



BEFORE THE ARIZONA CORPORATION COMMISSION

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COMMISSIONERS
JEFF HATCH-MILLER -- Chairman
WILLIAM A. MUNDELL
MARC SPITZER
MIKE GLEASON
KRISTIN K. MAYES

Arizona Corporation Commission

DOCKETED

MAY 11 2005

DOCKETED BY [Signature]

IN THE MATTER OF THE APPLICATION OF
VALLEY UTILITIES WATER COMPANY, INC.
FOR RATE ADJUSTMENTS IN ITS WATER
RATES AND FINANCING AUTHORIZATION.

Docket No. W-01412A-04-0736
W-01412A-04-0849

STAFF'S NOTICE OF FILING
DIRECT TESTIMONY

Staff of the Arizona Corporation Commission hereby files the Direct Testimony of Dennis R. Rogers of the Utilities Division and Marlin Scott, Jr. of the Engineering Division in the above-referenced matter.

RESPECTFULLY SUBMITTED this 11th day of May, 2005.

[Signature]

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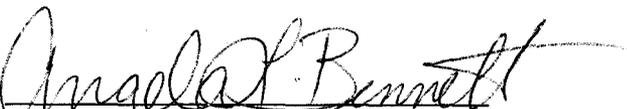
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**DIRECT
TESTIMONY
OF
DENNIS R. ROGERS
MARLIN SCOTT, JR.**

DOCKET NOS. W-01412A-04-0736 & W-01412A-04-0849

**IN THE MATTER OF THE APPLICATION OF
VALLEY UTILITIES WATER COMPANY, INC.
FOR RATE ADJUSTMENTS IN ITS WATER
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MAY 11, 2005

ROGERS

BEFORE THE ARIZONA CORPORATION COMMISSION

JEFF HATCH-MILLER
Chairman
WILLIAM A. MUNDELL
Commissioner
MARC SPITZER
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KRISTIN K. MAYES
Commissioner

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. W-01412A-04-0736
VALLEY UTILITIES WATER COMPANY INC.)
FOR RATE ADJUSTMENTS IN ITS WATER)
RATES AND FINANCING AUTHORIZATION) DOCKET NO. W-01412A-04-0849

DIRECT
TESTIMONY
OF
DENNIS R. ROGERS
PUBLIC UTILITIES ANALYST IV
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

MAY 11, 2005

TABLE OF CONTENTS

	<u>Page</u>
Introduction.....	1
Background.....	2
Consumer Service.....	3
Engineering.....	3
Order of Testimony.....	4
Valley Utilities Water Company, Inc.....	6
Summary Of Proposed Revenues.....	6
Rate Base.....	9
Fair Value Rate Base.....	9
Rate Base Summary.....	9
Rate Base Adjustment No. 2 – Working Capital Allowance.....	10
Operating Income.....	11
Operating Income Summary.....	11
Operating Income Adjustment No. 1 – Repairs and Maintenance; Lawn Services.....	11
Operating Income Adjustment No. 2 – Water Testing Expense.....	12
Operating Income Adjustment No. 3 – Transportation Expense.....	12
Operating Income Adjustment No. 4A – Miscellaneous Expense: Recruitment Fees.....	13
Operating Income Adjustment No. 4B – Miscellaneous Expense: Director’s.....	14
Operating Income Adjustment No. 4C – Miscellaneous Expenses: Telephone Expense.....	14
Operating Income Adjustment No. 4D – Miscellaneous Expense: Company Sign.....	15
Operating Income Adjustment No. 4E – Miscellaneous Expense: High School Fund Raiser.....	15
Operating Income Adjustment No. 4F – Miscellaneous Expense: Gym Expenses.....	16
Operating Income Adjustment No. 5 – Depreciation Expense.....	16
Operating Income Adjustment No. 6 – Property Tax Expense.....	17
Operating Income Adjustment No. 7 – Income Tax Expense.....	18
Rate Design.....	18
Recommendations.....	20

SCHEDULES

RATE APPLICATION

Revenue Requirement.....	DRR-1
Gross Revenue Conversion Factor.....	DRR-2
Rate Base.....	DRR-3
Summary of Rate Base Adjustments.....	DRR-4
Rate Base Adjustment No. 1 – Office Furniture and Equipment.....	DRR-5
Rate Base Adjustment No. 2 – Cash Working Capital Allowance.....	DRR-6
Income Statement – Test Year and Staff Recommended.....	DRR-7
Summary of Operating Income Adjustments – Test Year.....	DRR-8
Operating Income Adjustment No. 1 – Repairs and Maintenance.....	DRR-9
Operating Income Adjustment No. 2 – Water Testing Expense.....	DRR-10

Operating Income Adjustment No. 3 – Transportation Expense.....	DRR-11
Operating Income Adjustment No. 4A thru 4F – Miscellaneous Expenses	DRR-12
Operating Income Adjustment No. 5 – Depreciation Expense.....	DRR-13
Operating Income Adjustment No. 6 – Property Tax Expense	DRR-14
Operating Income Adjustment No. 7 – Income Tax.....	DRR-15
Rate Design.....	DRR-16
Minimum Monthly Charges and Commodity Rates.....	DRR-17
Typical Bill Analysis Average and Median Usage Costs.....	DRR-18

FINANCE APPLICATION

Financial Analysis Month 12, 2003	DRR-19
Cost of Capital Summary.....	DRR-20
Selected Financial Data Including Immediate Effects of Proposed Debt.....	DRR-21
Calculation of Incremental Revenue Required for WIFA Loan to Preserve Cash Flow	DRR-22
Selected Financial Data With Staff Recommended Arsenic Remedial Cost Recovery	DRR-23
Calculation of Staff Recommended ARCR Surcharge by Meter Size	DRR-24
Table A – Conversion Factor Table.....	DRR-25

ATTACHMENTS

Instructions to Calculate the Annual Surcharge Revenue Requirement.....	Table A- DRR
Consumer Services.....	MEMORANDUM

EXECUTIVE SUMMARY
VALLEY UTILITIES WATER COMPANY, INC.
WATER AND FINANCING APPLICATIONS
DOCKET NO. W-01412A-04-0736
DOCKET NO. W-01412A-04-0849

The direct testimony of Staff witness Dennis R. Rogers addresses the following issues:

Background - Valley Utilities Water Company, Inc. ("Valley" or "Company") is a certificated Arizona based company that provides water utility service to approximately 1,189 customers in Maricopa County, Arizona.

On October 7, 2004, Valley filed an application for a permanent rate increase for its water customers comprised of a two-step phased-in rate increase to provide for adequate operating margins to cover increased capital and operating expenditures necessitated by the Environmental Protection Agency's ("EPA") mandated arsenic reduction requirements from 50 parts per billion ("ppb") to 10 ppb by January 23, 2006. The Company states that it incurred operating income of \$13,138 during the Test Year ended December 31, 2003.

On November 26, 2004, Valley filed an application for authority to issue promissory notes and evidences of indebtedness in the original amount of up to \$1,926,100. The Company proposes to use the proceeds of the financing to purchase or construct plant and equipment necessary to treat and remove arsenic from water produced by its existing wells.

On March 17, 2005, Valley filed a motion to consolidate the proceedings for the requests for rates and debt authorization citing interrelationships between the filings. On March 23, 2005, a Procedural Order was issued by the presiding administrative law judge granting consolidation.

The Company proposes to phase-in a rate increase of \$503,453, or 60.8 percent, in two steps, increasing revenues from \$827,565 to \$1,331,018. In the first step, the Company requests a \$100,784, or 12.19 percent, increase over test year revenues. The incremental step one revenue is intended to cover the proposed WIFA financing. Step one revenues of \$928,349 would produce an operating margin of 10.0 percent, or \$92,835. The Company proposes a negative \$540,691 fair value rate base for step one. In step two, to be issued following the decision, the Company proposes an additional \$402,669 revenue increase to cover arsenic treatment operating expenses and an adjustor mechanism with an annual true-up. Step two revenue of \$1,331,018 would produce operating income of \$133,102 for a 10.7 percent rate of return on a fair value rate base of \$1,243,934.

Revenue Requirement – Since the Staff adjusted rate base is negative \$539,804, Staff recommends that the Commission authorize a 10 percent operating margin, or \$95,751. Staff's recommendation represents a \$129,946, or 15.70 percent, revenue increase from \$827,565 to \$957,511. Staff's recommended revenue exceeds the Company's proposed step one revenue by \$29,162. Staff's recommended rates would increase the typical ¾-inch residential water bill with a median usage of 7,500 gallons, from \$28.00 to \$31.76, for an increase of \$3.76 or 13.45 percent.

Financing - Staff further recommends that the Commission authorize the proposed WIFA loan in the amount of \$1,926,100 for the construction of arsenic treatment facilities.

Arsenic Remediation Surcharge Mechanism - Staff further recommends that the Commission approve an Arsenic Remediation Surcharge Mechanism ("ARSM"). The ARSM provides a framework for establishing a surcharge to service new debt and related income tax expense. The ARSM requires the Company to make a separate filing for Commission consideration before a surcharge becomes effective. The ARSM facilitates the Company securing a WIFA loan and estimates the surcharge necessary to service the loan and preserve the Company's cash flow. The ARSM is consistent with the mechanism previously authorized by the Commission in Decision No. 76163, dated August 10, 2003, for Mountain Glen Water Services, Inc. The monthly surcharge for the typical 3/4-inch customer would be approximately \$10.06.

Equity - Staff further recommends that the Company file a plan for approval by Staff to progressively increase its equity position on an annual basis until equity represents 40 percent of total capital.

1 **INTRODUCTION**

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

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

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

8 A. I am responsible for the examination and verification of financial and statistical
9 information included in utility rate applications, developing revenue requirements,
10 designing rates, preparing written reports and/or testimonies and related schedules that
11 present Staff’s recommendations to the Commission. I am also responsible for testifying
12 at formal hearings on these matters.

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

15 A. I received a Bachelor of Business Administration with an emphasis in Accounting from
16 Arizona State University.

17
18 I have participated in multiple rate, financing and other regulatory proceedings. I attended
19 the National Association of Regulatory Utility Commissioners Utilities Rate School, and
20 have attended seminars and courses in utility regulation and utility accounting and finance.

