 31, 2011

Account Number	Tax Year	Amount
U0000005	2008	77,310.98
U0000005	2009	78,499.36
U0000005	2010	92,160.84
U0000005	2011	120,542.44
R0084260	2011	10.76
R0094957	2011	345.88
R0094958	2011	350.28
R0094959	2011	350.28
R0094960	2011	350.28
R0094961	2011	<u>1,324.00</u>
	Total	<u><u>371,245.10</u></u>

ATTACHMENT

13

Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
Response to Staff's Seventh Set of Data Requests

Response provided by: Ray L. Jones
Title: Consultant
Address: 25213 N. 49th Drive
Phoenix, AZ 85083
Data Request Number: GWB 7.2

Q. Vendor Interest Recorded in Utility Plant and CWIP –

1. In response the Staff data request GB 5.5, the Company indicates that \$904,992 was charged for vendor interest. Please provide a schedule showing the support for each item by amount/invoice overdue, interest rate, late charges calculated, date that each invoice became due and the date that the invoice was satisfied either by payment or by executing a promissory note.
2. Please provide a schedule by plant description showing if there were any legal or other fees incurred to resolved unpaid bills. Please indicate the dates and accounts where those costs are reflected.
3. Explain the role played by Mr. Capestro, as project manager, on behalf of Far West, when the company started encountering late payment interest and charges from vendors?

A.

1. Please see attached files:
GWB 7.2(1) Summary Vendor Interest Recorded in Utility Plant.pdf
GWB 7.2(1) Supporting Docs Vendor Interest Invoices.pdf
GWB 7.2(1) Vendor Interest Recorded in Utility Plant.xlsx
2. Please see attached files:
GWB 7.2(2) Summary Plant Legal Other Fees Incurred to Resolve Unpaid Bills.pdf
GWB 7.2(2) Plant Legal Other Fees Incurred to Resolve Unpaid Bills.xls
3. Mr. Capestro, as project manager, on behalf of Far West, negotiated contracts, entered into payment arrangements, looked for additional financing, extended payments with creditors, negotiated finance charges, renegotiated contracts to exclude finance charges, and/or to lower finance charges. Mr. Capestro also refinanced higher interest finance charges with lower interest finance charges.

Far West Water & Sewer, Inc.
 Summary of Vendor Interest
 Recorded in Utility Plant and Construction Work in Progress
 Thru December 31, 2011

<u>Plant Description</u>	<u>NARUC 105</u>	<u>NARUC 371</u>	<u>NARUC 380</u>	<u>Total</u>
Section 14 WWTP	-	-	619,964.07	619,964.07
Del Oro WWTP	-	-	269,534.10	269,534.10
Palm Shadows Lift Station	-	6,963.66	-	6,963.66
CWIP-Seasons WWTP	2,798.54	-	-	2,798.54
CWIP-Miscellaneous	5,732.04	-	-	5,732.04
Total	<u>8,530.58</u>	<u>6,963.66</u>	<u>889,498.17</u>	<u>904,992.41</u>

<u>Plant Description</u>	<u>JCI INDUSTRIES</u>	<u>ZENON</u>	<u>WASTE TECH - KUSTERS ZIMA CORPORATION</u>	<u>Essco Wholesale</u>	<u>Total</u>
Section 14 WWTP	9,795.87	565,233.54	26,487.50	18,447.16	619,964.07
Del Oro WWTP	2,229.68	267,304.42	-	-	269,534.10
Palm Shadows Lift Station	9,963.66	-	-	-	6,963.66
CWIP-Seasons WWTP	2,798.54	-	-	-	2,798.54
CWIP-Miscellaneous	5,732.04	-	-	-	5,732.04
Total	<u>27,519.79</u>	<u>832,537.96</u>	<u>26,487.50</u>	<u>18,447.16</u>	<u>904,992.41</u>

ATTACHMENT

14

Far West Water & Sewer, Inc.
 Summary of Costs Incurred to Resolve Unpaid Bills
 By Project & NARUC Account

Project	Date In Service	Total In Service	354 Structure Imprmnts	355 Power Gen Eq	360 Lift Stn	360 Force Main	367 Effluent Flow Metering	370 Wet Well	371 Pumping Eq	380 Trtmt Eq	381 Plant Sewers	382 Outfall Swr Lines Effluent	389 Vadose Well	390 Ofc Furn, Eq	396 Commun Eq	105 CWTP
Del Oro WWTP	2011	56,647.49	1,601.65			0.34			287.48	54,383.76	371.53	-	-	2.72		1,580.65
Plm Shdws Force Main	2011	121.53				121.53										
Plm Shdws Lift Stn	2011	36.69		4.08	21.38				11.23							
Other Projects		-														268.22
Total		168,193.20	2,681.34	4.08	36.24	125.07	1.16	70.27	681.40	163,557.42	781.62	1.71	245.29	5.94	1.66	1,848.87

ATTACHMENT

15

Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
Response to Staff's Seventh Set of Data Requests

Response provided by: Sheryl Ferro

Title: Accounting Analyst

Address: 12486 S Foothills Blvd, Yuma, AZ 85367

Data Request Number: **GWB 7.1**

Q: Project Management Fees-Regarding the fees charged by Mr. Capestro to capital projects since the last rate case.

1. Please provide a schedule showing all payments, dates, and the projects charged.
2. Please provide copies all written reports provided by Mr. Capestro to Company management regarding the status or other concerns with the projects.
3. Please indicate if there were any logs kept of time spent or exact tasks performed on projects and provide copies of those reports.
4. Provide a copy of all expense reports paid on behalf of Mr. Capestro related to this project management effort.
5. In Company response 5.3(8), the Company indicates that \$1,432,376 was paid to Coriolis for "Construction Management". Please explain the reasons that it was necessary to supplement the construction management services provided by Coriolis with the services of Mr. Capestro. Please also indicate if there were any construction management fees paid to parties other than Coriolis and Mr. Capestro.
6. Who approved this fee arrangement with Mr. Capestro?
7. Who reviewed and approved invoices received from Mr. Capestro related to these management fees services?
8. Identify and discuss all instances where Mr. Capestro, serving in this capacity, identified and brought significant project problems to the attention of management.

A.

1. Please see attached file [GWB 7.1 \(1\) Construction Mgmt Fees Andrew J Capestro.pdf](#).
2. Please see attached reports:
ADEQ compliance Oct 13 2011.pdf
ADEQLetterreProcurementNov302010.pdf

Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
Response to Staff's Seventh Set of Data Requests

ADEQLtrJan312011b.pdf
AmendedSEP.pdf
Compliance report stabilization of operations.pdf
Compliance letter re Section 14 sub 2 and 3.pdf
Compliance letter Oct 15 2012.pdf
Compliance report Sept 8 2010 (2).pdf
First Quarter 2012 compliance report.pdf
Fourth Quarter 2010 Progress report of Far West.pdf
Fourth quarter 2012 compliance report Jan 15 2013.pdf
January 15 2013 compliance letter.pdf
LetterremodifiedSEP.pdf
LetterremodifiedSEP1.pdf
MarciaColquittWaterQualityEnforcement quarterly.pdf
Supplementalreportonprocrementb.pdf

3. The project management fees were a standard monthly fee based upon the standard rate. No logs or tasks were necessary.
4. There were no expense reports submitted by or paid to Mr. Capestro.
5. Coriolis, LLC did not complete their contract with Far West Water & Sewer, Inc., discontinuing services in March 2009 before the wastewater treatment plant projects were finished. Their contract (see [GWB 7.1\(5\) Coriolis Agreement\[1\].pdf](#) and [GWB 7.1\(5\) FWW Coriolis Agreement.pdf](#)) was for \$2.2 million dollars of which \$1,432,376 was paid for services provided through March 2009. In March 2009, Andrew Capestro and Paula Capestro began directly managing the projects. Of note, Mr. Capestro did not start billing or receiving construction management fees until January 2010, nine months after the contract for Coriolis, LLC was terminated. Since, Paula Capestro is a salaried employee of Far West, she has not charged nor has she received any construction management fees.
6. The Board of Directors approved the fee arrangement for Mr. Capestro.
7. The project management fees were a standard monthly fee based upon the standard rate. No reviewing and approval of the invoices were necessary.
8. Please refer to progress reports provided in response to GWB 7.1 (2).

Far West Water & Sewer, Inc.
 Schedule of Construction Management Fees
 Paid to Andrew J. Capestro

Type	Date	Num	Name	Memo	Total Amount	Project Allocation:										44th St Water Lines	
						Section 14 WWTP	Del Oro WWTP	Palm Shadows Force Main	Palm Shadows Lift Station	CWIP Season WWTP	CWIP Palm Shadows WWTP						
Bill	01/31/2010		2 CAPESTRO, ANDREW J	CONSTRUCTION MGE; DAILY INSPECTION OF PLANTS & ETC	10,000.00	7,323.55	1,572.71	849.79	219.97	33.98	33.98	219.97	33.98	33.98	219.97	33.98	176.85
Bill	02/28/2010		2 CAPESTRO, ANDREW J	CONSTRUCTION MGE; DAILY INSPECTION OF PLANTS & ETC	10,000.00	7,323.55	1,572.71	849.79	219.97	33.98	33.98	219.97	33.98	33.98	219.97	33.98	176.85
Bill	03/31/2010		2 CAPESTRO, ANDREW J	CONSTRUCTION MGE; DAILY INSPECTION OF PLANTS & ETC	10,000.00	7,323.55	1,572.71	849.79	219.97	33.98	33.98	219.97	33.98	33.98	219.97	33.98	176.85
Bill	04/30/2010		2 CAPESTRO, ANDREW J	CONSTRUCTION MGE; DAILY INSPECTION OF PLANTS & ETC	10,000.00	7,323.55	1,572.71	849.79	219.97	33.98	33.98	219.97	33.98	33.98	219.97	33.98	176.85
Bill	05/31/2010		2 CAPESTRO, ANDREW J	CONSTRUCTION MGE; DAILY INSPECTION OF PLANTS & ETC	10,000.00	7,323.55	1,572.71	849.79	219.97	33.98	33.98	219.97	33.98	33.98	219.97	33.98	176.85
Bill	06/30/2010		2 CAPESTRO, ANDREW J	CONSTRUCTION MGE; DAILY INSPECTION OF PLANTS & ETC	10,000.00	7,323.55	1,572.71	849.79	219.97	33.98	33.98	219.97	33.98	33.98	219.97	33.98	176.85
Bill	07/30/2010		2 CAPESTRO, ANDREW J	CONSTRUCTION MGE; DAILY INSPECTION OF PLANTS & ETC	10,000.00	7,323.55	1,572.71	849.79	219.97	33.98	33.98	219.97	33.98	33.98	219.97	33.98	176.85
Bill	08/30/2010		2 CAPESTRO, ANDREW J	CONSTRUCTION MGE; DAILY INSPECTION OF PLANTS & ETC	10,000.00	7,323.55	1,572.71	849.79	219.97	33.98	33.98	219.97	33.98	33.98	219.97	33.98	176.85
Bill	09/30/2010		2 CAPESTRO, ANDREW J	CONSTRUCTION MGE; DAILY INSPECTION OF PLANTS & ETC	10,000.00	7,323.55	1,572.71	849.79	219.97	33.98	33.98	219.97	33.98	33.98	219.97	33.98	176.85
Bill	10/31/2010	2011-01	2 CAPESTRO, ANDREW J	CONSTRUCTION MGE JAN 2011	10,000.00	5,641.90	1,720.34	416.31	1,543.78	370.93	370.93	1,543.78	370.93	370.93	1,543.78	370.93	176.85
Bill	02/01/2011	2011-02	2 CAPESTRO, ANDREW J	CONSTRUCTION MGE FEB 2011	10,000.00	5,641.90	1,720.34	416.31	1,543.78	370.93	370.93	1,543.78	370.93	370.93	1,543.78	370.93	176.85
Bill	03/01/2011	2011-03	2 CAPESTRO, ANDREW J	CONSTRUCTION MGE MAR 2011	10,000.00	5,641.90	1,720.34	416.31	1,543.78	370.93	370.93	1,543.78	370.93	370.93	1,543.78	370.93	176.85
Bill	04/01/2011	2011-04	2 CAPESTRO, ANDREW J	CONSTRUCTION MGE APR 2011	10,000.00	5,641.90	1,720.34	416.31	1,543.78	370.93	370.93	1,543.78	370.93	370.93	1,543.78	370.93	176.85
Bill	05/01/2011	2011-05	2 CAPESTRO, ANDREW J	CONSTRUCTION MGE MAY 2011	10,000.00	5,641.90	1,720.34	416.31	1,543.78	370.93	370.93	1,543.78	370.93	370.93	1,543.78	370.93	176.85
Bill	06/01/2011	2011-06	2 CAPESTRO, ANDREW J	CONSTRUCTION MGE JUNE 2011	10,000.00	5,641.90	1,720.34	416.31	1,543.78	370.93	370.93	1,543.78	370.93	370.93	1,543.78	370.93	176.85
Bill	07/01/2011	2011-07	2 CAPESTRO, ANDREW J	CONSTRUCTION MGE JULY 2011	10,000.00	5,641.90	1,720.34	416.31	1,543.78	370.93	370.93	1,543.78	370.93	370.93	1,543.78	370.93	176.85
Bill	08/01/2011	2011-08	2 CAPESTRO, ANDREW J	CONSTRUCTION MGE AUG 2011	10,000.00	5,641.90	1,720.34	416.31	1,543.78	370.93	370.93	1,543.78	370.93	370.93	1,543.78	370.93	176.85
Bill	09/01/2011	2011-09	2 CAPESTRO, ANDREW J	CONSTRUCTION MGE SEPT 2011	10,000.00	5,641.90	1,720.34	416.31	1,543.78	370.93	370.93	1,543.78	370.93	370.93	1,543.78	370.93	176.85
Bill	10/31/2011	2011-10	2 CAPESTRO, ANDREW J	CONSTRUCTION MGE OCT 2011	10,000.00	5,641.90	1,720.34	416.31	1,543.78	370.93	370.93	1,543.78	370.93	370.93	1,543.78	370.93	176.85
Bill	11/30/2011	2011-11	2 CAPESTRO, ANDREW J	CONSTRUCTION MGE NOV 2011	10,000.00	5,641.90	1,720.34	416.31	1,543.78	370.93	370.93	1,543.78	370.93	370.93	1,543.78	370.93	176.85
Bill	12/31/2011	2011-12	2 CAPESTRO, ANDREW J	CONSTRUCTION MGE DEC 2011	10,000.00	5,641.90	1,720.34	416.31	1,543.78	370.93	370.93	1,543.78	370.93	370.93	1,543.78	370.93	176.85
					210,000.00	133,614.75	34,798.47	12,643.83	20,505.09	4,756.98	1,558.68	2,122.20	1,558.68	4,756.98	1,558.68	2,122.20	