21
22 I began employment with the Commission as a utilities regulatory analyst in May 2001.
23 Prior to joining the Commission, I worked at the Department of Revenue in the Taxpayer
24 Assistance Section.

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

2 A. I am presenting Staff's analysis and recommendations regarding Valley Utilities Water
3 Company, Inc.'s ("Valley" or "Company") consolidated applications for a permanent rate
4 increase and financing approval in the areas of rate base, operating income, revenue
5 requirement, and rate design. Staff witness Mr. Marlin Scott Jr. is presenting Staff's
6 engineering analysis and recommendations. Staff member Bradley Morton was
7 responsible for the Consumer Services Report (Attachment C).

8
9 **Q. What is the basis of Staff's recommendations?**

10 A. I performed a regulatory audit of Valley's application and records. The regulatory audit
11 consisted of examining and testing financial information, accounting records, and other
12 supporting documentation and verifying that the accounting principles applied were in
13 accordance with the Commission adopted National Association of Regulatory Utility
14 Commissioners ("NARUC") Uniform System of Accounts ("USOA").

15

16 **BACKGROUND**

17 **Q. Please review the background of this application.**

18 A. Valley is a certificated Arizona-based company that provides water utility service in
19 Maricopa County, Arizona. The Company served approximately 1,189 water customers
20 during the Test Year ended December 31, 2003.

21

22 On October 7, 2004, Valley filed an application for a permanent rate increase. On
23 November 12, 2004, Staff filed a letter declaring the application sufficient. On November
24 26, 2004, Valley filed an application for the approval for the issuance of promissory
25 note(s) and other evidences of indebtedness in the original amount of up to \$1,926,100 to
26 be used for facilities required to meet the new Environmental Protection Agency's

1 ("EPA") mandated arsenic reduction from 50 parts per billion to 10 parts per billion by
2 January 2006.

3
4 On March 17, 2005, Valley filed a Motion to Consolidate the proceedings for the requests
5 for rates and debt authorization. On March 23, 2005, a Procedural Order was issued
6 granting Valley's request for consolidation.

7
8 **CONSUMER SERVICE**

9 **Q. Please provide a brief history of customer complaints, customer responses to the**
10 **proposed rate increase, the Company's corporate standing with the Corporations**
11 **Division and government impositions.**

12 **A.** Staff reviewed the Commission's records and found four complaints during the past three
13 years. 2002 – One complaint – customer didn't request a transfer of service from builder,
14 service was disconnected. Company billed after hours installation charges, which the
15 builder split with the customer. The customer was satisfied. 2003 – Zero complaints.
16 2004 – Three complaints – 1. One customer questioned high costs for mainline and arsenic
17 treatment. 2. One customer questioned meter re-read charge on his bill. 3. One customer
18 was disconnected for an insufficient funds check. The Company is in good standing with
19 Corporations Division. The Company is current on all property and sales taxes.

20
21 **ENGINEERING**

22 **Q. Is the Company meeting water quality and conservation requirements?**

23 **A.** The Company is currently delivering water that meets water quality standards required by
24 the Arizona Administrative Code, Title 18, Chapter 4. The Company is located within the
25 Arizona Department of Water Resources Phoenix Active Management Area ("AMA") and
26 is in compliance with the AMA reporting and conservation requirements.

1 **ORDER OF TESTIMONY**

2 **Q. Briefly summarize how your testimony is organized.**

3 A. My testimony is organized to first present Staff's analysis and recommendations for the
4 rate increase application followed by an analysis and recommendation concerning
5 Valley's financing applications, including a recommended Arsenic Remediation
6 Surcharge Mechanism. Following these discussions is a complete set of schedules.

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RATE INCREASE

1 **VALLEY UTILITIES WATER COMPANY, INC.**

2 **Q. Please review the background of the Valley Utilities Water Company, Inc.**

3 A. Valley's provides service to approximately 1,189 customers in Maricopa County, Arizona.
4 Its current rates were approved in Decision No. 62908, dated September 18, 2000. That
5 order authorized a revenue requirement of \$432,301 on a negative \$292,898 rate base.

6
7 **Q. What are the primary reasons stated by the Company for requesting both a
8 permanent rate increase and a financing authorization?**

9 A. The Company's application states that since its last rate case "... the Company has made
10 significant investments in plant, and various operating expenses have increased."¹
11 "Consequently, rate increases are necessary to ensure that the Company has the ability to
12 service debt related to the new arsenic treatment plant, recover arsenic treatment costs, as
13 well as opportunity to earn a fair return on the fair value of its utility plant and property
14 devoted to public service."² The Company proposes funding via the Water Infrastructure
15 Financing Authority of Arizona ("WIFA") for the necessary capital improvements.
16

17 **SUMMARY OF PROPOSED REVENUES**

18 **Q. Please summarize the Company's filings.**

19 A. The Company proposes to phase-in a rate increase of \$503,453, or 60.8 percent, in
20 two steps increasing revenues from \$827,565 to \$1,331,018. In the first step, the
21 Company requests a \$100,784, or 12.19 percent, increase over test year revenues.
22 The incremental step one revenue is intended to cover the proposed WIFA
23 financing. Step one revenues of \$928,349 would produce an operating margin of
24 10.0 percent, or \$92,835. The Company proposes a negative \$540,689 fair value
25 rate base for step one. In step two, twelve months later, the Company proposes an

¹ W-01412A-04-0736 Prefiled Testimony Thomas Bourassa, Exhibit C, page 4.

² Id. Page 4

1 additional \$402,669 revenue increase to cover arsenic treatment operating
2 expenses and an adjustor mechanism with an annual true-up. Step two revenue of
3 \$1,331,018 would produce operating income of \$133,102 for a 10.7 percent rate of
4 return on a fair value rate base of \$1,243,934.

5
6 **Q. Please summarize Staff's recommended revenue.**

7 A. Since the Staff adjusted original cost rate base is negative \$539,804, Staff recommends
8 that the Commission authorize a 10 percent operating margin, or \$95,751. A rate of return
9 calculation is not meaningful on a negative rate base. Staff's recommendation represents
10 a \$129,946, or 15.70 percent, revenue increase from \$827,565 to \$957,511.

11
12 **Q. Please summarize the rate base and operating income recommendations and**
13 **adjustments addressed in your testimony.**

14 A. My testimony addresses the following issues:

15
16 Cash Working Capital Allowance – This adjustment increases Cash Working Capital
17 Allowance by \$114. This adjustment reflects application of the formula method to Staff
18 adjusted test year expenses.

19
20 Repairs and Maintenance – This adjustment removes \$1,113 or 50 percent of the
21 Company's lawn care service to allocate the costs applicable to the business and the
22 shareholder's home.

23
24 Water Testing Costs – This adjustment increases water testing expense by \$2,415 to
25 reflect a normalized amount.

26

1 Transportation Expense – This adjustment decreases expenses by \$12,799 to remove non-
2 recurring costs due to the acquisition of a vehicle to replace the one previously leased.

3
4 Recruitment Expenses – This adjustment decreases expenses by \$4,850 to remove non-
5 recurring recruitment expenses.

6
7 Director's Fees – This adjustment decreases expenses by \$9,000 to reflect a normalized
8 amount.

9
10 Telephone Expense – This adjustment decreases telephone expenses by \$590 to reflect the
11 removal of non-business related long distance calls.

12
13 Company Sign – This reclassifies \$773 from expense to plant for the cost to purchase a
14 company sign.

15
16 High School Fund Raiser – This adjustment decreases Miscellaneous Expenses by \$250 to
17 reflect the removal of high school fund raiser activities, a cost unnecessary for the
18 provision of service.

19
20 Gym Expense – This adjustment decreases miscellaneous expenses by \$1,613 to reflect
21 removal of personal gym expenses.

22
23 Depreciation Expense – This adjustment increases depreciation expenses by \$49 to reflect
24 the reclassification of a company sign for \$773 from expense to plant in service.

25

1 Property Taxes – This adjustment increases Property Tax Expense by \$423 to reflect Staff
2 recommended revenues.

3
4 Income Tax Expense – This adjustment increases Test Year Income Tax Expense by
5 \$28,270 to reflect application of statutory state and federal income tax rates to Staff's
6 taxable income.

7
8 **RATE BASE**

9 **Fair Value Rate Base**

10 **Q. Has the Company prepared a schedule showing the elements of Reconstruction Cost**
11 **New Rate Base ("RCND")?**

12 A. No. The Company requested to waive the RCND schedule filing requirement. Therefore,
13 Staff evaluated the original cost rate base as the fair value rate base ("FVRB").

14
15 **Rate Base Summary**

16 **Q. Please summarize Staff's adjustments to the rate base shown on Schedule DRR-4.**

17 A. Staff's adjustments to the rate base resulted in a net increase of \$887, from a negative
18 \$540,691 to a negative \$539,804. This decrease reflects capitalization of an erroneously
19 recorded expense and an increase to the Cash Working Capital Allowance resulting from
20 application of the formula method to Staff's recommended operating expenses.

21
22 **Rate Base Adjustment No. 1 – Company Sign**

23 **Q. Did the Company properly record the costs it incurred to acquire a new sign for its**
24 **offices?**

25 A. No. The Company paid \$773 for a new sign for customer display in front of its offices.
26 The Company recorded the expenditure as an expense. Under the USOA, the transaction

1 should have been capitalized as plant in service. As a result, the Company's test year
2 expenses are overstated and its plant and depreciation expense are understated.

3
4 **Q. What adjustments does Staff recommend to correct the error?**

5 A. Office Furniture and Equipment should be increased by \$773 and Miscellaneous Expense
6 decreased by \$773. Depreciation Expense should increase by \$49 to recognition
7 depreciation on the capitalized cost, and Accumulated Depreciation should be adjusted to
8 reflect the addition using the half-year convention³. Staff adjustments are shown on
9 Schedules DRR-3, DRR-4, DRR-8, DRR-12 and DRR-13.

10
11 **Rate Base Adjustment No. 2 – Working Capital Allowance**

12 **Q. What is the Company proposing for Working Capital Allowance?**

13 A. Valley is proposing a Working Capital Allowance composed of \$26,800 for Supplies
14 Inventory and \$72,885 for Cash Working Capital using the formula method for a total
15 Working Capital Allowance of \$99,685.

16
17 **Q. Does Staff agree with the Company's proposed amount for a Cash Working Capital
18 Allowance?**

19 A. Staff agrees with the Company's use of the formula method to calculate a Cash Working
20 Capital; however, Staff recommends a different amount due to its different recommended
21 amounts for certain operating expenses. Staff's calculation of cash working capital
22 allowance is shown on Schedule DRR-5. Staff's calculation of cash working capital is
23 \$72,999 or \$114 more than the \$72,885 proposed by the Company.

24

³ The adjustment to Accumulated Depreciation is de minimus.

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

2 A. Staff recommends a Working Capital Allowance of \$99,799 to reflect Staff's adjustments
3 to Test Year expenses as shown on Schedule DRR-3.

4

5 **OPERATING INCOME**

6 **Operating Income Summary**

7 **Q. What are the results of Staff's analysis of Test Year revenues, expenses and**
8 **operating income?**

9 A. As shown on Schedules DRR-7 and DRR-8 Staff's analysis resulted in Test Year revenues
10 of \$827,565, expenses of \$814,662 and an operating income of \$12,903.

11

12 **Operating Income Adjustment No. 1 – Repairs and Maintenance; Lawn Services**

13 **Q. What is the Company proposing for Lawn Service Costs?**

14 A. The Company is proposing \$2,226 for Lawn Service Costs.

15

16 **Q. Does the Lawn Service expensed by the Company provide services for both the**
17 **Company and the attached private residence?**

18 A. Yes. The Company's offices are located within the shareholder's domicile. The front of
19 the house serves as a drive up for customers conducting business at the walk-up window.
20 It is appropriate that the customers pay for only that portion of the lawn service charges
21 that directly benefit that area.

22

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

24 A. Staff recommends removing one-half of the Test Year service costs resulting in a decrease
25 of \$1,113 in operating expenses as shown on Schedules DRR-8 and DRR-9

26

1 **Operating Income Adjustment No. 2 – Water Testing Expense**

2 **Q. Did Staff determine a normalized level for Water Testing Expenses?**

3 A. Yes. Since the level of required testing varies between years, water testing expense
4 should be normalized. Staff's calculation of normalized water testing expense of \$4,014 is
5 presented in Exhibit MSJ-A, Page 4 of the testimony of Staff witness Mr. Marlin Scott, Jr.

6
7 **Q. How much Water Testing Expenses did the Company incur for the Test Year?**

8 A. The Test Year Water Testing Expenses were \$1,599.

9
10 **Q. What is Staff recommending?**

11 A. Staff recommends increasing Water Testing Expenses by \$2,415, from \$1,599 to \$4,014
12 as shown on Schedules DRR-8 and DRR-10.

13
14 **Operating Income Adjustment No. 3 – Transportation Expense.**

15 **Q. Does the Company's Transportation Expense include non-arm's length transactions**
16 **between the Company and its shareholder?**

17 A. Yes. The Company's transportation expenses included charges for a leased vehicle that
18 was purchased by the shareholder and leased back to the Company.

19
20 **Q. Are the lease payments for this vehicle continuing in the future?**

21 A. No. The Company is no longer leasing this vehicle. The Company has purchased a
22 vehicle to replace the leased vehicle, and the purchased vehicle is included in rate base.

23
24 **Q. Does the Company's Transportation Expense include out-of-test year costs?**

25 A. Yes. The Company paid for a two-year registration for a vehicle during the test year and
26 has included the entire amount in test year expenses.

1 **Q. Should the registration cost for two years be included in rates?**

2 A. No. Allowing the registration for two years in cost of service overstates average cost and
3 allows the Company to double recover. The Company's accounting is inconsistent with
4 that prescribed by the National Association of Regulatory Utility Commissioners
5 ("NARUC") Uniform System of Accounts ("USOA"). The proper accounting is to accrue
6 one-twenty-fourth of the vehicle registration fee each month. For rate-making purposes an
7 annualized amount, or twelve payments, should be recognized.

8
9 This adjustment decreases expenses by \$12,799 to remove non-recurring costs due to the
10 acquisition of a truck to replace the one previously leased.

11

12 **Q. What does Staff recommend?**

13 A. Staff recommends removing these non-recurring lease payments paid to the Company's
14 shareholder and removing one-half of the registration fee for a total disallowance of
15 \$12,799 as shown on Schedule DRR-8 and DRR-11.

16

17 **Operating Income Adjustment No. 4A – Miscellaneous Expense: Recruitment Fees**

18 **Q. Did the Company incur any one-time recruitment expenses during the test year?**

19 A. Yes. The Company has provided Staff with documentation showing that it incurred
20 \$4,850 in recruitment expenses for a key employee such as air fare, meals, and moving
21 expenses during the Test Year.

22

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

24 A. Staff recommends decreasing Miscellaneous Expenses by \$4,850 for non-recurring
25 recruitment expenses during the Test Year as shown on Schedules DRR-8 and DRR-12.

26

1 **Operating Income Adjustment No. 4B – Miscellaneous Expense: Director’s**

2 **Q. What is the Company proposing for Director’s Fees?**

3 A. The Company is proposing its actual paid and recorded Test Year amount.

4
5 **Q. Were the Director’s Fees paid during the Test Year only for the Test Year services?**

6 A. No. The Company paid director’s fees in the test year as a catch up for previous years as
7 well advances for future services.

8
9 **Q. What is the proper accounting and rate-making treatment for recording expenses?**

10 A. Under the USOA expense should be recognized in the period incurred regardless of the
11 period paid, that is, accrual accounting is required. For rate-making purposes, only on-
12 going average cost should be recognized. Therefore, only the expenses incurred in the test
13 year should be recognized.

14
15 **Q. What is Staff recommending?**

16 A. Staff recommends decreasing Director Fees expenses by \$9,000, from \$12,500 to \$3,500
17 as shown on Schedules DRR-8 and DRR-12 to allow a normalized amount for Directors
18 Fees.

19
20 **Operating Income Adjustment No. 4C – Miscellaneous Expenses: Telephone Expense**

21 **Q. Did the Company record some Telephone Expenses that were not business related?**

22 A. Yes. The Company recorded some long distance employee personal calls and did not
23 propose a pro forma adjustment to remove these non-utility costs. The Company’s
24 claimed costs are inappropriate for rate-making, and, again, the Company has not followed
25 the USOA for recording transactions.

26

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

2 A. Staff recommends removing \$590 of identified long distance Telephone Expenses that
3 were not utility related as shown on Schedules DRR-8 and DRR-12.

4

5 **Operating Income Adjustment No. 4D – Miscellaneous Expense: Company Sign**

6 **Q. Did the Company properly record costs it incurred to acquire a new sign for its**
7 **offices?**

8 A. No. As previously discussed the Company expensed instead of capitalizing the \$773 cost
9 for a new sign for customer display in front of its offices. As a result, the Company's test
10 year expenses are overstated by \$773.

11

12 **Q. What is Staff recommending for Miscellaneous Expense to correct the error?**

13 A. Staff recommends decreasing Miscellaneous Expense decreased by \$773 as shown
14 Schedules DRR-8 and DRR-12.

15

16 **Operating Income Adjustment No. 4E – Miscellaneous Expense: High School Fund Raiser**

17 **Q. Did the Company include miscellaneous expenses for a high school fund raiser that it**
18 **sponsored in its revenue requirement?**

19 A. Yes. The Company's application requests recovery of \$250 for a high school fund raiser
20 that it sponsored.

21

22 **Q. Did the Company record this expense in accordance with the USOA?**

23 A. No. The Company recorded this cost in the Miscellaneous Expense account. The proper
24 account for recording this cost is Miscellaneous Nonutility Expenses. This is an expense
25 that is not necessary for the provision of service, and it should not be included in the

1 revenue requirement. A Company representative agreed that this was cost an inadvertent
2 charged to the Company.

3
4 **Q. What does Staff recommend?**

5 A. Staff recommends that Miscellaneous Expenses be reduced by \$250 for the fund raising
6 payment as shown on Schedules DRR-8 and DRR-12.

7
8 **Operating Income Adjustment No. 4F – Miscellaneous Expense: Gym Expenses**

9 **Q. Does the Company's application request recovery of Gym Membership Expenses for**
10 **its employees?**

11 A. Yes. The Company revenue requirement includes \$1,613 recorded for Gym Membership
12 Expenses during the Test Year.

13
14 **Q. Does employee Gym Membership Expenses represent costs that should be paid for**
15 **by its customers?**

16 A. No. Gym Membership Expenses are not necessary for the provision of service, and they
17 should not be included in the revenue requirement.

18
19 **Q. What does Staff recommend?**

20 A. Staff recommends that Miscellaneous Expenses be reduced by \$1,613 to reflect the
21 removal of personal expenses shown on Schedules DRR-8 and DRR-12.

22
23 **Operating Income Adjustment No. 5 – Depreciation Expense**

24 **Q. What is the Company proposing for Depreciation Expense?**

25 A. The Company is proposing \$151,017 for Depreciation Expense.

26

1 **Q. What is Staff recommending concerning Depreciation Expense?**

2 A. Staff recommends increasing Test Year Depreciation Expense by \$49 from \$151,017 to
3 \$151,066 to account for the cost (\$773) of the sign transfer from expense to plant in
4 service.

5

6 **Operating Income Adjustment No. 6 – Property Tax Expense**

7 **Q. What is the Company proposing for the Property Tax Expense?**

8 A. The Company is proposing \$48,258 for Property Tax Expense.

9

10 **Q. How did the Company determine this amount?**

11 A. The Company used a modified version of the Arizona Department of Revenue (“ADOR”)
12 method. The Company’s modified method uses a three-year revenue figure which is the
13 average of two times the Company’s Test Year adjusted revenues for the year ending
14 December 31, 2003, and the Company’s proposed revenues. This calculation is shown on
15 Schedule C-2, Step 1, Page 3 of the Company’s filing.

16

17 **Q. What method does Staff recommend for calculating Property Tax Expense?**

18 A. Staff recommends a modified version of the ADOR Method that is the same as the
19 Company’s. This is a method originally devised by Staff, and the Commission has
20 adopted this method in previous decisions.