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)
FAR WEST WATER & SEWER COMPANY FOR)
A DETERMINATION OF THE FAIR VALUE)
OF ITS UTILITY PLANT AND PROPERTY)
AND FOR INCREASES IN ITS)
WASTEWATER RATES AND CHARGES FOR)
UTILITY SERVICE THEREON.)
_____)

DOCKET NO. WS-03478A-12-0307

DIRECT

TESTIMONY

OF

JIAN W. LIU

UTILITIES ENGINEER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

FEBRUARY 13, 2013

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PURPOSE OF TESTIMONY	2
ENGINEERING REPORT	3
RECOMMENDATIONS AND CONCLUSIONS	3

EXHIBITS

Engineering Report for Far West Water & Sewer, Inc.	JWL
--	-----

1 **INTRODUCTION**

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

3 A. My name is Jian W. Liu. My business address is 1200 West Washington Street, Phoenix,
4 Arizona 85007.

5
6 **Q. By whom and in what position are you employed?**

7 A. I am employed by the Arizona Corporation Commission (“Commission” or “ACC”) as a
8 Utilities Engineer - Water/Wastewater in the Utilities Division.

9
10 **Q. How long have you been employed by the Commission?**

11 A. I have been employed by the Commission since October 2005.

12
13 **Q. What are your responsibilities as a Utilities Engineer - Water/Wastewater?**

14 A. My main responsibilities are to inspect, investigate and evaluate water and wastewater
15 systems. This includes obtaining data, preparing reconstruction cost new and/or original
16 cost studies, investigative reports, interpreting rules and regulations, and to suggest
17 corrective action and provide technical recommendations on water and wastewater system
18 deficiencies. I also provide written and oral testimony in rate cases and other cases before
19 the Commission.

20
21 **Q. How many companies have you analyzed for the Utilities Division?**

22 A. I have analyzed more than 40 companies fulfilling these various responsibilities for
23 Utilities Division Staff (“Staff”).

24
25 **Q. Have you previously testified before this Commission?**

26 A. Yes, I have testified on numerous occasions before this Commission.

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

2 A. I am a Ph.D. Candidate in Geotechnical Engineering from Arizona State University
3 (“ASU”). I have a Master of Science Degree in Natural Science from ASU and a Master
4 of Science Degree in Civil Engineering from Institute of Rock & Soil Mechanics
5 (“IRSM”), Academy of Sciences, China.

6
7 **Q. Briefly describe your pertinent work experience.**

8 A. From 1982 to 2000, I was employed by IRSM, SCS Engineers, and URS Corporation as a
9 Civil and Environmental Engineer. In 2000, I joined the Arizona Department of
10 Environmental Quality (“ADEQ”). My responsibilities with ADEQ included review and
11 approval of water distribution systems, sewer distribution systems, and on-site wastewater
12 treatment facilities. I remained with ADEQ until transferring to the Commission in
13 October 2005.

14
15 **Q. Please state your professional membership, registrations, and licenses.**

16 A. I am a licensed professional civil engineer in the State of Arizona.
17

18 **PURPOSE OF TESTIMONY**

19 **Q. What was your assignment in this rate proceeding?**

20 A. My assignment was to provide Staff’s engineering evaluation of the Far West Water &
21 Sewer, Inc. (“Far West” or “Company”) application to increase its rates for wastewater
22 service. I reviewed the Company’s application and responses to data requests, and I
23 inspected the wastewater systems. This testimony and its attachments present Staff’s
24 engineering evaluation. The findings of my engineering evaluation are contained in the
25 Engineering Report that I have prepared for this proceeding. The report is included as
26 Exhibit JWL in this pre-filed testimony.

1 **ENGINEERING REPORT**

2 **Q. Please describe the information contained in your Engineering Report.**

3 A. The Report is divided into three general sections: 1) *Executive Summary*; 2) *Engineering*
4 *Report Discussion*, and 3) *Engineering Report Exhibit*. The *Discussion* section can be
5 further divided into eight subsections: A) Location of Company; B) Description of the
6 Wastewater System; C) Wastewater Flow; D) Growth; E) ADEQ Compliance; F) Arizona
7 Corporation Commission (“Commission” or “ACC”) Compliance; G) Depreciation Rates;
8 H) Other Issues.

9
10 **RECOMMENDATIONS AND CONCLUSIONS**

11 **Q. What are Staff’s conclusions and recommendations regarding the Company’s**
12 **operations?**

13 A. Staff’s conclusions and recommendations regarding the Company’s operations are listed
14 below.

15
16 **CONCLUSIONS:**

- 17
- 18 1. The Company’s wastewater treatment plants (“WWTPs”) are not in compliance with
19 Arizona Department of Environmental Quality (“ADEQ”) regulations. On June 22,
20 2010, ADEQ issued a Consent Judgment against Far West.
 - 21
 - 22 2. A check with the Utilities Division Compliance Section indicates that there is one
23 delinquent item for Far West (ACC Compliance Section Email dated 1/18/2013).
 - 24
 - 25 3. Staff inspected the Seasons WWTP on January 9th, 2013. The portable Membrane Bio
26 Reactor (“MBR”) wastewater treatment module was not in service and therefore not
27 used and useful during Staff’s field inspection.
 - 28
 - 29 4. Staff concludes that Far West has adequate treatment capacity to serve the existing
30 customer base and reasonable growth.
 - 31
 - 32 5. Staff recommends that the portable MBR wastewater treatment module located in
33 Seasons WWTP be removed from rate base in this proceeding because it was not in
34 service by end of the test year , and not in service during Staff’s field inspection. The
35 cost is \$1,060,096.
- 36

1 **RECOMMENDATIONS:**

- 2
- 3 1. Staff recommends that Far West be required to provide separate wastewater
- 4 descriptions (Lift Stations, Force Mains, Manholes, Cleanouts, Collection Mains, and
- 5 Service Laterals) for each of its Wastewater Treatment Plants in future Commission
- 6 Annual Reports, beginning with the 2013 Annual Report filed in 2014.
- 7
- 8 2. Staff recommends that any increase in rates and charges approved in this proceeding
- 9 shall not become effective until the Company files documentation from ADEQ that
- 10 the Far West's WWTPs are in compliance with ADEQ's Consent Judgment as it may
- 11 be amended.
- 12
- 13 3. In the prior rate case, the Company adopted Staff's typical and customary
- 14 depreciation rates for wastewater system plant. These rates are presented in Table G-
- 15 1 and it is recommended that the Company continue to use these depreciation rates by
- 16 individual National Association of Regulatory Utility Commissioners category.
- 17
- 18 4. Staff has reviewed the information provided by the Company and recommends the
- 19 Company's reported annual testing expense of \$147,025 be used for purposes of this
- 20 application.
- 21
- 22 5. Staff recommends that the portable MBR wastewater treatment module located in
- 23 Seasons WWTP be removed from rate base in this proceeding because it was not in
- 24 service by end of the test year , and not in service during Staff's field inspection. The
- 25 cost is \$1,060,096.
- 26

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

28 **A.** Yes, it does.

EXHIBIT JWL

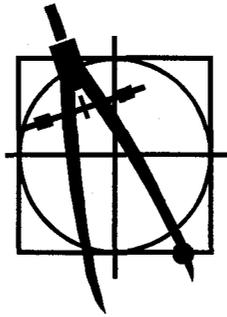
ENGINEERING REPORT FOR

FAR WEST WATER & SEWER, INC.

**DOCKET NO. WS-03478A-12-0307
(RATES FOR WASTEWATER SERVICE)**

JIAN W LIU

FEBRUARY 8, 2013



**Engineering Report
For Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307
(Rates for Wastewater Service)**

By Jian W Liu

February 8, 2013

EXECUTIVE SUMMARY

CONCLUSIONS:

1. The Company's WWTPs are not in compliance with Arizona Department of Environmental Quality ("ADEQ") regulations. On June 22, 2010, ADEQ issued a Consent Judgment against Far West.
2. A check with the Utilities Division Compliance Section indicates that there is one delinquent item for Far West (ACC Compliance Section Email dated 1/18/2013).
3. Staff inspected the Seasons WWTP on January 9th, 2013. The portable Membrane Bio Reactor ("MBR") wastewater treatment module was not in service and therefore not used and useful during Staff's field inspection.
4. Staff concludes that Far West has adequate treatment capacity to serve the existing customer base and reasonable growth.

RECOMMENDATIONS:

1. Staff recommends that Far West be required to provide separate wastewater descriptions (Lift Stations, Force Mains, Manholes, Cleanouts, Collection Mains, and Service Laterals) for each of its Wastewater Treatment Plants in future Commission Annual Reports, beginning with the 2013 Annual Report filed in 2014.
2. Staff recommends that any increase in rates and charges approved in this proceeding shall not become effective until the Company files documentation from ADEQ that the Far West's WWTPs are in compliance with ADEQ's Consent Judgment as it may be amended.
3. In the prior rate case, the Company adopted Staff's typical and customary depreciation rates for wastewater system plant. These rates are presented in Table G-1 and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.

4. Staff has reviewed the information provided by the Company and recommends the Company's reported annual testing expense of \$147,025 be used for purposes of this application.
5. Staff recommends that the portable MBR wastewater treatment module located in Seasons WWTP be removed from rate base in this proceeding because it was not in service by end of the test year , and not in service during Staff's field inspection. The cost is \$1,060,096.

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A. LOCATION OF COMPANY

Far West Water & Sewer, Inc. (“Far West” or “Company”) is an Arizona public service corporation authorized to provide water and wastewater service within portions of Yuma County, Arizona. On July 6, 2012, the Company filed an application with the Arizona Corporation Commission (“Commission” or “ACC”) to increase its rates for wastewater service. The Company’s existing Certificate of Convenience and Necessity (“CC&N”) for wastewater service covers an area totaling approximately 4,335 acres or roughly seven square miles. Far West had over 7,400 residential wastewater customers, 45 commercial wastewater customers and 4 recreational vehicle parks containing over 700 spaces in December 2011. Figure A-1 shows the location of the Company within Yuma County and Figure A-2 shows the certificated area.

B. DESCRIPTION OF THE WASTEWATER SYSTEM

The Far West wastewater system consists of a collection system with 16 lift stations. There are six wastewater treatment plants (“WWTPs”). The plant facilities were visited on January 9th, 2013, by Jian Liu, Commission Utilities Division Staff (“Staff”) Engineer, in the accompaniment of Michael Crowe, President of Priority Well Service, Inc., representatives from the Company included Isaac Yocupicio, Wastewater Supervisor, Andrew Capestro, Operations Manager, and Paula Capestro, President.