21

22 **Q. What Property Tax Expense results from applying this method and using Staff’s
23 recommended revenue?**

24 A. The resulting Staff recommended property tax expense is \$48,681 or \$423 greater than the
25 \$48,258 proposed by the Company. Calculation of the adjustment and recommended tax
26 are shown on Schedules DDR-8 and DRR-14.

1 **Operating Income Adjustment No. 7 – Income Tax Expense**

2 **Q. What is the Company proposing for the Income Tax Expense?**

3 A. The Company is proposing a negative \$804 Income Tax Expense for the Test Year.

4
5 **Q. What is Staff recommending for test year Income Tax Expense?**

6 A. Staff recommends test year Income Tax Expense of \$7,165. Staff's calculation is based
7 on application of the statutory state and federal income tax rates to Staff's adjusted taxable
8 income. Staff's calculation results in an adjustment to increase test year Income Tax
9 Expense by \$28,270 from a negative \$21,270 to \$7,165 as shown on Schedules DRR-8
10 and DRR-15.

11
12 **RATE DESIGN**

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

14 A. The present monthly customer charges vary by meter size as follows: 5/8 x 3/4 inch \$9.60;
15 3/4-inch, \$14.50; 1-inch, \$24.00; 1½ -inch, \$48.00; 2-inch, \$77.00; 3-inch, \$144.00; 4-inch,
16 \$240.00; and 6-inch, \$250.00. No gallons are included in the customer charge. The
17 present commodity rate is \$1.80 per 1,000 gallons for all consumption up to 25,000
18 gallons and \$2.20 per 1,000 gallons for all consumption greater than 25,000 gallons. A
19 flat rate of \$2.60 per 1,000 gallons applies to 3-inch meters for commercial construction.

20
21 **Q. Please summarize the Company's proposed step one rate design.**

22 A. The Company's proposed step one monthly customer charges by meter size are as follows:
23 5/8 x 3/4-inch, \$10.37; 3/4-inch, \$15.66; 1-inch, \$25.92; 1½-inch, \$51.85; 2-inch, \$83.18; 3-
24 inch, \$155.55; 4-inch, \$259.25 and 6-inch, \$518.50. No gallons are included in the
25 customer charge. The Company proposes a three tier commodity rate with breakover
26 points that graduate by meter size. The first, second, and third tier rates are \$1.98, \$2.42,

1 and \$2.662 per 1,000 gallons, respectively. A flat rate of \$2.86 per 1,000 gallons is
2 proposed for 3-inch meters for commercial construction.

3
4 **Q. Please summarize the Company's proposed step two rate design.**

5 A. The Company's proposed step two monthly customer charges by meter size are as
6 follows: 5/8 x 3/4-inch, \$14.16; 3/4-inch, \$21.38; 1-inch, \$35.38; 1 1/2-inch, \$70.78; 2-inch,
7 \$113.54; 3-inch, \$212.33; 4-inch, \$353.88 and 6-inch, \$707.75. No gallons are included
8 in the customer charge. The Company proposes a three tier commodity rate with break
9 over points that graduate by meter size. The first, second, and third tier rates are \$2.9440,
10 \$3.5990, and \$3.9580 per 1,000 gallons, respectively. A flat rate of \$4.2530 per 1,000
11 gallons is proposed for 3-inch meters for commercial construction.

12
13 **Q. Please summarize Staff's recommended rate design.**

14 A. Staff recommends an inverted tier rate structure that includes three tiers for the residential
15 5/8 x 3/4-inch and 3/4-inch meter customers and two tiers for all others. The additional tier
16 for the residential 5/8 x 3/4-inch and 3/4-inch meters is for the first 3,000 gallons. Except for
17 the 3,000 gallon breakover point, breakover points graduate by meter size. Staff's
18 recommended rates acknowledge water use patterns by meter size and in total to
19 encourage efficient consumption. Efficient water use is encouraged by producing a higher
20 customer bill with increased consumption or a larger meter. Staff's recommended rates
21 are presented on Schedules DRR-16 and DRR-17. Typical bills for average and median
22 use under present, Company proposed, and Staff recommended rates are presented on
23 Schedule DRR-18.

24

1 **Q. What is the rate impact on a 3/4-inch meter residential customer using a median**
2 **consumption of 7,500 gallons?**

3 A. As shown on the Typical Bill Analysis Schedule DRR-18, a residential 3/4-inch meter
4 customer with median consumption of 7,500 gallons would experience a \$3.76, or 13.45
5 percent increase in his/her monthly bill from \$28.00 to \$31.76 under Staff's recommended
6 rates.

7
8 **RECOMMENDATIONS:**

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

10 A. Staff recommends that the Commission authorize a 10 percent operating margin. Staff
11 recommended operating margin of 10 percent would require a revenue increase of
12 \$129,946 or 15.70 percent, from \$827,565 to \$957,511. Staff's recommended rates would
13 increase the typical 3/4-inch residential water bill with a median usage of 7,500 gallons,
14 from \$28.00 to \$31.76, for an increase of \$3.76 or 13.45 percent.

15
16 Staff further recommends that the Company make all reasonable efforts to institute
17 operating policies that would remove any and all transactions between Company and its
18 owners that are not arms length transactions.

19
20 Staff further recommends that the Company institute a plan that would produce a positive
21 equity position by December 31, 2010. This plan should be filed with Docket Control
22 within 90 days from the date of the Commission's decision.

23
24 Staff recommends adoption of the Company's Proposed Service Line and Meter
25 Installation Charges.

26

1 Staff recommends that the Company file a curtailment tariff within 45 days after the
2 effective date of any decision and order pursuant to this application. The tariff shall be
3 filed with Docket Control as a compliance item in this case for Staff review and
4 certification.

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FINANCING APPLICATION

1 **Q. Did Staff conduct an analysis of the Company's request for authorization to borrow**
2 **\$1,926,100 from the Water Infrastructure Finance Authority of Arizona ("WIFA")**
3 **to purchase and/or construct arsenic removal facilities?**

4 A. Yes. Staff analysis is presented below:

5
6 **Introduction**

7
8 On November 26, 2004, Valley Utilities Water Company, Inc. ("Valley Utilities" or
9 "Applicant") filed an application with the Arizona Corporation Commission
10 ("Commission") requesting authorization to borrow \$1,926,100 from the Water
11 Infrastructure Finance Authority of Arizona ("WIFA") to purchase and/or construct
12 arsenic removal equipment.

13
14 **Notice**

15
16 Valley Utilities notified its customers by mailing to each customer a notification on
17 February 9, 2005. A copy of this notice is attached.

18
19 **Background**

20
21 On January 23, 2001, the Environmental Protection Agency ("EPA") reduced the drinking
22 water maximum contaminant level of arsenic from 50 parts per billion ("ppb") to 10 ppb.
23 All community water systems and non-transient non-community water systems need to
24 comply with the new federal rule by the January 23, 2006 deadline.

1 **Purpose of the Financing**

2

3 The purpose of the \$1,926,100 loan from WIFA is to provide Valley Utilities with
4 sufficient funds to purchase/construct the necessary arsenic removal equipment to comply
5 with the federal arsenic rule.

6

7 The Applicant obtained the services of the Narasimham Consulting Services, Inc. to
8 develop details of the necessary construction projects. The actual amount to purchase
9 and/or construct arsenic removal equipment may be higher or lower than the amount that
10 the Applicant is seeking to finance.

11

12 **Engineering Conclusions**

13

14 Staff concludes that the arsenic treatment facilities being proposed in this financing
15 application are appropriate and recommends that the estimated capital costs and operation
16 and maintenance costs be used for purposes of processing the financing request.

17

18 **Description of the Proposed Financing**

19

20 The term of the proposed \$1,926,100 WIFA loans is 20 years. The maximum interest rate
21 chargeable is the prime rate plus 200 basis points. WIFA will require that the assets of
22 Valley Utilities serve as collateral for the loan. WIFA sets the interest rate the Wednesday
23 before a loan closing. Debt service coverage (“DSC”) of at least 1.2 is required for a loan.
24 Payments on the loan begin six months after WIFA provides the monies to the Applicant.
25 Monthly payments on the loan comprise both principal and interest. WIFA initially
26 calculates the monthly payment based on the maximum amount of the loan independently

1 of the amount of the first draw down. WIFA may adjust the monthly payment amounts if
2 the borrower ends up requiring a total amount less than the maximum amount of the loan.
3

4 **Financial Analysis**

5
6 The financial analysis is based on Staff's proposed rates in the accompanying rate
7 proceeding. Schedule DRR-21, attached, presents selected financial information
8 reflecting Staff's recommended rates and pro forma information reflecting the inclusion of
9 the estimated \$1,926,100 WIFA loans at 5 percent per annum. Valley Utilities Water
10 Company's capital structure before the WIFA loans is composed of 100.0 percent negative
11 equity. The Applicant's capital structure after the WIFA loans would be composed of 6.3
12 percent short-term debt, 121.1 percent long-term debt, and 27.3 percent negative equity.
13

14 The debt service coverage ratio represents the number of times internally generated cash
15 will cover required principal and interest payments on long-term debt. A DSC greater
16 than 1.0 indicates that operating cash flow is sufficient to cover debt obligations.
17

18 The times interest earned ratio ("TIER") represents the number of times earnings will
19 cover interest expense on a long-term debt. A TIER greater than 1.0 means that operating
20 income is greater than interest expense.
21

22 Schedule DRR-21, column B, shows that the pro forma effect on Valley's financial ratios
23 of obtaining a \$1,926,100 WIFA loan at an interest rate of 5.0 percent and implementation
24 of Staff's recommended permanent rates is to produce a TIER of 1.58 and a DSC of 1.86.
25 Column C, shows the pro forma effect of an annual surcharge providing sufficient revenue

1 to maintain the Applicant's pre-loan cash flow. The surcharge revenue improves DSC
2 from 1.86 to 3.07 and TIER from 1.58 to 3.53.

3
4 Calculation of the required additional cash flow to maintain the Applicant's pre-loan cash
5 flow is shown on Schedule DRR-22. The Applicant would need \$185,247 of incremental
6 revenue composed of \$94,998 for interest expense, \$57,539 for principal and \$32,710 for
7 income taxes on that incremental revenue to maintain its pre-loan cash flow.

8
9 The Applicant's proposed loan exacerbates the Applicant's negative equity with a debt
10 burden, an undesirable event. However, there are no other known options for Valley
11 Utilities to finance the purchase/construction of the arsenic removal equipment required to
12 comply with the EPA's maximum contaminant level. Non-compliance may result in
13 delivery of unsafe water and other consequences that may have detrimental operational
14 and financial impacts on the Applicant. A mitigating factor is that the pro forma ratio
15 DSC and TIER indicate that Valley Utilities would have adequate earnings and cash flows
16 to meet all obligations.

17
18 **Compliance**

19 There were no compliance issues at the Commission with the Applicant as of April 26,
20 2005.

21
22 **Conclusion and Recommendations**

23
24 Staff concludes that the purchase and/or construction of arsenic removal equipment is
25 necessary for Valley Utilities to comply with the federal rule that requires reducing the
26 arsenic level in the drinking water to a maximum of 10 ppb by January 23, 2006.

1 Staff concludes that its recommended permanent rates are intended to provide an
2 operating margin to enable the Company to turn around its negative equity position and is
3 insufficient to meet additional debt service obligations of the proposed WIFA debt.
4

5 Staff concludes that the issuance of an estimated \$1,926,100 debt on the terms described
6 in the filing would result in the Applicant having a higher than normal leveraged capital
7 structure. However, Staff also recognizes that there are no other known options for Valley
8 Utilities to finance the purchase/construction of the necessary arsenic removal equipment
9 to deliver safe drinking water. Not complying with the federal arsenic rule may have
10 detrimental operational and financial impacts on the Applicant.
11

12 Staff recommends that Valley Utilities file in Docket Control an arsenic removal
13 surcharge tariff application that would enable the Applicant to meet its principal and
14 interest obligations on the proposed WIFA loan and income taxes on the surcharge.
15

16 Staff recommends that the Applicant follow the same methodology presented in Table A -
17 DRR to calculate the incremental revenue needed to meet its interest, principal and
18 incremental income tax obligations on the WIFA loan using actual loan amounts and use
19 the result to develop its arsenic removal surcharge tariff application. The increase in
20 revenue calculation should be included in the arsenic removal surcharge tariff application.
21

22 Staff recommends approval of Valley Utilities' request for authorization to obtain
23 financing on the terms and conditions described in the application with the understanding
24 that the Commission will subsequently also consider an arsenic removal surcharge to
25 enable the Applicant to meet its principal and interest obligations on the proposed WIFA
26 loan, and incremental income taxes on the surcharge.

1 Staff further recommends ordering Valley Utilities to provide to the file in Docket Control
2 copies of its calculation of revenue requirement for principal and interest obligations on
3 the WIFA loan and incremental income taxes on the surcharge within 60 days after the
4 loan agreement is signed by both WIFA and the Applicant.

5
6 Staff further recommends authorizing the Applicant to execute any documents necessary
7 to effectuate the authorizations granted.

8
9 Staff further recommends ordering Valley Utilities to provide to the Utilities Division
10 Compliance Section copies of all executed financing documents within 60 days after the
11 loan agreement is signed.

12
13 Staff further recommends that the Company be denied using any portion of the loan to pay
14 for incurred operating or other expenses.

15
16 **Q. Does this conclude your testimony?**

17 **A. Yes, it does.**

VALLEY UTILITIES WATER COMPANY, INC.
Docket Nos. W-01412A-04-0736 & W-01412A-04-0849
DIRECT TESTIMONY OF DENNIS R. ROGERS

TABLE OF CONTENTS TO SCHEDULES DRR

<u>SCH #</u>	<u>TITLE</u>
DRR-1	Revenue Requirement
DRR-2	Gross Revenue Conversion Factor
DRR-3	Fair Value Rate Base - Original Cost
DRR-4	Summary of Rate Base Adjustments
DRR-5	Rate Base Adjustment #1- Office Furniture and Equipment
DRR-6	Rate Base Adjustment #2- Cash Working Capital Allowance
DRR-7	Operating Income - Test Year
DRR-8	Summary of Operating Income Adjustments - Test Year
DRR-9	Operating Adjustment #1 - Repairs and Maintenance
DRR-10	Operating Adjustment #2 - Water Testing Expense
DRR-11	Operating Adjustment #3 - Transportation Expense
DRR-12	Operating Adjustment #4A - Recruitment Fees
DRR-12	Operating Adjustment #4B - Directors Fees
DRR-12	Operating Adjustment #4C - Telephone Expenses
DRR-12	Operating Adjustment #4D - Company Sign
DRR-12	Operating Adjustment #4E - High School Fund Raiser
DRR-12	Operating Adjustment #4F - Gym Expenses Raiser
DRR-13	Operating Adjustment #5 - Depreciation Expense
DRR-14	Operating Adjustment #6 - Property Tax Expense
DRR-15	Operating Adjustment #7 - Income Taxes
DRR-16	Rate Design
DRR-17	Minimum Monthly Charges and Commodity Rates
DRR-18	Typical Bill Analysis
DRR-19	Financial Analysis Month 12, 2003
DRR-20	Cost of Capital Summary
DRR-21	Selected Financial Data Including Immediate Effects of Proposed Debt
DRR-22	Calculation of Incremental Required for Wifa Loan to Preserve Cash Flow
DRR-23	Selected Financial Data Including Immediate Effects of Proposed Debt With Staff Recommended ARCM
DRR-24	Calculation of Staff Recommended ARCM Surcharge by Meter Size
DRR-25	Table A - Conversion Factor Table

VALLEY UTILITIES WATER COMPANY, INC.
Docket Nos. W-01412A-04-0736 & W-01412A-04-0849
Test Year Ended December 31, 2003

Schedule DRR-1

LINE NO.	DESCRIPTION	(A)	(B)	(C)
		PHASE ONE COMPANY ORIGINAL COST FAIR VALUE	PHASE TWO COMPANY ORIGINAL COST FAIR VALUE	STAFF ORIGINAL COST FAIR VALUE
1	Adjusted Rate Base	\$ (540,691)	\$ 1,243,934	\$ (539,804)
2	Adjusted Operating Income (Loss)	\$ 13,138	\$ (185,317)	\$ 12,903
3	Current Rate of Return (L2 / L1)	N/A	-14.90%	N/A
4	Required Rate of Return	N/A	N/A	N/A
5	Required Operating Income	\$ 92,835	\$ 133,102	\$ 95,751
6	Operating Income Deficiency (L5 - L2)	\$ 79,697	\$ 318,419	\$ 82,848
7	Gross Revenue Conversion Factor	1.26459	1.2646	1.56848
8	Required Revenue Increase (L7 * L6)	\$ 100,784	\$ 402,669	\$ 129,946
9	Adjusted Test Year Revenue	\$ 827,565	\$ 928,349	\$ 827,565
10	Proposed Annual Revenue (L8 + L9)	\$ 928,349	\$ 1,331,018	\$ 957,511
11	Required Increase in Revenue (%)	12.18%	43.37%	15.70%
12	Rate of Return on Common Equity (%)	N/A	N/A	N/A

References:

Column (A): Company Schedules A-1, A-2, & D-1
Column (B): Company Schedules A-1 Step 2, C-1 Step 2, & B-1 Step 2
Column (B): STAFF Schedules DRR-2, DRR-3, DRR-7

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
<i>Calculation of Gross Revenue Conversion Factor:</i>					
1	Revenue	100.0000%			
2	Uncollectible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Tax Rate (Line 17)	36.2442%			
5	Subtotal (L3 - L4)	63.7558%			
6	Revenue Conversion Factor (L1 / L5)	1.568484			
<i>Calculation of Uncollectible Factor:</i>					
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	36.2442%			
9	One Minus Combined Income Tax Rate (L7 - L8)	63.7558%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 * L10)	0.0000%			
<i>Calculation of Effective Tax Rate:</i>					
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.9680%			
14	Federal Taxable Income (L12 - L13)	93.0320%			
15	Applicable Federal Income Tax Rate (Line 44)	31.4689%			
16	Effective Federal Income Tax Rate (L14 x L15)	29.2762%			
17	Combined Federal and State Income Tax Rate (L13 + L16)	36.2442%			
18	Required Operating Income (Schedule DRR-1, Line 5)	\$ 95,751			
19	Adjusted Test Year Operating Income (Loss) (Schedule DRR-7, Line 51)	\$ 12,903			
20	Required Increase in Operating Income (L18 - L19)		\$ 82,848		
21	Income Taxes on Recommended Revenue (Col. (D), L43)	\$ 54,262			
22	Income Taxes on Test Year Revenue (Col. (B), L43)	\$ 7,165			
23	Required Increase in Revenue to Provide for Income Taxes (L21 - L22)		\$ 47,098		
24	Recommended Revenue Requirement (Schedule DRR-1, Line 10)	\$ 957,511			
25	Uncollectible Rate (Line 10)	0.0000%			
26	Uncollectible Expense on Recommended Revenue (L24 * L25)	\$ -			
27	Adjusted Test Year Uncollectible Expense	\$ -			
28	Required Increase in Revenue to Provide for Uncollectible Exp. (L26 - L27)		\$ -		
29	Total Required Increase in Revenue (L20 + L23 + L28)		\$ 129,946		
<i>Calculation of Income Tax:</i>					
		Test Year		STAFF Recommended	
30	Revenue (Schedule DRR-9, Col. (C), Line 5 & Sch. DRR-1, Col. (B), Line 10)	\$ 827,565		\$ 957,510	
31	Operating Expenses Excluding Income Taxes	\$ 793,322		\$ 793,322	
32	Synchronized Interest (L47)	\$ -		\$ -	
33	Arizona Taxable Income (L30 - L31 - L32)	\$ 34,243		\$ 164,188	
34	Arizona State Income Tax Rate	6.9680%		6.9680%	
35	Arizona Income Tax (L33 x L34)		\$ 2,386		\$ 11,441
36	Federal Taxable Income (L33 - L35)	\$ 31,857		\$ 152,747	
37	Federal Tax on First Income Bracket (\$1 - \$50,000) @ 15%	\$ 4,779		\$ 7,500	
38	Federal Tax on Second Income Bracket (\$51,001 - \$75,000) @ 25%	\$ -		\$ 6,250	
39	Federal Tax on Third Income Bracket (\$75,001 - \$100,000) @ 34%	\$ -		\$ 8,500	
40	Federal Tax on Fourth Income Bracket (\$100,001 - \$335,000) @ 39%	\$ -		\$ 20,571	
41	Federal Tax on Fifth Income Bracket (\$335,001 - \$10,000,000) @ 34%	\$ -		\$ -	
42	Total Federal Income Tax		\$ 4,779		\$ 42,821
43	Combined Federal and State Income Tax (L35 + L42)		\$ 7,165		\$ 54,262
44	Applicable Federal Income Tax Rate [Col. (D), L42 - Col. (B), L42] / [Col. (C), L36 - Col. (A), L36]				31.4689%
<i>Calculation of Interest Synchronization:</i>					
45	Rate Base (Schedule DRR-3, Col. (C), Line 17)	\$ (539,804)			
46	Weighted Average Cost of Debt (Schedule DRR-19, Col. (F), L1 + L2)	0.00%			
47	Synchronized Interest (L45 X L46)	\$ -			