Table 1. Wastewater Treatment Plants

Name or Description	Plant Items	Location
Marwood	340,000 gallon per day (“GPD”) sequencing batch reactor (“SBR”)	14000 E. 56th Street
Section 14	1,300,000 GPD Membrane Bio Reactor (“MBR”)	12651 S. Avenue 14E
Villa Royale	10,000 GPD Santec extended aeration	12342 E. Del Rico
Del Oro	495,000 GPD MBR	11717 Omega Lane
Del Rey	40,000 GPD Santec extended aeration	12342 E. Del Rico
Seasons	150,000 GPD SBR	10301 E. County 10th Street

Table 2. Lift Stations

Lift Station	Location	Quantity of Pumps	Horsepower per Pump	Capacity per Pump (GPM)	Wet Well Capacity (gals.)
Desert Foothills Estates #7	13110 38th St.	2	7.5	150	3,000
Foothills Mobile Estates(FME) #15	14191 E. 49th Lane	2	30	360	8,000
FME #16	12587 S. Foothills Blvd.	1	30	360	4,000
FME #25	12500 44th St.	2	11	220	4,000
FME #27	14599 52nd St.	2	7	140	4,000
FH Grocery Store	11720 S. Foothills Blvd.	1	2	40	2,000
Ocatillo Plaza	11792 S. Foothills Blvd.	1	3	60	2,000
Domino's Pizza	11361 S. Foothills Blvd.	2	1.5	30	2,000
Foothills Hardware	11748 S. Foothills Blvd.	1	3	60	2,000
Vista Del Sol	3352 Puesta Del Sol	2	15	300	4,000
Mesa del Sol #11	10208 Cony Avenue	2	15	300	4,000
Mesa del Sol #12	10535B 28th St.	2	15	300	4,000
Foothills Restaurant	12871B S. Frontage Rd	1	2	60	2,000
Palm Shadows	9700 E. 40th St.	2	100	1200	6,000
Arroyo de Fortuna	13712 44th St.	2	1.5	60	4,000
Las Barrancas	12344 Avenue 14 112 E	2	3	60	4,000

Notes: GPM = gallons per minute and gals = gallons.

Table 3. Force Mains

Size	Material	Length (Feet)
4-inch	PVC	11,020
4-inch	Ductile Iron	450
6-inch	PVC	24,085
12-inch	PVC	26,700
	Total:	62,255

Table 4. Manholes

Type	Quantity
Standard	1,171
Drop	32

Table 5. Cleanouts

Quantity
120

Table 6. Collection Mains

Diameter	Material	Length (Feet)
2-inch	HDPE Low Pressure	1,018
3-inch	HDPE Low Pressure	1,621
4-inch	HDPE Low Pressure	795
6-inch	HDPE Low Pressure	1,697
6-inch	PVC	5,704
8-inch	PVC	344,774
10-inch	PVC	15,084
12-inch	PVC	37,329
15-inch	PVC	3,966
18-inch	PVC	3,285
	Total:	415,273

Table 7. Service Laterals

Size	Quantity
4-inch	10,262
6-inch	
8-inch	1
1.5-inch	92
Total:	10,355

The detailed plant facility descriptions for each wastewater treatment plant (“WWTP”) is as follows:

Marwood WWTP

The WWTP consists of a 340,000 GPD continual flow Sequential Batch Reactor (“SBR”). Actual flow is between 150,000-267,000 GPD. There are four SBR reactors and a chlorine contact basin where liquid chlorine is utilized for disinfection. The facility has a hydro sieve¹ that is utilized at the headworks. Effluent is discharged into lined basins at the WWTP. Effluent is used for irrigation of two golf courses.

¹ Hydro Sieve is designed for solid/liquid separation.

Section 14 WWTP

Currently, the Section 14 WWTP has capacity to treat 0.8125 Million Gallons per Day (“MGD”) of raw sewage, and is permitted to treat 0.681 MGD. Actual flow is between 76,000-511,000 GPD. Far West has completed the Section 14 WWTP Phase I Expansion, and began operating the Palm Shadows Collection System on October 1, 2011. The future Phase II and Phase III Expansions, once completed, will bring the final capacity to 1.30 MGD. Effluent is used for irrigation of the Las Barrancas Golf Course.

Villa Royale WWTP

The WWTP is a 10,000 GPD Santec extended aeration wastewater treatment facility. The facility has an influent wetwell liftstation and a headworks with a micro screen. Actual flow is between 2,000-4,000 GPD. Effluent is used for irrigation of the Mesa Del Sol Golf Course.

Villa Royale WWTP is scheduled for decommissioning after Del Oro WWTP Phase I 0.30 MGD Expansion is completed, and the current Villa Royale pump station will be upgraded to a lift station and integrated into the Villa Royale collection system force main.

Del Oro WWTP

Del Oro WWTP has the capacity to treat 0.30 MGD of raw sewage. Future Phase II Expansions will be constructed to a final capacity of 0.495 MGD. Actual flow is between 116,000-213,000 GPD. Effluent is used for irrigation of the Mesa Del Sol Golf Course.

Del Rey WWTP

The WWTP is a 40,000 MGD Santec extended aeration wastewater treatment facility with an influent pump station, aeration tanks, one clarifier and a chlorine contact chamber. Actual flow is between 13,000-18,000 GPD. Effluent is being pumped to the Mesa Del Sol Golf Course. Del Rey WWTP is scheduled for decommissioning after Del Oro WWTP Phase I 0.30 MGD Expansion is completed, but installation of the future Del Rey raw sewage pump station, including the infrastructure required to connect the future Del Rey raw sewage pump station to the collection system force main, has not begun, as Far West has not been able to obtain the sewer utility easement rights to install the force main. The decommissioning of the Del Rey WWTP will not commence until the easement is obtained.

Seasons WWTP

Far West has moved a portable Membrane Bio Reactor (“MBR”) wastewater treatment module from Del Oro WWTP to the Seasons WWTP in December 2011. The MBR module was not in service by the end of the test year, nor as of the date of Staff’s inspections on January 9, 2013.

The Company is completing the Seasons WWTP 0.15 MGD upgrades. The current WWTP is designed to treat approximately 75,000 GPD. Actual flow is between 50,000-71,000 GPD. Effluent is discharged to unlined percolation ponds.

Palm Shadows WWTP

The WWTP was closed² on October 1, 2011.

Staff concludes that Far West has adequate treatment capacity to serve the existing customer base and reasonable growth.

Staff recommends that Far West be required to provide separate wastewater descriptions (Lift Stations, Force Mains, Manholes, Cleanouts, Collection Mains, and Service Laterals) for each of its Wastewater Treatment Plants in future Commission Annual Reports, beginning with the 2013 Annual Report filed in 2014.

C. WASTEWATER FLOW

Based on the information provided by the Company, wastewater flow for the test year 2011 is presented in Figure 3. Customers experienced a high monthly average wastewater flow of approximately 128 GPD per connection and a low monthly average wastewater flow of approximately 70 GPD per connection.

D. GROWTH

In December 2004, Far West had approximately 7,200 active customers. In December 2011, the Company had 7,463 active customers. The Company estimates that the customer base will grow at approximately 100 to 400 new customers per year for next five years.

E. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (“ADEQ”) COMPLIANCE

The Company’s WWTPs are not in compliance with ADEQ regulations. On June 22, 2010, ADEQ issued a Consent Judgment against Far West.

In October 2012, ADEQ issued Compliance Status Reports regarding Far West’s WWTPs. ADEQ reported that while not in compliance with the Consent Judgment, ADEQ is encouraged by the progress that Far West has made. ADEQ anticipates amending its Consent Judgment with Far West to reflect dates that will align with the progress Far West has made to date.

² No longer treating sewage at this site.

Staff recommends that any increase in rates and charges approved in this proceeding shall not become effective until the Company submits documentation from ADEQ that the Far West's WWTPs are in compliance with ADEQ's Consent Judgment as it may be amended.

F. ACC COMPLIANCE

A check with the Utilities Division Compliance Section indicates that there is one delinquent item for Far West (ACC Compliance Section Email dated January 18, 2013).

In Decision No. 72594, the Commission ordered Far West to pay the amount of \$154,180 to Spartan Homes & Construction, Inc. within 90 days after the effective date of this Decision unless the parties reach an agreement as to a later payment.

Far West has made a partial payment of \$47,682, as docketed with the Commission on July 31, 2012, however, the remaining amount is still unpaid at this time.

G. DEPRECIATION RATES

In the prior rate case, the Company adopted Staff's typical and customary depreciation rates for wastewater system plant. These rates are presented in Table G-1 and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.

Table G-1. Wastewater Depreciation Rates

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
354	Structures & Improvements	30	3.33
355	Power Generation Equipment	20	5.00
360	Collection Sewers – Force	50	2.0
361	Collection Sewers- Gravity	50	2.0
362	Special Collecting Structures	50	2.0
363	Services to Customers	50	2.0
364	Flow Measuring Devices	10	10.0
365	Flow Measuring Installations	10	10.00
366	Reuse Services	50	2.00
367	Reuse Meters & Meter Installations	12	8.33
370	Receiving Wells	30	3.33
371	Pumping Equipment	8	12.50
374	Reuse Distribution Reservoirs	40	2.50
375	Reuse Transmission & Distribution System	40	2.50
380	Treatment & Disposal Equipment	20	5.0
381	Plant Sewers	20	5.0
382	Outfall Sewer Lines	30	3.33
389	Other Plant & Miscellaneous Equipment	15	6.67
390	Office Furniture & Equipment	15	6.67
390.1	Computers & Software	5	20.0
391	Transportation Equipment	5	20.0
392	Stores Equipment	25	4.0
393	Tools, Shop & Garage Equipment	20	5.0
394	Laboratory Equipment	10	10.0
395	Power Operated Equipment	20	5.0
396	Communication Equipment	10	10.0
397	Miscellaneous Equipment	10	10.0
398	Other Tangible Plant	----	----

NOTE: Acct. 398, Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.

H. Company Testing Expenses

The Company reported a total testing expense of \$147,025 during the test year, the Company provided invoices and other documents to support this amount. Staff has reviewed the information provided by the Company and recommends the Company's reported annual testing expense of \$147,025 be used for purposes of this application.

Table A. Testing Cost

2011 Monthly Testing Expense

Month	Monthly Testing Expense
Jan 2011	11,996.25
Feb 2011	10,181.90
Mar 2011	9,865.12
Apr 2011	13,151.30
May 2011	11,467.00
Jun 2011	11,218.77
Jul 2011	14,304.20
Aug 2011	14,213.00
Sept 2011	13,422.12
Oct 2011	12,012.40
Nov 2011	13,202.00
Oct 2011	11,991.15
Total Testing Expense	\$147,025.21

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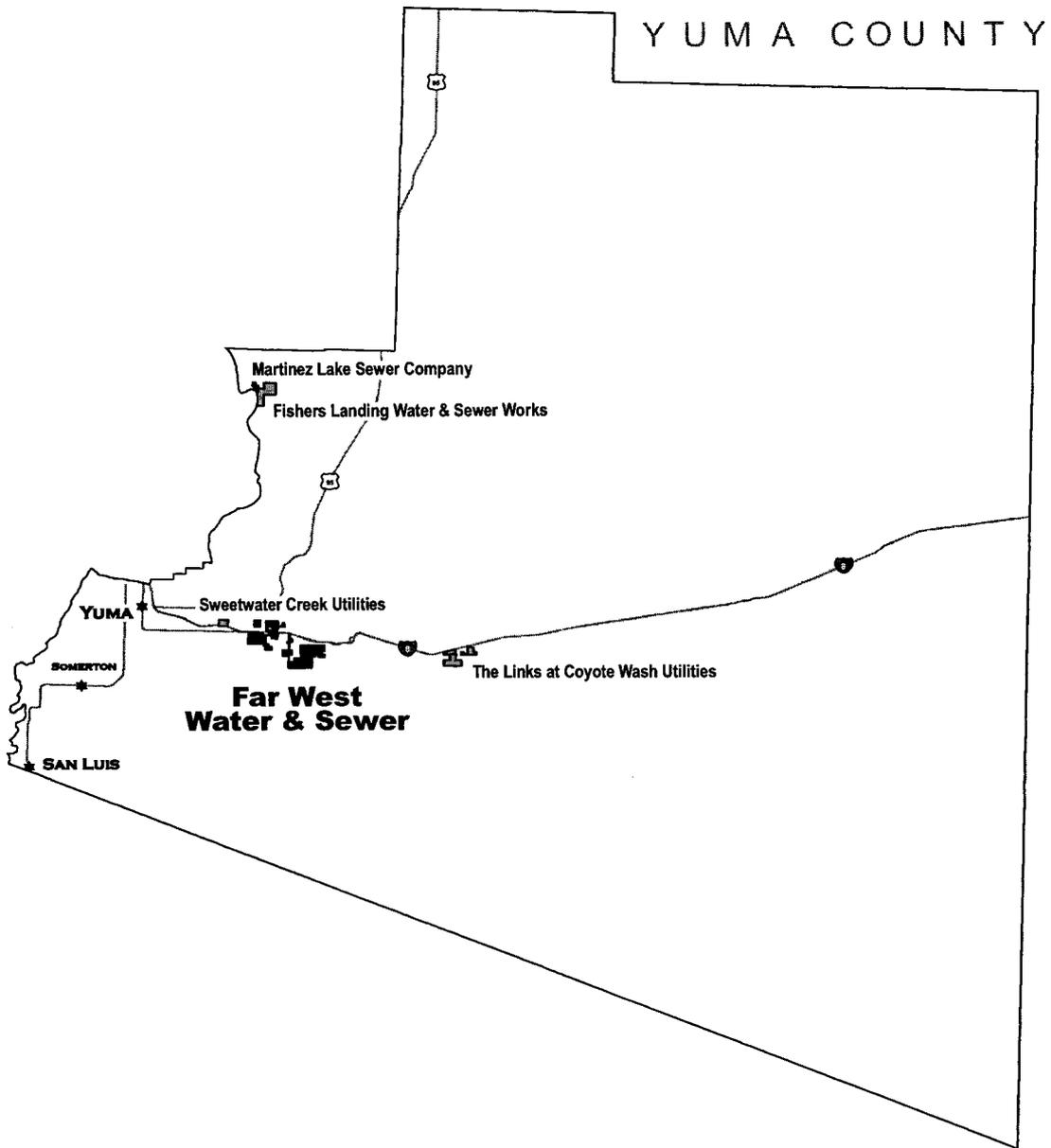