FAIR VALUE RATE BASE - ORIGINAL COST

LINE NO.	(A) COMPANY AS FILED PHASE ONE	(B) STAFF ADJUSTMENTS	(C) STAFF AS ADJUSTED
1	\$ 4,302,296	\$ 773	\$ 4,303,069
2	1,391,574	-	1,391,574
3	<u>\$ 2,910,722</u>	<u>\$ 773</u>	<u>\$ 2,911,495</u>
<i>LESS:</i>			
4	\$ 494,098	\$ -	\$ 494,098
5	170,500	-	170,500
6	<u>323,598</u>	-	<u>323,598</u>
7	3,180,501	-	3,180,501
8	46,999	-	46,999
9	-	-	-
10	-	-	-
<i>ADD:</i>			
11	72,885	114	72,999
12	-	-	-
13	26,800	-	26,800
14	-	-	-
15	-	-	-
16	-	-	-
17	<u>\$ (540,691)</u>	<u>\$ 887</u>	<u>\$ (539,804)</u>

References:

Column (A), Company Schedule B-1
Column (B): Schedule DRR-4
Column (C): Column (A) + Column (B)

SUMMARY OF FAIR VALUE ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED PHASE ONE	[B] ADJ #1	[C] ADJ #2	[D] STAFF ADJUSTED
PLANT IN SERVICE:						
1		Intangible Plant		Company Sign	Cash Working Capital	
2	301.00	Organization	\$ -	\$ -	\$ -	\$ -
3	302.00	Franchises	-	-	-	-
4	303.00	Land	44,046	-	-	44,046
5		Subtotal Intangible	<u>44,046</u>	<u>-</u>	<u>-</u>	<u>44,046</u>
6						
7		Source of Supply				
8	304.00	Structures & Improvements	12,303	-	-	12,303
9	305.00	Collecting and Impounding Res.	-	-	-	-
10	306.00	Lake River and Other Intakes	-	-	-	-
11	307.00	Wells and Springs	946,947	-	-	946,947
12	308.00	Infiltration Galleries and Tunnels	-	-	-	-
13	309.00	Supply Mains	155,059	-	-	155,059
14	310.00	Power Generating Equipment	-	-	-	-
15	311.00	Electric Pumping Equipment	207,173	-	-	207,173
16	312.00	Collecting & Impounding Reservoirs	-	-	-	-
17	313.00	Lakes, Rivers, Other Intakes	-	-	-	-
18		Subtotal Source of Supply	<u>1,321,482</u>	<u>-</u>	<u>-</u>	<u>362,232</u>
19						
20		Water Treatment				
21	320.00	Water Treatment Equipment	3,225	-	-	3,225
22	321.00	Structures & Improvements	-	-	-	-
23	323.00	Other Power Production	-	-	-	-
24	325.00	Electric Pumping Equipment	-	-	-	-
25	326.00	Diesel Pumping Equipment	-	-	-	-
26	328.10	Gas Engine Pumping Equipment	-	-	-	-
27		Subtotal Water Treatment	<u>3,225</u>	<u>-</u>	<u>-</u>	<u>3,225</u>
28						
29		Transmission & Distribution				
30	330.00	Distribution Reservoirs & Standpipe	284,041	-	-	284,041
31	331.00	Transmission and Distribution Mains	2,091,023	-	-	2,091,023
32	332.00	Services	54,483	-	-	54,483
33	334.00	Meters	318,631	-	-	318,631
34	335.00	Hydrants	80,088	-	-	80,088
35	336.00	Backflow Prevention Devices	-	-	-	-
36	339.00	Other Plant and Miscellaneous Equipment	-	-	-	-
37		Subtotal Transmission & Distribution	<u>2,828,266</u>	<u>-</u>	<u>-</u>	<u>2,828,266</u>
38						
39		General Plant				
40	340.00	Office Furniture and Equipment	33,314	773	-	34,087
41	340.10	Leasehold Improvements	-	-	-	-
42	341.00	Transportation Equipment	41,826	-	-	41,826
43	342.00	Stores Equipment	-	-	-	-
44	343.00	Tools and Work Equipment	20,015	-	-	20,015
45	344.00	Laboratory Equipment	-	-	-	-
46	345.00	Power Operated Equipment	5,930	-	-	5,930
47	346.00	Communications Equipment	-	-	-	-
48	347.00	Miscellaneous Equipment	-	-	-	-
49	349.00	Other Tangible Plant	4,192	-	-	4,192
50		Plant Held for Future Use	-	-	-	-
51		Subtotal General Plant	<u>105,277</u>	<u>773</u>	<u>-</u>	<u>106,050</u>
52						
53		Total	<u>4,302,296</u>	<u>773</u>	<u>-</u>	<u>4,303,069</u>
54	Add:					
55			-	-	-	-
56			-	-	-	-
57	Less:					
58			-	-	-	-
59			-	-	-	-
60	Total Plant in Service		\$ 4,302,296	\$ 773	\$ -	\$ 4,303,069
61	Less: Accumulated Depreciation		1,391,574	-	-	1,391,574
62	Net Plant in Service (L59 - L 60)		<u>\$ 2,910,722</u>	<u>\$ 773</u>	<u>\$ -</u>	<u>\$ 2,911,495</u>
63						
64	LESS:					
65	Contributions in Aid of Construction (CIAC)		\$ 494,098	\$ -	\$ -	\$ 494,098
66	Less: Accumulated Amortization		170,500	-	-	170,500
67	Net CIAC (L25 - L26)		323,598	-	-	323,598
68	Advances in Aid of Construction (AIAC)		3,180,501	-	-	3,180,501
69	Customer Deposits		46,999	-	-	46,999
70	Meter Advances (Included in AIAC total - \$285,682)		-	-	-	-
71	Deferred Income Tax Credits		-	-	-	-
72						
73	ADD:					
74	Cash Working Capital Allowance		72,885	-	114	72,999
75	Prepayments		-	-	-	-
76	Supplies Inventory		26,800	-	-	26,800
77	Projected Capital Expenditures		-	-	-	-
78	Deferred Debits		-	-	-	-
79	Intentionally left blank		-	-	-	-
80	Original Cost Rate Base		<u>\$ (540,691)</u>	<u>\$ 773</u>	<u>\$ 114</u>	<u>\$ (539,804)</u>

ADJ #	References:
1	Company Sign
2	Cash Working Capital Allowance
	Schedule DRR-5
	Schedule DRR-6

VALLEY UTILITIES WATER COMPANY, INC.

Schedule DRR-5

Docket Nos. W-01412A-04-0736 & W-01412A-04-0849

Test Year Ended December 31, 2003

RATE BASE ADJUSTMENT #1 - OFFICE FURNITURE AND EQUIPMENT

LINE NO.	Office Furniture and Equipment	
1	Office Furniture and Equipment - Company's Test Year	\$ 33,314
2	Add: Reclass Company Utility Sign to Rate Base	<u>773</u>
3	Staff Recommended Office Furniture and Equipment	<u>\$ 34,087</u>

REFERENCES:

Line 1: Company Schedule B-2, Step 1, Page 2e

Line 2: Testimony, DRR

Line 3: Line 1 plus Line 2

VALLEY UTILITIES WATER COMPANY, INC.
 Docket Nos. W-01412A-04-0736 & W-01412A-04-0849
 Test Year Ended December 31, 2003

Schedule DRR-6

RATE BASE ADJUSTMENT #2 - CASH WORKING CAPITAL ALLOWANCE

LINE NO.	DESCRIPTION	[A] AMOUNTS	[B]	[C]	[D]	[E]
1	Total Operating Expenses		\$ 861,760			
2	Less:					
3	Income Taxes	7,165				
4	Property Taxes	48,747				
5	Other Taxes	17,612				
6	Depreciation Before CIAC	151,066				
7	Amortization of CIAC	(17,523)				
8	Purchased Water	-				
9	Purchased Pumping Power	106,043				
10	Total Deductions		\$ 313,109			
11	Expenses - Other (L1 - L9)			\$ 548,650		
12	One-eighth			0.125		
13	Sub-total (L10 * L11)				\$ 68,581	
14	Purchased Water		\$ -			
15	Purchased Pumping Power		106,043			
16	Sub-total (L14 * L15)			\$ 106,043		
17	One-twenty-fourth			0.04167		
18	Sub-total (L16 * L17)				4,418	
19	Cash Working Capital Allowance - STAFF (L13+ L18)					\$ 72,999
20	Cash Working Capital Allowance - Company					72,885
21	STAFF Adjustment					\$ 114

REFERENCES:
 Lines 1 through 9: Schedule DRR-7
 Line 20: Company Schedule B-5
 Line 21: Line 19 - Line 20: Testimony DRR