Figure 1. County Map

**FIGURE 1
COUNTY MAP**

Far West Water & Sewer, Inc.
Docket No. WS-03478A-12-0307

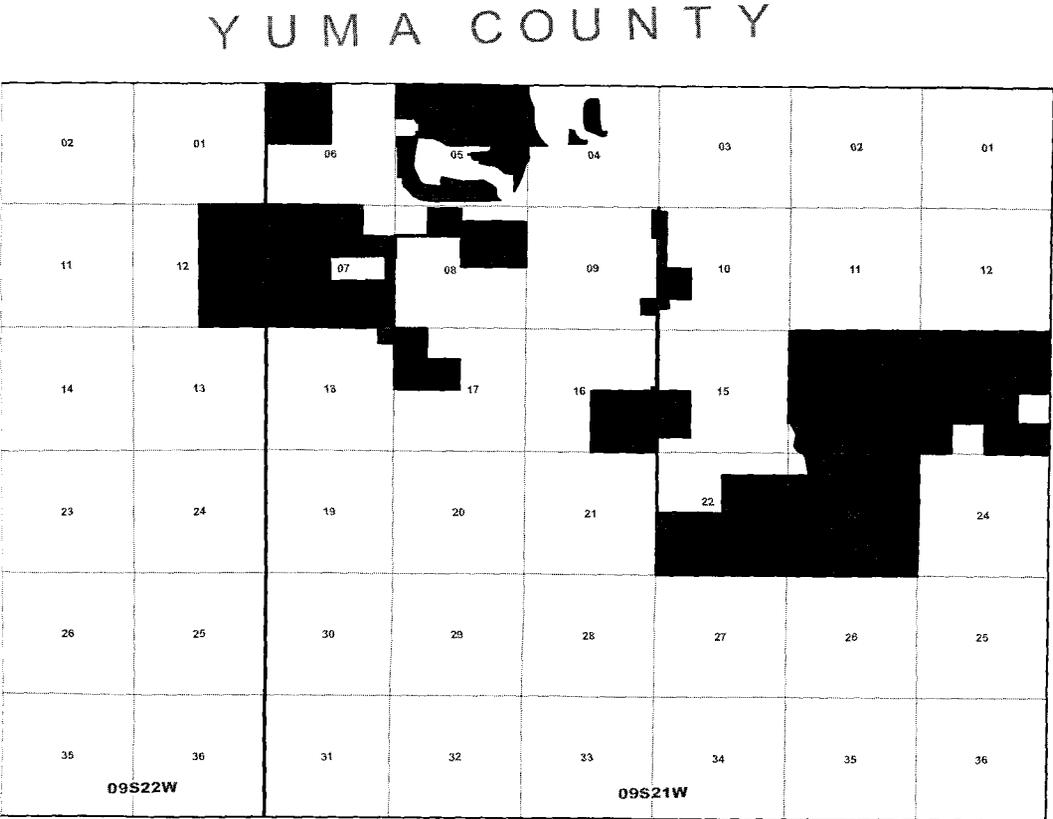


Figure 2. Certificated Area

Figure 2
CERTIFICATED AREA

YEAR	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
Shops	9,172	4,483	4,937	4,555	4,882	2,136	1,867	1,971	4,403	3,332	1,583	8,935	76,900
Section 14	2,646	2,669	4,951	3,174	2,189	1,731	1,383	1,443	4,413	11,237	11,332	11,634	86,003
Del Oro	5,620	3,333	5,546	5,172	6,207	4,417	4,174	4,427	4,207	3,936	4,410	5,493	56,766
Del Rey	1,263	6,477	9,481	9,121	6,378	6,338	6,314	6,495	6,710	6,273	1,313	1,644	6,025
Royale	1,131	9,127	11,127	11,112	10,883	10,871	10,867	10,876	10,865	10,862	10,879	10,868	11,150
Seasons	2,177	19,346	2,592	1,873	1,692	1,694	1,597	1,688	1,654	1,784	2,078	2,21	22,533
Palm Shadows	7,397	7,344	7,352	6,005	5,400	4,431	5,001	5,204	5,156	4,800	6,000	6	31,578
TOTAL	38,441	28,211	29,186	23,230	19,668	16,259	15,396	16,121	13,351	21,713	37,236	29,499	

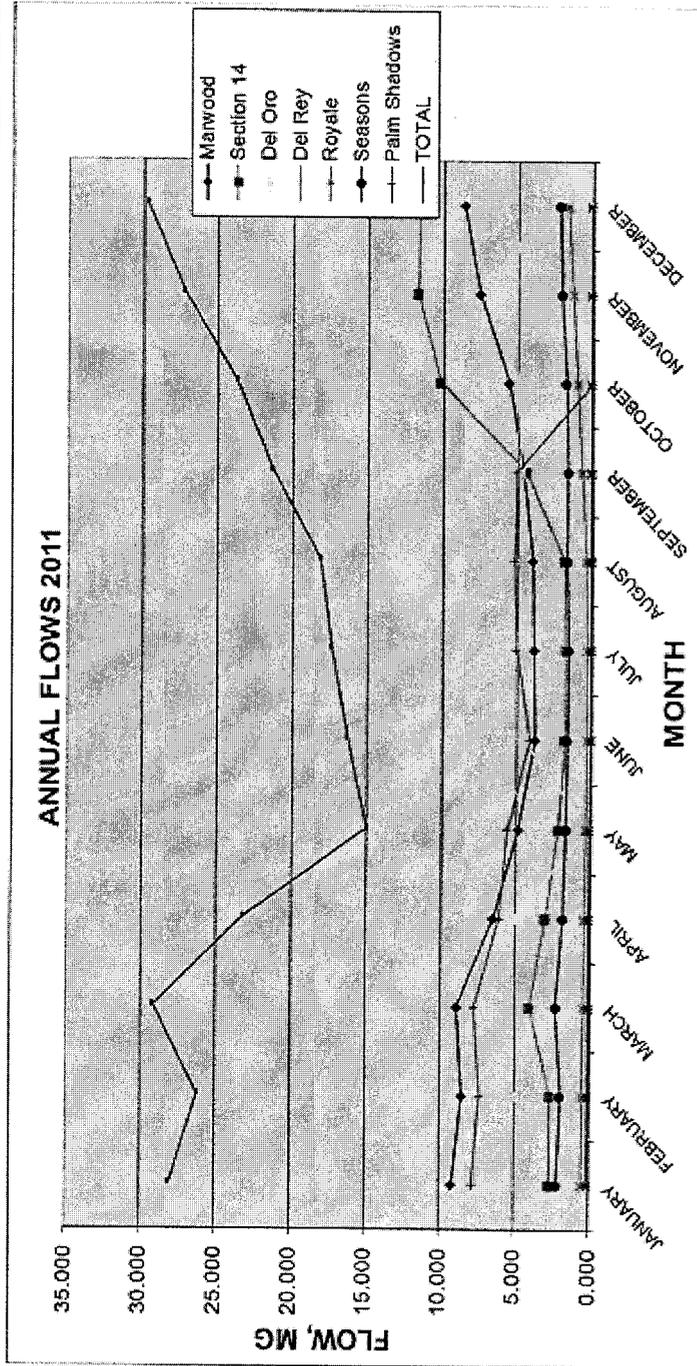


FIGURE 3 WASTEWATER FLOW

FIGURE 3

WASTEWATER FLOW

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. WS-03478A-12-0307
FAR WEST WATER & SEWER, INC., AN)
ARIZONA CORPORATION, FOR A)
DETERMINATION OF THE CURRENT FAIR)
VALUE OF ITS UTILITY PLANT AND)
PROPERTY AND FOR INCREASES IN ITS)
WASTEWATER RATES AND CHARGES)
BASED THEREON FOR UTILITY SERVICE.____)

DIRECT
TESTIMONY
OF

JOHN A. CASSIDY

PUBLIC UTILITIES ANALYST
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

FEBRUARY 13, 2013

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**EXECUTIVE SUMMARY
FAR WEST 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 Far West Water & Sewer, Inc. (“Company”) for this proceeding consisting of 72.3 percent debt and 27.7 percent equity.

Cost of Equity – Staff recommends that the Commission adopt a 10.0 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 8.8 percent for the DCF and 8.5 percent for the CAPM. Staff’s recommended ROE includes an upward economic assessment adjustment of 60 basis points and an upward financial risk adjustment of 70 basis points.

Cost of Debt – Staff recommends that the Commission adopt a 6.4 percent cost of debt for the Company.

Overall Rate of Return – Staff recommends that the Commission adopt a 7.4 percent overall rate of return.

Company’s Cost of Capital Testimony – The Company’s cost of capital witness, Mr. Ray L. Jones, proposes a 7.4 percent overall rate of return based on a capital structure composed of 79.55 percent long-term debt, 6.46 percent short-term debt and 13.98 percent equity, and long-term debt cost of 6.9 percent, short-term debt cost of 8.073 percent and cost of equity of 10.0 percent. While Staff’s cost of equity and overall rate of return are the same as the Company’s, different methodologies were used to derive those recommendations. The Company’s cost of equity estimate is based on the average of six recent Commission decisions for water utilities and that method is less useful than Staff’s market based cost of equity methodology.

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 an MBA degree with an
17 emphasis in Finance from Arizona State University. While pursuing my MBA degree, I
18 was inducted into Beta Gamma Sigma, the National Business Honor Society. I have
19 passed the CPA exam, but opted not to pursue certification. I have worked professionally
20 as a librarian, financial consultant and tax auditor, and, as a former Commission
21 employee, served as Staff's cost of capital witness in rate case evidentiary proceedings.

22
23 **Q. What is the scope of your testimony in this case?**

24 A. My testimony provides Staff's recommended capital structure, return on equity ("ROE")
25 and overall rate of return ("ROR") for establishing the revenue requirements for Far West
26 ("Far West" or "Company") pending water and wastewater applications.

1 **Q. Please provide a brief description of Far West.**

2 A. Far West is a public service corporation engaged in providing water and wastewater utility
3 services in certain unincorporated portions of Yuma County, Arizona pursuant to
4 certificates of convenience and necessity granted by the Arizona Corporation
5 Commission. During the Test Year, Far West served approximately 7,067 residential
6 wastewater service connections, 44 commercial wastewater customers and 4 recreational
7 vehicle parks containing 713 spaces. Far West also served approximately 15,500 metered
8 water customers in the test year. In this docket, the Company is seeking an increase only
9 in the rates to be charged its wastewater customers.

10
11 *Summary of Testimony and Recommendations*

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

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

23
24 **Q. Have you prepared any exhibits to accompany your testimony?**

25 A. Yes. I prepared ten schedules (JAC-1 to JAC-10) that support Staff's cost of capital
26 analysis.

1 **Q. What is Staff's recommended rate of return for Far West?**

2 A. Staff recommends a 7.4 percent overall ROR, as shown in Schedule JAC-1. Staff's ROR
3 recommendation is based on cost of equity estimates for the sample companies of 8.8
4 percent from the discounted cash flow method ("DCF") and 8.5 percent from the capital
5 asset pricing method ("CAPM"). Staff recommends adoption of a 60 basis point upward
6 economic assessment adjustment and a 70 basis point upward financial risk adjustment,
7 resulting in a 7.4 percent overall ROR.

8

9 *Far West's Proposed Overall Rate of Return*

10 **Q. Briefly summarize Far West's proposed capital structure, cost of debt, ROE and**
11 **overall ROR for this proceeding.**

12 A. Table 1 summarizes the Company's proposed capital structure, cost of debt, ROE and
13 overall ROR in this proceeding:

14

15

Table 1

	Weight	Cost	Weighted Cost
Long-term Debt	79.55%	6.90%	5.489%
Short-term Debt	6.46%	8.073%	0.522%
Common Equity	13.98%	10.00%	<u>1.398%</u>
Cost of Capital/ROR			7.409%

16

17 Far West is proposing an overall rate of return of 7.4 percent.

18

19 **II. THE WEIGHTED AVERAGE COST OF CAPITAL**

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

21 A. The cost of capital is the opportunity cost of choosing one investment over others with
22 equivalent risk. In other words, the cost of capital is the return that stakeholders expect

1 for investing their financial resources in a determined business venture over another
2 business venture.

3
4 **Q. What is the overall cost of capital?**

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

9
10 **Q. How is the WACC calculated?**

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

13 Equation 1.

14
15
$$\text{WACC} = \sum_{i=1}^n W_i * r_i$$

16

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

19
20 **Q. Can you provide an example demonstrating application of Equation 1?**

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

25
$$\text{WACC} = (60\% * 6.0\%) + (40\% * 10.5\%)$$

26
$$\text{WACC} = 3.60\% + 4.20\%$$

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WACC = 7.80%

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

III. CAPITAL STRUCTURE

Background

Q. Please explain the capital structure concept.

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

Q. How is the capital structure expressed?

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

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

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%

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

Far West's Capital Structure

Q. What capital structure does Far West propose?

A. The Company proposes an adjusted test-year end capital structure composed of 79.55 percent long-term debt, 6.46 percent short-term debt and 13.98 percent common equity.

Q. What adjustments were made by the Company in its proposed adjusted test-year end capital structure?

A. For purposes of its proposed capital structure, Far West made several adjustments to common equity, the detail of which appears on lines 11-20 of the Company's Schedule D-1. As shown in the equity adjustment detail of Schedule D-1, Far West's beginning equity balance is shown to be \$6,136,135, with the ending adjusted common equity figure proposed by the Company being \$3,748,573.¹

¹ The adjustments made to the beginning common equity balance shown in Schedule D-1 include adjustments for Plant in Service (negative \$3,229,531), Accumulated Depreciation (\$522,158), CIAC (\$713,313), and accumulated amortization of CIAC (negative \$393,502).

1 **Q. Does the beginning common equity balance of \$6,136,135 presented in Schedule D-1**
2 **reflect the Company's overall consolidated equity position, inclusive of both Far**
3 **West's Water and Sewer Divisions?**

4 A. No. The \$6,136,135 beginning common equity figure purportedly represents total
5 stockholders' equity attributable only to Far West's Sewer Division, and is not reflective
6 of the Company's overall consolidated equity position.²

7
8 **Q. For purposes of this proceeding, does Staff feel that it is appropriate to utilize equity**
9 **attributable only to Far West's Sewer Division in the Company's capital structure?**

10 A. No. While it is true that the Company is seeking a rate increase only for its Sewer
11 Division in this docket, the appropriate common equity balance to be used when setting
12 rates is the Company's overall consolidated stockholders' equity position, inclusive of
13 both its Water and Sewer Divisions. As noted in the Company's filing, most of Far
14 West's wastewater customers are also Far West water customers,³ which means that
15 equity capital used to fund the Company's water plant has also been used to fund its
16 wastewater plant, and vice versa. Thus, as a starting point from which to make
17 adjustments to the Company's equity, it is appropriate to use Far West's test-year end
18 consolidated stockholders' equity.

² Support for this number is found in the Comparative Balance Sheet for the Company's Sewer Division, presented in Schedule E-1, Page 1.

³ Direct Testimony of Ray L. Jones, p. 3, lines 19-20.

1 **Q. On a consolidated basis, what was Far West's total Stockholders' Equity as of the**
2 **December 31, 2011 test-year end?**

3 A. As shown in the consolidated Comparative Balance Sheet presented in the Company's
4 Schedule E-1, Page 3, as of December 31, 2011 Far West had total Stockholders' Equity
5 of \$7,565,963.⁴

6
7 **Q. You mentioned earlier that the Company had made equity adjustments to Far**
8 **West's Sewer Division Stockholders' Equity. Does Staff agree with the equity**
9 **adjustments made by the Company?**

10 A. In part, yes, but the Company's adjustments to equity require two reversing adjustments.
11 First, included in the Company's \$3,229,531 Plant in Service adjustment reducing equity
12 is a \$2,165,201 adjustment relating to costs associated with Section 14, Phase II plant
13 excluded from rate base.⁵ Although Far West's Section 14, Phase II plant is not currently
14 used and useful, the Company's adjustment to equity (Adjustment 1.7) is unwarranted, as
15 it effectively serves as a permanent write-off of Far West's investment in that plant.
16 Accordingly, a reversing adjustment is necessary to increase equity by that \$2,165,201
17 amount. Second, included in the Company's \$522,158 Accumulated Depreciation
18 adjustment increasing equity is a \$57,690 adjustment relating to accumulated depreciation
19 with this same Section 14, Phase II plant excluded from rate base.⁶ Because the Section
20 14, Phase II plant is not currently used and useful, this cost is not recoverable in the future,
21 thereby rendering the Company's adjustment to equity (Company Adjustment 2.5) to be
22 inappropriate. Accordingly, a reversing adjustment is necessary to reduce equity by
23 \$57,690.

⁴ As presented in Schedule E-1, Page 3, Far West's consolidated Stockholders' Equity is comprised of \$900,000 in Common Stock Issued, \$9,430,633 of Paid in Capital, and Retained Earnings (Accumulated Deficit) of negative \$2,764,670.

⁵ See Company Schedule B-2, Page 2, Plant in Service Adjustment 1.7.

⁶ See Company Schedule B-2, Page 3, Accumulated Depreciation Adjustment 2.5.

1 **Q. How does Far West's proposed capital structure compare to capital structures of**
2 **publicly-traded water utilities?**

3 A. Schedule JAC-4 shows the capital structures of six publicly-traded water companies
4 ("sample water companies" or "sample water utilities") as of December 2011. The
5 average capital structure for the sample water utilities is comprised of approximately 51.6
6 percent debt and 48.4 percent equity.

7

8 *Staff's Capital Structure*

9 **Q. What is Staff's recommended capital structure for Far West?**

10 A. Staff recommends a capital structure composed of 72.3 percent debt and 27.7 percent
11 equity.

12

13 **Q. Why does Staff's recommended capital structure differ significantly from that**
14 **proposed by the Company?**

15 A. As noted earlier, the Company proposed an adjusted test-year end capital structure, with
16 all adjustments being made to common equity. However, there were problems associated
17 with the Company's determination of its actual test-year end equity position, and Staff's
18 recommended capital structure serves to rectify those problems. The common equity
19 component of Staff's recommended capital is reflective of Far West's consolidated
20 Stockholders' Equity position as of the December 31, 2011 test year end, inclusive of both
21 the adjustments to equity made by the Company as well as the necessary reversing
22 adjustments noted above. Additionally, Staff has converted the Company's \$1,942,448
23 Zenon / Liberation Capital ("Zenon") long-term debt to paid in capital, resulting in an
24 increase to the common equity component of Staff's recommended capital structure in that
25 amount. The details of Staff's adjustments to Far West's common equity are presented in
26 Schedule JAC-10.

1 **Q. Why did Staff convert the Company's proposed Zenon debt to paid in capital?**

2 A. Staff made this adjustment for several reasons. First, the Zenon debt was never formally
3 approved by the Commission. Although the Company did file a Request for Declaratory
4 Ruling with the Commission,⁷ seeking either a declaratory ruling that the execution of a
5 promissory note to secure payment of a preexisting obligation did not require financing
6 approval, or in the alternative, financing approval of the note, no action was taken in
7 regard to the Company's filing. Second, the promissory note included with the
8 Company's filing is dated March 31, 2011, approximately one year prior to the filing of
9 the Company's application for a declaratory ruling. This suggests that the Company
10 formally incurred the Zenon obligation prior to seeking authorization for the associated
11 financing. Lastly, the Company never provided notice to its customers of the debt
12 obligation incurred. For these reasons, Staff considers the debt to be paid in capital.

13
14 **Q. Does Staff's recommended capital structure include the short-term debt included in
15 the Company's proposed capital structure?**

16 A. No, it does not. Staff has provisionally excluded short-term debt from its recommended
17 capital structure, pending additional discovery. Staff regrets the need to do so, but will
18 send out data requests to the Company relating to the issue of short-term debt in order to
19 address the issue in Surrebuttal testimony.

⁷ Docket No. WS-03478A-12-0085, filed March 5, 2012.

1 **IV. COST OF DEBT**

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

3 A. As shown in Schedule D-2, the Company proposes an overall weighted cost of debt of
4 6.988 percent. This weighted cost of debt includes the Company's proposed long-term
5 debt, having a cost of 6.90 percent, and the Company's proposed short-term debt, having a
6 cost of 8.073 percent. As noted, Staff has questions concerning Far West's short-term
7 debt, and will address the issue in Surrebuttal pending additional discovery.

8
9 **V. RETURN ON EQUITY**

10 *Background*

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

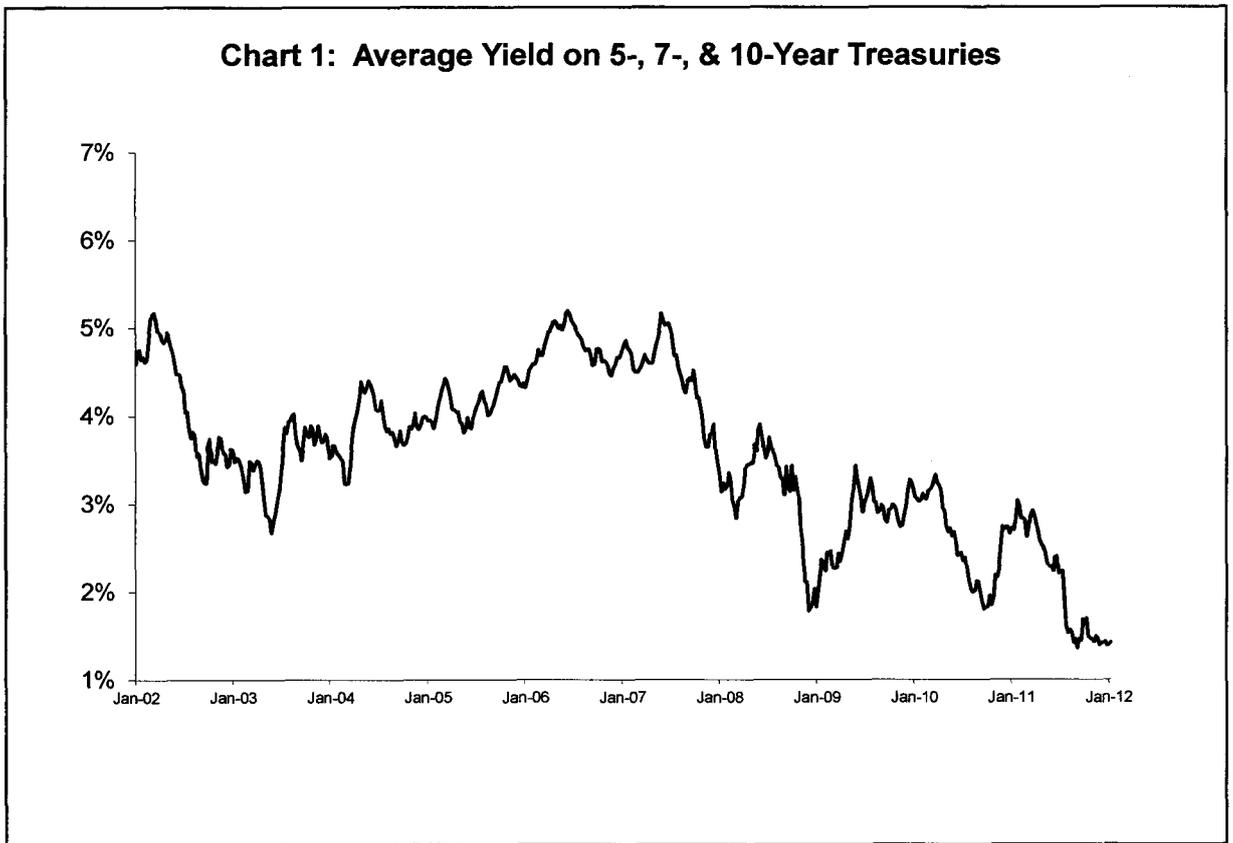
12 A. The cost of equity is the rate of return that investors expect to earn on their investment in a
13 business entity given its risk. In other words, the cost of equity to the entity is the
14 investors' expected rate of return on other investments of similar risk. As investors have a
15 wide selection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

17
18 **Q. Is there a correlation between interest rates and the cost of equity?**

19 A. Yes, there is a positive correlation between interest rates and the cost of equity, as the two
20 tend to move in the same direction. This relationship is reflected in the CAPM formula.
21 The CAPM is a market-based model employed by Staff for estimating the cost of equity.
22 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 18, 2002, to
4 January 27, 2012.