OPERATING INCOME STATEMENT - TEST YEAR AND STAFF PROPOSED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED PHASE ONE	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	REVENUES:					
2	Metered Water Sales	\$ 785,774	\$ -	\$ 785,774	\$ 129,946	\$ 915,720
3	Water Sales - Unmetered	-	-	-	-	-
4	Other Operating Revenue	41,791	-	41,791	-	41,791
5	Total Operating Revenues	<u>\$ 827,565</u>	<u>\$ -</u>	<u>\$ 827,565</u>	<u>\$ 129,946</u>	<u>\$ 957,511</u>
6	OPERATING EXPENSES:					
7	Salaries & Wages Employees	\$ 214,213	\$ -	\$ 214,213	\$ -	\$ 214,213
8	Purchased Water	-	-	-	-	-
10	Purchased Pumping Power	106,043	-	106,043	-	106,043
11	Chemicals	2,225	-	2,225	-	2,225
12	Repairs and Maintenance	21,743	(1,113)	20,630	-	20,630
13	Office Supplies and Expense	30,348	-	30,348	-	30,348
14	Outside Services	5,382	-	5,382	-	5,382
15	Water Testing	1,599	2,415	4,014	-	4,014
16	Rents	71,493	-	71,493	-	71,493
17	Transportation Expense	39,015	(12,799)	26,216	-	26,216
18	Insurance - General Liability	9,083	-	9,083	-	9,083
19	Insurance - Health and Life	58,498	-	58,498	-	58,498
20	Regulatory Comm. Exp. - Rate Ca:	30,000	-	30,000	-	30,000
21	Miscellaneous Expense	46,526	(17,076)	29,450	-	29,450
22	Depreciation Expense	151,017	49	151,066	-	151,066
23	Amortization of CIAC	(17,523)	-	(17,523)	-	(17,523)
24	Other Taxes and Licenses	17,612	-	17,612	-	17,612
25	Property Taxes	48,258	489	48,747	-	48,747
26	Income Tax	(21,105)	28,270	7,165	47,098	54,262
27	Total Operating Expenses	<u>\$ 814,427</u>	<u>\$ 235</u>	<u>\$ 814,662</u>	<u>\$ 47,098</u>	<u>\$ 861,760</u>
28	Operating Income (Loss)	<u>\$ 13,138</u>	<u>\$ (235)</u>	<u>\$ 12,903</u>	<u>\$ 82,848</u>	<u>\$ 95,751</u>

References:
Column (A): Company Schedule C-1
Column (B): Schedule DRR-8
Column (C): Column (A) + Column (B)
Column (D): Schedules DRR-1 and DRR-2
Column (E): Column (C) + Column (D)

VALLEY UTILITIES WATER COMPANY, INC.
 Docket Nos. W-01412A-04-0736 & W-01412A-04-0849
 Test Year Ended December 31, 2003

SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	(A) COMPANY AS FILED PHASE ONE	(B) ADJ.#1 Lawn Care	(C) ADJ.#2 Water Testing	(D) ADJ.#3 Transportation Expenses	(E) ADJ.#4 Recruitment Nonrecurring	(F) ADJ.#4A Director's Fees	(G) ADJ.#4B Telephone Non related	(H) ADJ.#4C Company Sign Nonrecurring	(I) ADJ.#4D High School Fund Raiser	(J) ADJ.#4E Gym Expenses	(K) ADJ.#5 Depreciation Expense	(L) ADJ.#6 Property Taxes	(M) ADJ.#7 Income Taxes	(N) STAFF ADJUSTED
1	REVENUES:														
2	Metered Water Sales	\$ 785,774													\$ 785,774
3	Water Sales - Unmetered														
4	Other Operating Revenue	41,791													41,791
5	Total Operating Revenues	\$ 827,565													\$ 827,565
7	OPERATING EXPENSES:														
8	Salaries & Wages Employees	\$ 214,213													\$ 214,213
9	Purchased Water														
10	Purchased Pumping Power	106,043													106,043
11	Chemicals	2,225													2,225
12	Repairs and Maintenance	21,743	(1,113)												20,630
13	Office Supplies and Expense	30,348													30,348
14	Outside Services	5,382													5,382
15	Water Testing	1,599		2,415											71,493
16	Rents	71,493													26,216
17	Transportation Expense	39,015			(12,799)										9,083
18	Insurance - General Liability	9,083													58,498
19	Insurance - Health and Life	58,498													30,000
20	Regulatory Comm. Exp. - Rate Case	30,000													29,450
21	Miscellaneous Expense	46,526							(773)						151,066
22	Depreciation Expense	151,017				(4,850)					(1,613)				(17,523)
23	Amortization of CIAC	(17,523)													17,612
24	Other Taxes and Licenses	17,612													48,747
25	Property Taxes	48,258													28,270
26	Income Tax	(21,105)													7,165
27															
28															
29	Total Operating Expenses	\$ 814,427	\$ (1,113)	\$ 2,415	\$ (12,799)	\$ (4,850)	\$ (9,000)	\$ (590)	\$ (773)	\$ (250)	\$ (1,613)	\$ 49	\$ 489	\$ 28,270	\$ 814,662
30	Operating Income (Loss)	\$ 13,138	\$ 1,113	\$ (2,415)	\$ 12,799	\$ 4,850	\$ 9,000	\$ 590	\$ 773	\$ 250	\$ 1,613	\$ (49)	\$ (489)	\$ (28,270)	\$ 12,903

ADJ.#	Reference:
1	Repair and Maintenance
2	Water Testing Expenses
3	Transportation Expenses
4A	Recruitment Expenses
4B	Director's Fees
4C	Telephone Expense
4D	Company Sign
4E	Fund Raising
4F	Gym Memberships
5	Depreciation Expense
6	Property Tax
7	Income Tax

VALLEY UTILITIES WATER COMPANY, INC.
Docket Nos. W-01412A-04-0736 & W-01412A-04-0849
Test Year Ended December 31, 2003

Schedule DRR-9

OPERATING INCOME ADJUSTMENT #1 - REPAIRS AND MAINTENANCE

LINE NO.	<u>Repairs & Maintenance</u>	
1	Repairs & Maintenance - Company's Test Year	\$ 21,743
2	Less: 1/2 of Lawn Service Expenses	<u>1,113</u>
3	Staff Recommended Repairs & Maintenance	<u>\$ 20,630</u>

REFERENCES:

Line 1: Company Schedule C-1, Step 1, Page 1, Line 11
Line 2: Testimony, DRR
Line 3: Line 1 minus Line 2

VALLEY UTILITIES WATER COMPANY, INC.
Docket Nos. W-01412A-04-0736 & W-01412A-04-0849
Test Year Ended December 31, 2003

Schedule DRR-10

OPERATING INCOME ADJUSTMENT #2 - WATER TESTING EXPENSE

LINE NO.	<u>Water Testing Expense</u>	
1	Per Company Application, Schedule C-1	\$ 1,599
2	Per Staff's Calculation	<u>4,014</u>
3	Difference	\$ 2,415
4	Staff Recommended Increase to Water Testing Expense	<u>\$ 2,415</u>

REFERENCES:

Line 1: Company Schedule C-1, Step 1, Page 1, Line 14

Line 2: Testimony DRR

Line 3: Line 2 minus Line 1

Line 4: Testimony DRR

VALLEY UTILITIES WATER COMPANY, INC.

Docket Nos. W-01412A-04-0736 & W-01412A-04-0849

Test Year Ended December 31, 2003

Schedule DRR-11

OPERATING ADJUSTMENT #3 - TRANSPORTATION EXPENSE

<u>Line No.</u>	<u>Transportation Expense</u>		
1	Per Company Application, Schedule C-1		\$ 39,015
2	Less:		
3	Terminated Lease	\$ 12,420	
4	2003 GMC Two Year Vehicle Registration - 1/2 of \$757.16	<u>379</u>	<u>\$ 12,799</u>
5	Staff Recommended Transportation Expenses		<u>\$ 26,216</u>

REFERENCES:

Line 1: Company Schedule C-1, Step 1, Page 1, Line 16

Line 2 thru Line 4: Testimony, DRR

Line 3: Line 1 minus Line 4

VALLEY UTILITIES WATER COMPANY, INC.
Docket Nos. W-01412A-04-0736 & W-01412A-04-0849
Test Year Ended December 31, 2003

Schedule DRR-12

OPERATING INCOME ADJUSTMENT #4 - MISCELLANEOUS EXPENSES

LINE NO.	ADJUSTMENT No.	MISCELLANEOUS EXPENSES		
1		Per Company Application		\$ 46,526
		Less: Staff Adjustments		
2	4A	Recruitment Fees	\$ 4,850	
3	4B	Directors Fees	9,000	
4	4C	Telephone Expenses	590	
5	4D	Company Sign	773	
6	4E	High School Fund Raiser	250	
7	4F	Gym Expenses	1,613	17,076
				<hr/>
8		Staff Recommended		\$ 29,450
				<hr/> <hr/>

REFERENCES:

Line 1: Company Schedule C-1, Step 1, Page 1, Line 20
Lines 2 thru 7: Testimony DRR
Line 8: Line 1 minus Line 7

VALLEY UTILITIES WATER COMPANY, INC.
Docket Nos. W-01412A-04-0736 & W-01412A-04-0849
Test Year Ended December 31, 2003

Schedule DRR-13

OPERATING INCOME ADJUSTMENT #5 - DEPRECIATION EXPENSE

<u>LINE NO.</u>	<u>Depreciation Expense</u>	
1	Per Company Application, Schedule C-2	\$ 133,494
2	Add: Reclassification Company Sign	49
3	Staff Recommended Depreciation Expense	<u>\$ 133,543</u>
4	Staff Recommended Increase to Depreciation Expense	<u>\$ 49</u>

REFERENCES:

Line 1: Company Schedule C-2, Step 1, Page 2, Line 50
Line 2: Testimony - DRR
Line 3: Line 2 plus Line 1
Line 4: Testimony DRR

VALLEY UTILITIES WATER COMPANY, INC.