20 Chart 1 shows that intermediate-term interest rates trended downward from 2002 to mid-
21 2003, trended upward through early-2008, trended downward through early-2009, trended
22 upward through mid-2010, trended downward through late 2010, trended upward to mid-
23 2011, and are currently trending down from the existing, relatively low rates.

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

2 A. U.S. Treasury rates from December 1961 - December 2011 are shown in Chart 2. The
3 chart shows that interest rates trended upward through the mid-1980s and have trended
4 downward over the last 25 years.



17
18
19
Source: Federal Reserve

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 25 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)⁸ 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 greater 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

⁸ 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 return; 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 Far West's financial risk exposure compare to that of Staff's sample group**
2 **of water companies?**

3 A. JAC-4 shows the capital structures of the six sample water companies as of December 31,
4 2011, and Far West's adjusted capital structure as of that same test-year end date. As
5 shown, the sample water utilities were capitalized with approximately 51.6 percent debt
6 and 48.4 percent equity, while Far West's capital structure consists of 72.3 percent debt
7 and 27.7 percent equity. Thus, relative to Staff's sample group of companies, Far West's
8 capital structure is more highly leveraged than the average sample water utility;
9 accordingly, it has greater exposure to financial risk.

10

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

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

13

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

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

17

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

19 A. No. Investors who hold diversified portfolios can eliminate firm-specific risk and,
20 consequently, do not require any additional return. Since investors who choose to be less
21 than fully-diversified must compete in the market with fully-diversified investors, the
22 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 Far West?**

4 A. No. Since Far West is not a publicly-traded company, Staff is unable to directly estimate
5 its cost of equity due to the lack of firm-specific market data. Instead, Staff estimated the
6 Company's cost of equity indirectly, using a representative sample group of publicly
7 traded water utilities as a proxy, taking the average of the sample group to reduce the
8 sample error resulting from random fluctuations in the market at the time the information
9 is gathered.

10
11 **Q. What companies did Staff select as proxies or comparables for Far West?**

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 Far West's cost of equity?**

18 A. Staff used two market-based models to estimate the cost of equity for Far West: 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 December 26, 2012, as reported by *MSN Money*.

Q. Why did Staff use the December 26, 2012, 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"),⁹ earnings-per-share ("EPS")¹⁰
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, 2003-2012.¹¹ As shown in
20 Schedule JAC-5, the average historical DPS growth rate for the sample was 3.4 percent.

21

⁹ Derived from information provided by *Value Line*.

¹⁰ Derived from information provided by *Value Line*.

¹¹ Staff updated its 10-year historical dividend growth calculation to cover the period, 2003-2012, as the annual dividend paid by each sample company in 2012 is known and measureable.

1 **Q. How did Staff estimate projected DPS growth?**

2 A. Staff calculated an average of the projected DPS growth rates for the sample water utilities
3 from *Value Line* through the period, 2015-2017. The average projected DPS growth rate
4 is 3.8 percent, as shown in Schedule JAC-5.

5
6 **Q. How did Staff estimate historical EPS growth rate?**

7 Staff estimated historical EPS growth by calculating a compound annual EPS growth rate
8 for each of its sample companies over the 10-year period, 2002-2011.¹² As shown in
9 Schedule JAC-5, the average historical EPS growth rate for the sample was 4.2 percent.

10

11 **Q. How did Staff estimate projected EPS growth?**

12 A. Staff calculated an average of the projected EPS growth rates for the sample water utilities
13 from *Value Line* through the period, 2015-2017. The average projected EPS growth rate
14 is 6.2 percent, as shown in Schedule JAC-5.

15

16 **Q. How does Staff calculate its historical and projected sustainable growth rates?**

17 A. Historical and projected sustainable growth rates are calculated by adding their respective
18 retention growth rate terms (br) to their respective stock financing growth rate terms (vs),
19 as shown in Schedule JAC-6.

20

21 **Q. What is retention growth?**

22 A. Retention growth is the growth in dividends due to the retention of earnings. The
23 retention growth concept is based on the theory that dividend growth cannot be achieved
24 unless the company retains and reinvests some of its earnings. The retention growth is
25 used in Staff's calculation of sustainable growth shown in Schedule JAC-6.

¹² The 10-year historical EPS growth calculation covers the period, 2002-2011, as the 2012 annual EPS number for each sample company has yet to be announced.

1 **Q. What is the formula for the retention growth rate?**

2 A. The retention growth rate is the product of the retention ratio and the book/accounting
3 return on equity. The retention growth rate formula is:

4

Equation 3 :

$$\text{Retention Growth Rate} = br$$

where : b = the retention ratio (1 – dividend payout ratio)

r = the accounting/book return on common equity

5

6 **Q. How did Staff calculate the average historical retention growth rate (br) for the**
7 **sample water utilities?**

8 A. Staff calculated the mean of the 10-year average historical retention rate for each sample
9 company over the period, 2002-2011. As shown in Schedule JAC-6, the historical
10 average retention (br) growth rate for the sample is 2.9 percent.

11

12 **Q. How did Staff estimate its projected retention growth rate (br) for the sample water**
13 **utilities?**

14 A. Staff used the retention growth projections for the sample water utilities for the period,
15 2015-2017, from *Value Line*. As shown in Schedule JAC-6, the projected average
16 retention growth rate for the sample companies is 4.3 percent.

17

18 **Q. When can retention growth provide a reasonable estimate of future dividend**
19 **growth?**

20 A. The retention growth rate is a reasonable estimate of future dividend growth when the
21 retention ratio is reasonably constant and the entity's market price to book value ("market-
22 to-book ratio") is expected to be 1.0. The average retention ratio has been reasonably

1 constant in recent years. However, the market-to-book ratio for the sample water utilities
2 is 2.0, notably higher than 1.0, as shown in Schedule JAC-7.

3
4 **Q. Is there any financial implication of a market-to-book ratio greater than 1.0?**

5 A. Yes. A market-to-book ratio greater than 1.0 implies that investors expect an entity to
6 earn an accounting/book return on its equity that exceeds its cost of equity. The
7 relationship between required returns and expected cash flows is readily observed in the
8 fixed securities market. For example, assume an entity contemplating issuance of bonds
9 with a face value of \$10 million at either 6 percent or 8 percent and, thus, paying annual
10 interest of \$600,000 or \$800,000, respectively. Regardless of investors' required return on
11 similar bonds, investors will be willing to pay more for the bonds if issued at 8 percent
12 than if the bonds are issued at 6 percent. For example, if the current interest rate required
13 by investors is 6 percent, then they would bid \$10 million for the 6 percent bonds and
14 more than \$10 million for the 8 percent bonds. Similarly, if equity investors require a 9
15 percent return and expect an entity to earn accounting/book returns of 13 percent, the
16 market will bid up the price of the entity's stock to provide the required return of 9
17 percent.

18
19 **Q. How has Staff generally recognized a market-to-book ratio exceeding 1.0 in its cost of
20 equity analyses in recent years?**

21 A. Staff has assumed that investors expect the market-to-book ratio to remain greater than
22 1.0. Given that assumption, Staff has added a stock financing growth rate (vs) term to the
23 retention ratio (br) term to calculate its historical and projected sustainable growth rates.

24

1 **Q. Do the historical and projected sustainable growth rates Staff uses to develop its**
2 **DCF cost of equity in this case continue to include a stock financing growth rate**
3 **term?**

4 A. Yes.

6 **Q. What is stock financing growth?**

7 A. Stock financing growth is the growth in an entity's dividends due to the sale of stock by
8 that entity. Stock financing growth is a concept derived by Myron Gordon and discussed
9 in his book *The Cost of Capital to a Public Utility*.¹³ Stock financing growth is the
10 product of the fraction of the funds raised from the sale of stock that accrues to existing
11 shareholders (v) and the fraction resulting from dividing the funds raised from the sale of
12 stock by the existing common equity (s).

14 **Q. What is the mathematical formula for the stock financing growth rate?**

15 A. The mathematical formula for stock financing growth is:

17 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

¹³ Gordon, Myron J. *The Cost of Capital to a Public Utility*. MSU Public Utilities Studies, Michigan, 1974. pp 31-35.

1 **Q. How is the variable v presented above calculated?**

2 A. Variable v is calculated as follows:

Equation 5:

$$v = 1 - \left(\frac{\text{book value}}{\text{market value}} \right)$$

3

4 For example, assume that a share of stock has a \$30 book value and is selling for \$45.

5 Then, to find the value of v , the formula is applied:

$$v = 1 - \left(\frac{30}{45} \right)$$

6

In this example, v is equal to 0.33.

7

8 **Q. How is the variable s presented above calculated?**

9 A. Variable s is calculated as follows:

10

Equation 6:

12

$$s = \frac{\text{Funds raised from the issuance of stock}}{\text{Total existing common equity before the issuance}}$$

13

14

For example, assume that an entity has \$150 in existing equity, and it sells \$30 of stock.

15

Then, to find the value of s , the formula is applied:

$$s = \left(\frac{30}{150} \right)$$

16

In this example, s is equal to 20.0 percent.

1 **Q. What is the vs term when the market-to-book ratio is equal to 1.0?**

2 A. A market-to-book ratio of 1.0 reflects that investors expect an entity to earn a
3 book/accounting return on their equity investment equal to the cost of equity. When the
4 market-to-book ratio is equal to 1.0, none of the funds raised from the sale of stock by the
5 entity accrues to the benefit of existing shareholders, i.e., the term v is equal to zero (0.0).
6 Consequently, the vs term is also equal to zero (0.0). When stock financing growth is
7 zero, dividend growth depends solely on the br term.

8
9 **Q. What is the effect of the vs term when the market-to-book ratio is greater than 1.0?**

10 A. A market-to-book ratio greater than 1.0 reflects that investors expect an entity to earn a
11 book/accounting return on their equity investment greater than the cost of equity.
12 Equation 5 shows that, when the market-to-book ratio is greater than 1.0, the v term is also
13 greater than zero. The excess by which new shares are issued and sold over book value
14 per share of outstanding stock is a contribution that accrues to existing stockholders in the
15 form of a higher book value. The resulting higher book value leads to higher expected
16 earnings and dividends. Continued growth from the vs term is dependent upon the
17 continued issuance and sale of additional shares at a price that exceeds book value per
18 share.

19

1 **Q. What *vs* estimate did Staff calculate from its analysis of the sample water utilities?**

2 A. Staff estimated an average stock financing growth of 1.9 percent for the sample water
3 utilities, as shown in Schedule JAC-6.

4
5 **Q. What would occur if an entity had a market-to-book ratio greater than 1.0 as a result
6 of investors expecting earnings to exceed its cost of equity, and subsequently
7 experienced newly-authorized rates equal only to its cost of equity?**

8 A. *Ceteris paribus*, holding all other factors constant, one would expect market forces to
9 move the company's stock price lower, closer to a market-to-book ratio of 1.0, to reflect
10 investor expectations of reduced expected future cash flows.

11
12 **Q. If the average market-to-book ratio of Staff's sample water utilities were to fall to 1.0
13 due to authorized ROEs equaling their cost of equity, would inclusion of the *vs* term
14 be necessary to Staff's constant-growth DCF analysis?**

15 A. No. As discussed above, when the market-to-book ratio is equal to 1.0, none of the funds
16 raised from the sale of stock by the entity accrues to the benefit of existing shareholders
17 because the *v* term equals to zero and, consequently, the *vs* term also equals zero. When
18 the market-to-book ratio equals 1.0, dividend growth depends solely on the *br* term.
19 Staff's inclusion of the *vs* term assumes that the market-to-book ratio continues to exceed
20 1.0 and that the water utilities will continue to issue and sell stock at prices above book
21 value with the effect of benefitting existing shareholders.

22
23 **Q. What are Staff's historical and projected sustainable growth rates?**

24 A. Staff's estimated historical sustainable growth rate is 4.8 percent based on an analysis of
25 earnings retention for the sample water companies. Staff's projected sustainable growth

1 rate is 6.4 percent based on retention growth projected by *Value Line*. Schedule JAC-6
2 presents Staff's estimates of the sustainable growth rate.

3
4 **Q. What is Staff's expected infinite annual growth rate in dividends?**

5 A. Staff's expected dividend growth rate (g) is 4.8 percent, which is the average of historical
6 and projected DPS, EPS, and sustainable growth estimates. Staff's calculation of the
7 expected infinite annual growth rate in dividends is shown in Schedule JAC-8.

8
9 **Q. What is Staff's constant-growth DCF estimate for the sample utilities?**

10 A. Staff's constant-growth DCF estimate is 8.0 percent, as shown in Schedule JAC-3.

11
12 *The Multi-Stage DCF*

13 **Q. Why did Staff implement the multi-stage DCF model to estimate Far West's cost of**
14 **equity?**

15 A. Staff generally uses the multi-stage DCF model to consider the assumption that dividends
16 may not grow at a constant rate. The multi-stage DCF uses two stages of growth, the first
17 stage (near-term) having a four-year duration, followed by the second stage (long-term) of
18 constant growth.

19

1 **Q. What is the mathematical formula for the multi-stage DCF?**

2 A. The multi-stage DCF formula is shown in the following equation:
3

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

4

5 **Q. What steps did Staff take to implement its multi-stage DCF cost of equity model?**

6 A. First, Staff projected future dividends for each of the sample water utilities using near-
7 term and long-term growth rates. Second, Staff calculated the rate (cost of equity) which
8 equates the present value of the forecasted dividends to the current stock price for each of
9 the sample water utilities. Lastly, Staff calculated an overall sample average cost of
10 equity estimate.

11

12 **Q. How did Staff calculate near-term (stage-1) growth?**

13 A. The stage-1 growth rate is based on *Value Lines*'s projected dividends for the next twelve
14 months, when available, and on the average dividend growth (g) rate of 4.8 percent,
15 calculated in Staff's constant DCF analysis for the remainder of the stage.

1 **Q. How did Staff estimate long-term (stage-2) growth?**

2 A. Staff calculated the stage-2 growth rate using the arithmetic mean rate of growth in Gross
3 Domestic Product (“GDP”) from 1929 to 2011.¹⁴ Using the GDP growth rate assumes
4 that the water utility industry is expected to grow at the same rate as the overall economy.

5
6 **Q. What is the historical GDP growth rate that Staff used to estimate stage-2 growth?**

7 A. Staff used 6.5 percent to estimate the stage-2 growth rate.

8
9 **Q. What is Staff’s multi-stage DCF estimate for the sample utilities?**

10 A. Staff’s multi-stage DCF estimate is 9.6 percent, as shown in Schedule JAC-3.

11
12 **Q. What is Staff’s overall DCF estimate for the sample utilities?**

13 A. Staff’s overall DCF estimate is 8.8 percent. Staff calculated the overall DCF estimate by
14 averaging the constant growth DCF (8.0%) and multi-stage DCF (9.6%) estimates, as
15 shown in Schedule JAC-3.

16
17 *Capital Asset Pricing Model*

18 **Q. Please describe the CAPM.**

19 A. The CAPM is used to determine the prices of securities in a competitive market. The
20 CAPM model describes the relationship between a security’s investment risk and its
21 market rate of return. Under the CAPM, an investor requires the expected return of a
22 security to equal the rate on a risk-free security plus a risk premium. If the investor’s
23 expected return does not meet or beat the required return, the investment is not
24 economically justified. The model also assumes that investors will sufficiently diversify

¹⁴ www.bea.doc.gov.

1 their investments to eliminate any non-systematic or unique risk.¹⁵ In 1990, Professors
2 Harry Markowitz, William Sharpe, and Merton Miller earned the Nobel Prize in
3 Economic Sciences for their contribution to the development of the CAPM.
4

5 **Q. Did Staff use the same sample water utilities in its CAPM and DCF cost of equity**
6 **estimation analyses?**

7 A. Yes. Staff's CAPM cost of equity estimation analysis uses the same sample water
8 companies as its DCF cost of equity estimation analysis.
9

10 **Q. What is the mathematical formula for the CAPM?**

11 A. The mathematical formula for the CAPM is:
12

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

13
14 The equation shows that the expected return (K) on a risky asset is equal to the risk-free
15 interest rate (R_f) plus the product of the market risk premium ($R_m - R_f$) multiplied by beta
16 (β) where beta represents the riskiness of the investment relative to the market.
17

¹⁵ 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 **Q. What is the risk-free rate?**

2 A. The risk-free rate is the rate of return of an investment free of default risk.

3
4 **Q. What does Staff use as surrogates to represent estimations of the risk-free rates of
5 interest in its historical and current market risk premium CAPM methods?**

6 A. Staff uses separate parameters as surrogates for the estimations of the risk-free rates of
7 interest for the historical market risk premium CAPM cost of equity estimation and the
8 current market risk premium CAPM cost of equity estimation. Staff uses the average of
9 three (5-, 7-, and 10-year) intermediate-term U.S. Treasury securities' spot rates in its
10 historical market risk premium CAPM cost of equity estimation, and the 30-year U.S.
11 Treasury bond spot rate in its current market risk premium CAPM cost of equity
12 estimation. Rates on U.S. Treasuries are largely verifiable and readily available.

13
14 **Q. What does beta measure?**

15 A. Beta is a measure of a security's price volatility, or systematic risk, relative to the market
16 as a whole. Since systematic risk cannot be diversified away, it is the only risk that is
17 relevant when estimating a security's required return. Using a baseline market beta
18 coefficient of 1.0, a security having a beta value less than 1.0 will be less volatile (i.e., less
19 risky) than the market. A security with a beta value greater than 1.0 will be more volatile
20 (i.e., more risky) than the market.

21
22 **Q. How did Staff estimate Far West's beta?**

23 A. Staff used the average of the *Value Line* betas for the sample water utilities as a proxy for
24 the Company's beta. Schedule JAC-7 shows the *Value Line* betas for each of the sample
25 water utilities. The 0.71 average beta coefficient for the sample water utilities is Staff's

1 estimated beta value for Far West. A security with a beta value of 0.71 has less volatility
2 than the market.

3
4 **Q. What is the market risk premium ($R_m - R_f$)?**

5 **A.** The market risk premium is the expected return on the market, minus the risk-free rate.
6 Simplified, it is the return an investor expects as compensation for market risk.

7
8 **Q. What did Staff use for the market risk premium?**

9 **A.** Staff uses separate calculations for the market risk premium in its historical and current
10 market risk premium CAPM methods.

11
12 **Q. How did Staff calculate an estimate for the market risk premium in its historical
13 market risk premium CAPM method?**

14 **A.** Staff uses the intermediate-term government bond income returns published in the
15 Ibbotson Associates' *Stocks, Bonds, Bills, and Inflation 2012 Yearbook* to calculate the
16 historical market risk premium. Ibbotson Associates calculates the historical risk
17 premium by averaging the historical arithmetic differences between the S&P 500 and the
18 intermediate-term government bond income returns for the period 1926-2011. Staff's
19 historical market risk premium estimate is 7.1 percent, as shown in Schedule JAC-3.

20
21 **Q. How did Staff calculate an estimate for the market risk premium in its current
22 market risk premium CAPM method?**

23 **A.** Staff solves equation 8 above to arrive at a market risk premium using a DCF-derived
24 expected return (K) of 13.88 (2.3 + 11.58¹⁶) percent using the expected dividend yield (2.3
25 percent over the next twelve months) and the annual per share growth rate (11.58 percent)

¹⁶ The three to five year price appreciation is 55%. $1.55^{0.25} - 1 = 11.58\%$.

1 that *Value Line* projects for all dividend-paying stocks under its review¹⁷ along with the
2 current long-term risk-free rate (30-year Treasury note at 2.94 percent) and the market's
3 average beta of 1.0. Staff calculated the current market risk premium as 10.94 percent,¹⁸
4 as shown in Schedule JAC-3.

5
6 **Q. What is the result of Staff's historical market risk premium CAPM and current
7 market risk premium CAPM cost of equity estimations for the sample utilities?**

8 A. Staff's cost of equity estimates are 6.3 percent using the historical market risk premium
9 CAPM and 10.7 percent using the current market risk premium CAPM.

10
11 **Q. What is Staff's overall CAPM estimate for the sample utilities?**

12 A. Staff's overall CAPM cost of equity estimate is 8.5 percent which is the average of the
13 historical market risk premium CAPM (6.3 percent) and the current market risk premium
14 CAPM (10.7 percent) estimates, as shown in Schedule JAC-3.

15
16 **VII. SUMMARY OF STAFF'S COST OF EQUITY ANALYSIS**

17 **Q. What is the result of Staff's constant-growth DCF analysis to estimate the cost of
18 equity for the sample water utilities?**

19 A. Schedule JAC-3 shows the result of Staff's constant-growth DCF analysis. The result of
20 Staff's constant-growth DCF analysis is as follows:

21
22
$$k = 3.2\% + 4.8\%$$

23
24
$$k = 8.0\%$$

25

¹⁷ December 28, 2012 issue date.

¹⁸ 13.88% = 2.94% + (1) (10.94%).

1 Staff's constant-growth DCF estimate of the cost of equity for the sample water utilities is
2 8.0 percent.

3
4 **Q. What is the result of Staff's multi-stage DCF analysis to estimate of the cost of equity
5 for the sample utilities?**

6 A. Schedule JAC-9 shows the result of Staff's multi-stage DCF analysis. The result of
7 Staff's multi-stage DCF analysis is:

8

9	Company	Equity Cost Estimate (k)
10		
11	American States Water	9.1%
12	California Water	10.0%
13	Aqua America	9.2%
14	Connecticut Water	9.7%
15	Middlesex Water	10.3%
16	SJW Corp	<u>9.2%</u>
17		
18	Average	9.6%

19
20 Staff's multi-stage DCF estimate of the cost of equity for the sample water utilities is 9.6
21 percent.

22
23 **Q. What is Staff's overall DCF estimate of the cost of equity for the sample utilities?**

24 A. Staff's overall DCF estimate of the cost of equity for the sample utilities is 8.8 percent.
25 Staff calculated an overall DCF cost of equity estimate by averaging Staff's constant
26 growth DCF (8.0 percent) and Staff's multi-stage DCF (9.6 percent) estimates, as shown
27 in Schedule JAC-3.

28

1 **Q. What is the result of Staff's historical market risk premium CAPM analysis to**
2 **estimate of the cost of equity for the sample utilities?**

3 A. Schedule JAC-3 shows the result of Staff's CAPM analysis using the historical risk
4 premium estimate. The result is as follows:

5
6 $k = 1.2\% + 0.71 * 7.1\%$

7 $k = 6.3\%$

8
9 Staff's CAPM estimate (using the historical market risk premium) of the cost of equity to
10 the sample water utilities is 6.3 percent.

11
12 **Q. What is the result of Staff's current market risk premium CAPM analysis to**
13 **estimate the cost of equity for the sample utilities?**

14 A. Schedule JAC-3 shows the result of Staff's CAPM analysis using the current market risk
15 premium estimate. The result is:

16 $k = 2.9\% + 0.71 * 10.9\%$

17 $k = 10.7\%$

18
19 Staff's CAPM estimate (using the current market risk premium) of the cost of equity to the
20 sample water utilities is 10.7 percent.

21
22 **Q. What is Staff's overall CAPM estimate of the cost of equity for the sample utilities?**

23 A. Staff's overall CAPM estimate for the sample utilities is 8.5 percent. Staff's overall
24 CAPM estimate is the average of the historical market risk premium CAPM (6.3 percent)
25 and the current market risk premium CAPM (10.7 percent) estimates, as shown in
26 Schedule JAC-3.

1 **Q. Please summarize the results of Staff's cost of equity analysis for the sample utilities.**

2 A. The following table shows the results of Staff's cost of equity analysis:

3
4 **Table 2**

Method	Estimate
Average DCF Estimate	8.8%
Average CAPM Estimate	8.5%
Overall Average	8.7%

5
6 Staff's average estimate of the cost of equity to the sample water utilities is 8.7 percent.

7
8 **VIII. FINAL COST OF EQUITY ESTIMATES FOR FAR WEST**

9 **Q. Please compare Far West's capital structure to that of the six sample water**
10 **companies.**

11 A. The average capital structure for the sample water utilities is composed of 48.4 percent
12 common equity and 51.6 percent debt, as shown in Schedule JAC-4. Far West's capital
13 structure is composed of 27.7 percent common equity and 72.3 percent debt. In this case,
14 since Rio Rico's capital structure is more highly leveraged than that of the average sample
15 water utility, its stockholders bear more financial risk than do common stock shareholders
16 of the sample water utility companies.

17
18 **Q. Is Staff recommending a financial risk adjustment to recognize the relatively higher**
19 **financial risk for Far West compared to the sample companies?**

20 A. Yes. Staff recommends an upward financial risk adjustment for Far West of 70 basis
21 points.
22

1 **Q. Does Staff have established criteria for determining when to apply a downward**
2 **financial risk adjustment?**

3 A. Yes. Staff normally applies two criteria in assessing whether application of a downward
4 financial risk adjustment is appropriate. The first consideration is whether the utility has a
5 reasonably economical capital structure. Staff considers a capital structure composed of
6 no more than 60 percent equity to meet this condition. If equity exceeds 60 percent, as it
7 does for Far West, Staff considers application of a downward financial risk adjustment to
8 be appropriate if the utility meets the second criteria. The second condition is whether the
9 utility has access to equity capital markets. Because Far West does not have access to the
10 equity capital markets; accordingly, Staff recommends an upward financial risk
11 adjustment to Far West's cost of equity.

12
13 **Q. Did Staff consider factors other than the results of its technical models in its cost of**
14 **equity analysis?**

15 A. Yes. In consideration of the relatively uncertain status of the economy and the market that
16 currently exists, Staff is proposing an Economic Assessment Adjustment to the cost of
17 equity. In this case, Staff recommends a 60 basis point (0.6 percent) upward Economic
18 Assessment Adjustment, as shown in Schedule JAC-3.

19
20 **Q. What is Staff's ROE estimate for Far West?**

21 A. Staff determined an ROE estimate of 8.7 percent for Far West based on cost of equity
22 estimates for the sample companies of 8.8 percent from the DCF and 8.5 percent from the
23 CAPM. Staff recommends adoption of a 70 basis point upward financial risk adjustment
24 and a 60 basis point upward Economic Assessment Adjustment resulting in a 10.0 percent
25 Staff-recommended ROE, as shown in Schedule JAC-3.

26

1 **IX. RATE OF RETURN RECOMMENDATION**

2 **Q. What overall rate of return did Staff determine for Far West?**

3 A. Staff determined a 7.4 percent ROR for the Company, as shown in Schedule JAC-1 and
4 the following table:

5
6 **Table 3**

7

	Weight	Cost	Weighted Cost
Long-term Debt	72.3%	6.4%	4.6%
Common Equity	27.7%	10.0%	<u>2.8%</u>
Overall ROR			<u>7.4%</u>

8
9 **X. STAFF RESPONSE TO COMPANY'S COST OF CAPITAL WITNESS MR. RAY**
10 **L. JONES**

11 **Q. Does Mr. Jones provide market based support for his recommended 10.0 percent**
12 **cost of equity?**

13 A. No. Mr. Jones' testimony was not supported by any market based analysis of the cost of
14 equity. Instead, his proposed 10.0 percent cost of equity is the average of the returns
15 authorized by the Commission in six recent water utility rate cases.¹⁹ Since the cost of
16 equity varies over time, a current market based cost of equity methodology is preferable to
17 the Company's method. Thus, while the Company's propose cost of equity is the same as
18 Staff's, the method used by Staff is preferable.

19

¹⁹ Direct Testimony of Ray L. Jones, pp. 16-17.

1 **XI. CONCLUSION**

2 **Q. Please summarize Staff's recommendations.**

3 A. Staff recommends that the Commission adopt a 7.4 percent overall rate of return for the
4 Company based on a capital structure composed of 72.3 percent debt and 27.7 percent
5 equity, Staff's 8.7 percent cost of equity estimate, Staff's 60 basis point (0.6 percent)
6 upward economic assessment adjustment and Staff's 70 basis point (0.7 percent) upward
7 financial risk adjustment.

8

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

10 A. Yes, it does.

Far West Water & Sewer, Inc. Cost of Capital Calculation
 Capital Structure
 And Weighted Average Cost of Capital
 Staff Recommended and Company Proposed

[A] [B] [C] [D]

<u>Description</u>	<u>Weight (%)</u>	<u>Cost</u>	<u>Weighted Cost</u>
Staff Recommended Structure			
Debt	72.3%	6.4%	4.6%
Common Equity	27.7%	10.0%	<u>2.8%</u>
Weighted Average Cost of Capital			7.4%
Company Proposed Structure			
Debt	86.0%	7.0%	6.0%
Common Equity	14.0%	10.0%	<u>1.4%</u>
Weighted Average Cost of Capital			7.4%

[D] : [B] x [C]

Supporting Schedules: JAC-3 and JAC-4.

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Far West Water & Sewer, Inc. Cost of Capital Calculation
Final Cost of Equity Estimates
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]			
DCF Method		$\frac{D_1}{P_0}$ ¹	+	g ²	=	k	
Constant Growth DCF Estimate		3.2%	+	4.8%	=	8.0%	
Multi-Stage DCF Estimate					=	<u>9.6%</u>	
Average DCF Estimate						8.8%	
CAPM Method	Rf	+	β ⁵	x	(Rp)	=	k
Historical Market Risk Premium ³	1.2%	+	0.71	x	7.1% ⁶	=	6.3%
Current Market Risk Premium ⁴	2.9%	+	0.71	x	10.9% ⁷	=	<u>10.7%</u>
Average CAPM Estimate							8.5%
				Average of Overall Estimates			8.7%
				Economic Assessment Adjustment			<u>0.6%</u>
				Sub-Total			9.3%
				Financial risk adjustment			<u>0.7%</u>
				Total			10.0%

1 MSN Money and Value Line

2 Schedule JAC-8

3 Risk-free rate (Rf) for 5, 7, and 10 year Treasury rates from the U.S. Treasury Department at www.ustreas.gov

4 Risk-free rate (Rf) for 30 Year Treasury bond rate from the U.S. Treasury Department at www.ustreas.gov

5 Value Line

6 Historical Market Risk Premium (Rp) calculated from Ibbotson Associates S&P 500 2012 Yearbook data

7 Testimony

Far West Water & Sewer, Inc. 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	46.0%	54.0%	100.0%
California Water	53.3%	46.7%	100.0%
Aqua America	53.9%	46.1%	100.0%
Connecticut Water	57.1%	42.9%	100.0%
Middlesex Water	43.3%	56.7%	100.0%
SJW Corp	<u>55.7%</u>	<u>44.3%</u>	<u>100.0%</u>
 Average Sample Water Utilities	 51.6%	 48.4%	 100.0%
 Far West - Actual Capital Structure	 72.3%	 27.7%	 100.0%

Source:

Sample Water Companies from Value Line

Far West Water & Sewer, Inc. Cost of Capital Calculation
Growth in Earnings and Dividends
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]
Company	Dividends Per Share 2003 to 2012 <u>DPS^{1,2}</u>	Dividends Per Share Projected <u>DPS^{1,3}</u>	Earnings Per Share 2002 to 2011 <u>EPS¹</u>	Earnings Per Share Projected <u>EPS¹</u>
American States Water	3.9%	5.9%	5.1%	4.7%
California Water	1.2%	3.4%	6.2%	8.6%
Aqua America	7.7%	4.5%	7.3%	5.6%
Connecticut Water	1.7%	No Projection	0.4%	No Projection
Middlesex Water	1.7%	1.9%	2.4%	8.3%
SJW Corp	<u>4.4%</u>	<u>3.0%</u>	<u>3.7%</u>	<u>4.0%</u>
Average Sample Water Utilities	3.4%	3.8%	4.2%	6.2%

¹ Value Line

² Value Line – Ten-year historical dividend growth updated from 2003-2012 as it is known and measurable.

³ Value Line – Projected DPS growth covers the four-year period, 2012-2016.

Far West Water & Sewer, Inc. Cost of Capital Calculation
Sustainable Growth
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]
Company	Retention Growth 2002 to 2011 <u>br</u>	Retention Growth Projected <u>br</u>	Stock Financing Growth <u>vs</u>	Sustainable Growth 2002 to 2011 <u>br + vs</u>	Sustainable Growth Projected <u>br + vs</u>
American States Water	3.6%	5.3%	2.4%	6.0%	7.7%
California Water	2.2%	4.8%	2.0%	4.3%	6.8%
Aqua America	4.4%	5.2%	2.2%	6.7%	7.5%
Connecticut Water	2.2%	No Projection	1.0%	3.2%	No Projection
Middlesex Water	1.3%	3.3%	3.6%	4.9%	6.9%
SJW Corp	<u>3.7%</u>	<u>2.9%</u>	<u>0.1%</u>	<u>3.8%</u>	<u>3.0%</u>
Average Sample Water Utilities	2.9%	4.3%	1.9%	4.8%	6.4%

[B]: Value Line

[C]: Value Line

[D]: Value Line and MSN Money

[E]: [B]+[D]

[F]: [C]+[D]

Far West Water & Sewer, Inc. Cost of Capital Calculation
 Selected Financial Data of Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]	[G]
Company	Symbol	Spot Price 12/26/2012	Book Value	Mkt To Book	Value Line Beta β	Raw Beta β_{raw}
American States Water	AWR	47.43	22.19	2.1	0.70	0.52
California Water	CWT	18.26	11.36	1.6	0.65	0.45
Aqua America	WTR	25.17	9.46	2.7	0.60	0.37
Connecticut Water	CTWS	29.94	13.64	2.2	0.75	0.60
Middlesex Water	MSEX	19.22	11.94	1.6	0.70	0.52
SJW Corp	SJW	26.30	15.31	1.7	0.85	0.75
Average				2.0	0.71	0.53

[C]: Msn Money

[D]: Value Line

[E]: [C] / [D]

[F]: Value Line

[G]: $(-0.35 + [F]) / 0.67$

Far West Water & Sewer, Inc. Cost of Capital Calculation
Calculation of Expected Infinite Annual Growth in Dividends
Sample Water Utilities

[A]	[B]
<u>Description</u>	g
DPS Growth - Historical ¹	3.4%
DPS Growth - Projected ¹	3.8%
EPS Growth - Historical ¹	4.2%
EPS Growth - Projected ¹	6.2%
Sustainable Growth - Historical ²	4.8%
<u>Sustainable Growth - Projected²</u>	<u>6.4%</u>
Average	4.8%

¹ Schedule JAC-5

² Schedule JAC-6

Far West Water & Sewer, Inc. Cost of Capital Calculation
Multi-Stage DCF Estimates
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]	[H]	[I]
<u>Company</u>	Current Mkt. Price (P_0) ¹ 12/26/2012	Projected Dividends ² (Stage 1 growth) (D_t)				Stage 2 growth ³ (g_n)	Equity Cost Estimate (K) ⁴
		d_1	d_2	d_3	d_4		
American States Water	47.4	1.30	1.36	1.42	1.49	6.5%	9.1%
California Water	18.3	0.66	0.69	0.73	0.76	6.5%	10.0%
Aqua America	25.2	0.69	0.73	0.76	0.80	6.5%	9.2%
Connecticut Water	29.9	0.98	1.03	1.08	1.13	6.5%	9.7%
Middlesex Water	19.2	0.75	0.79	0.83	0.86	6.5%	10.3%
SJW Corp				0.82	0.86	6.5%	9.2%

$$P_0 = \sum_{t=1}^n \frac{D_t}{(1+K)^t} + \frac{D_n(1+g_n)}{K-g_n} \left[\frac{1}{(1+K)} \right]^n$$

Average **9.6%**

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

Far West Water & Sewer, Inc. Cost of Capital Calculation				
Capitalization				
	<u>Interest Rate</u>	<u>Annual Interest</u>	<u>Amount Outstanding as of 12/31/2011</u>	<u>Percentage of Capital Structure</u>
Long-Term Debt				
	6.50%	\$ 175,175	\$ 2,695,000	
	6.375%	1,360,425	21,340,000	
Long-Term Debt		\$ 1,535,600	\$ 24,035,000	72.26%
Short-Term Debt		-	-	0.00%
Total Debt	6.39%	\$ 1,535,600	\$ 24,035,000	72.26%
Common Equity				
Common Shares Outstanding				
Paid in Capital				
Retained Earnings				
Total Common Equity			\$ 9,228,360	27.74%
Total Capitalization			\$ 33,263,360	100.00%

Staff Adjustments to Equity:

Stockholders' Equity -- Consolidated

Common Stock	\$ 900,000	
Paid in Capital	9,430,633	
Retained Earnings -- Water and Sewer	(2,764,670)	
Total Stockholders' Equity -- Consolidated		\$ 7,565,963

Company Equity Adjustments

Plant in Service	\$ (3,229,531)	
Accumulated Depreciation	522,158	
Contributions in Aid of Construction (CIAC)	713,313	
Accumulated Amortization of CIAC	(393,502)	
Company Equity Adjustments		\$ (2,387,562)

Reversing Adjustments to Equity made by Staff

Section 14 Phase II Costs Excluded	\$ 2,165,201	
Less: A/D on Section 14 Phase II Costs Excluded	(57,690)	
Net Staff Reversing Adjustments		\$ 2,107,511

Staff Debt Conversion Adjustment

Add: Zenon/Liberation Capital Debt Converted to Equity		\$ 1,942,448
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Total Common Equity, as Adjusted by Staff

	\$ 9,228,360
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Sources:

Stockholders' Equity -- Consolidated: RLJ Schedule E-1, p. 3, "Comparative Balance Sheet" (Water and Sewer Consolidated)
Company Equity Adjustments: RLJ Schedule D-1, lines 14-18.

Reversing Adjustments to Equity made by Staff: RLJ Schedule B-2, pages 2 and 3 (Equity Adjustments as shown on line 38).

Staff Debt Conversion Adjustment: RLJ Schedule D-2 (Long-Term Debt, as shown on lines 7-8).