Docket Nos. W-01412A-04-0736 & W-01412A-04-0849

Test Year Ended December 31, 2003

Schedule DRR-14

OPERATING ADJUSTMENT #6 - PROPERTY TAX EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	(C)
		COMPANY AS FILED	STAFF ADJUSTMENT	STAFF AS ADJUSTED
1	Staff Adjusted Test Year Revenues - 2003	\$ 827,565		\$ 827,565
2	Weight Factor			2
3	Subtotal (Line 1 * Line 2)			\$ 1,655,130
4	Staff Recommended Revenue			954,682
5	Subtotal (Line 4 + Line 5)			2,609,812
6	Number of Years			3
7	Three Year Average (Line 5 / Line 6)			869,937
8	Department of Revenue Mutilplier			2
9	Revenue Base Value (Line 7 * Line 8)			1,739,875
10	Plus: 10% of CWIP - 2003			-
11	Less: Net Book Value of Licensed Vehicles			29,253
12	Full Cash Value (Line 9 + Line 10 - Line 11)			1,710,622
13	Assessment Ratio			0.25
14	Assessment Value (Line 12 * Line 13)			427,655
15	Composite Property Tax Rate (Per Company Schedule C-2, Step 1, Page 3, Line 18)			11.1362%
16	Subtotal: Staff Proposed Property Tax Expense (Line 14 * Line 15)			\$ 47,625
17	Add: Tax on Parcels [Per Company Schedule C-2, Step 1, Page 3, Line 21]			1,122
18	Staff Proposed Property Tax Expense [Line 16 + Line 17]			\$ 48,747
19	Company Proposed Property Tax			48,258
20	Staff Recommended Increase to Property Tax Expense			\$ 489

VALLEY UTILITIES WATER COMPANY, INC.
Docket Nos. W-01412A-04-0736 & W-01412A-04-0849
Test Year Ended December 31, 2003

Schedule DRR-15

OPERATING INCOME ADJUSTMENT #7 - INCOME TAXES

<u>Line</u> <u>No.</u>	<u>Income Tax</u>	
1	Staff Calculated Income Tax, Per Staff Schedule DRR-2, Line 43	\$ 7,165
2	Income Tax, Per Company Schedule C-1	<u>(21,105)</u>
3	Increase/(Decrease) to Income Tax Expense	<u>\$ 28,270</u>

RATE DESIGN

Monthly Usage Charge

Residential and Commercial

5/8" x 3/4" Meter
 3/4" Meter
 1" Meter
 1 1/2" Meter
 2" Meter
 3" Meter
 4" Meter
 6" Meter
 8" Meter
 10" Meter
 12" Meter
 Commercial Construction 3"

Present Rates	Company Phase Two	Staff Recommended	Estimated ARSM
9.60	14.16	11.24	\$ 6.71
14.50	21.38	16.87	\$ 10.06
24.00	35.38	28.10	\$ 16.77
48.00	70.78	56.21	\$ 33.54
77.00	113.54	89.94	\$ 53.67
144.00	212.33	179.87	\$ 100.63
240.00	353.88	281.05	Not Used
480.00	707.75	562.10	Not Used
		899.36	Not Used
		1,292.83	Not Used
		2,417.03	Not Used
144.00	212.33	179.87	\$ 100.63

Commodity Charges

No Gallons included in any Minimum

Excess of Minimum - per 1,000 Gallons

Residential 5/8" Meter
 Commercial 5/8" Meter
 Residential 3/4" Meter
 Commercial 3/4" Meter
 Residential and Commercial
 1" Meter
 1 1/2" Meter
 2" Meter
 3" Meter
 4" Meter
 6" Meter
 8" Meter
 10" Meter
 12" Meter
 Commercial Construction 3" Flat Rates

	Present		Company Proposed: Phase Two			Staff Recommended					
	1st Tier	2nd Tier	1st Tier	2nd Tier	3rd Tier	1st Tier	Upper Limit	2nd Tier	Upper Limit	3rd Tier	Upper Limit
	\$ 1.80	\$ 2.20	\$ 2.9400	\$ 3.5990	\$ 3.9580						
Residential 5/8" Meter	25,000	Infinite	8,000	12,000	Infinite	\$ 1.50	3,000	\$ 2.31	10,000	\$ 2.53	Infinite
Commercial 5/8" Meter	25,000	Infinite	8,000	12,000	Infinite	\$ 2.30	18,000	\$ 2.58	Infinite		
Residential 3/4" Meter	25,000	Infinite	12,000	18,000	Infinite	\$ 1.50	3,000	\$ 2.31	10,000	\$ 2.53	Infinite
Commercial 3/4" Meter	25,000	Infinite	12,000	18,000	Infinite	\$ 2.30	18,000	\$ 2.58	Infinite		
Residential and Commercial 1" Meter	25,000	Infinite	20,000	30,000	Infinite	\$ 2.31	50,359	\$ 2.53	Infinite		
1 1/2" Meter	25,000	Infinite	40,000	60,800	Infinite	\$ 2.31	126,054	\$ 2.53	Infinite		
2" Meter	25,000	Infinite	64,000	96,000	Infinite	\$ 2.31	151,256	\$ 2.53	Infinite		
3" Meter	25,000	Infinite	128,000	192,000	Infinite	\$ 2.31	403,274	\$ 2.53	Infinite		
4" Meter	25,000	Infinite	200,000	300,000	Infinite	\$ 2.31	453,722	\$ 2.53	Infinite		
6" Meter	25,000	Infinite	400,000	600,000	Infinite	\$ 2.31	1,260,313	\$ 2.53	Infinite		
8" Meter											
10" Meter											
12" Meter											
Commercial Construction 3" Flat Rates	\$ 2.60		\$ 4.25				\$ 3.02				

Service Line and Meter Installation Charges

Residential and Commercial

5/8" x 3/4" Meter
 3/4" Meter
 1" Meter
 1 1/2" Meter
 2" Turbine Meter
 2" Compound Meter
 3" Turbine Meter
 3" Compound Meter
 4" Turbine Meter
 4" Compound Meter
 6" Turbine Meter
 6" Compound Meter
 8" Meter
 10" Meter
 12" Meter

	Present Rates		Company Proposed Phase Two			Staff Recommended		
	Total	Service Line	Meter Install.	Total	Service Line	Meter Install.	Total	
5/8" x 3/4" Meter	455.00	385.00	135.00	520.00	385.00	135.00	520.00	
3/4" Meter	515.00	385.00	215.00	600.00	385.00	215.00	600.00	
1" Meter	590.00	435.00	255.00	690.00	435.00	255.00	690.00	
1 1/2" Meter	820.00	470.00	465.00	935.00	470.00	465.00	935.00	
2" Turbine Meter	1,380.00	630.00	965.00	1,595.00	630.00	965.00	1,595.00	
2" Compound Meter	2,010.00	630.00	1,690.00	2,320.00	630.00	1,690.00	2,320.00	
3" Turbine Meter	1,935.00	805.00	1,470.00	2,275.00	805.00	1,470.00	2,275.00	
3" Compound Meter	2,650.00	845.00	2,265.00	3,110.00	845.00	2,265.00	3,110.00	
4" Turbine Meter	3,030.00	1,170.00	2,350.00	3,520.00	1,170.00	2,350.00	3,520.00	
4" Compound Meter	3,835.00	1,230.00	3,245.00	4,475.00	1,230.00	3,245.00	4,475.00	
6" Turbine Meter	3,535.00	1,730.00	4,545.00	6,275.00	1,730.00	4,545.00	6,275.00	
6" Compound Meter	7,130.00	1,770.00	6,280.00	8,050.00	1,770.00	6,280.00	8,050.00	
8" Meter	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	
10" Meter	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	
12" Meter	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	

Service Charges

Establishment
 Establishment (After Hours)
 Reconnection (Delinquent)
 Reconnection (Delinquent)- After Hours
 Meter Test (If Correct)
 Deposit - Residential Note 1
 Deposit - Non - Residential Note 2
 Deposit Interest - Note 3
 Re-Establishment (Within 12 Months)- Note 4
 NSF Check
 Meter Re-Read (If Correct)

	Present	Company Proposed	Staff
		Phase One	Recommended
Establishment	30.00	30.00	30.00
Establishment (After Hours)	45.00	45.00	45.00
Reconnection (Delinquent)	40.00	40.00	40.00
Reconnection (Delinquent)- After Hours	40.00	40.00	40.00
Meter Test (If Correct)	30.00	30.00	30.00
Deposit - Residential Note 1			
Deposit - Non - Residential Note 2			
Deposit Interest - Note 3	6.00%	6.00%	6.00%
Re-Establishment (Within 12 Months)- Note 4			
NSF Check	25.00	25.00	25.00
Meter Re-Read (If Correct)	10.00	10.00	10.00

Note 1 Per Commission Rules (R14-2-403.B) Two times the average bill.
 Note 2 Per Commission Rules (R14-2-403.B) Two and one-half times the average bill
 Note 3 Per Commission Rules (R14-2-403.B)
 Note 4 Months off system times the minimum (R14-2-403.D)

TYPICAL BILL ANALYSIS AVERAGE AND MEDIAN USAGE AND COSTS

LINE NO.	CUSTOMER CLASS	CURRENT			
		AVERAGE		MEDIAN	
		USAGE	DOLLARS	USAGE	DOLLARS
1	Residential 5/8"	9,251	\$ 26.25	6,500	\$ 21.30
2	Residential 3/4"	10,134	\$ 32.74	7,500	\$ 28.00
3	Residential 1"	19,749	\$ 59.55	12,000	\$ 45.60
4	Commerical 5/8"	3,369	\$ 15.66	2,500	\$ 14.10
5	Commerical 1"	38,207	\$ 98.05	26,500	\$ 72.30
6	Commerical 1.5"	52,593	\$ 153.70	35,500	\$ 116.10
7	Commerical 2"	158,299	\$ 415.26	82,500	\$ 248.50
8	Construction Water	53,779	\$ 283.83	3,500	\$ 153.10
9	Intentially Left Blank				

LINE NO.	CUSTOMER CLASS	COMPANY PROPOSED: PHASE TWO					
		AVERAGE	INCREASE	PERCENT	MEDIAN	INCREASE	PERCENT
10	Residential 5/8"	\$ 42.23	\$ 15.98	60.86%	\$ 34.49	\$ 13.19	61.93%
11	Residential 3/4"	\$ 51.49	\$ 18.75	57.28%	\$ 46.37	\$ 18.37	65.61%
12	Residential 1"	\$ 94.32	\$ 34.78	58.40%	\$ 72.13	\$ 26.53	58.18%
13	Commerical 5/8"	\$ 24.07	\$ 8.40	53.63%	\$ 21.51	\$ 7.41	52.55%
14	Commerical 1"	\$ 160.49	\$ 62.43	63.67%	\$ 117.57	\$ 45.27	62.62%
15	Commerical 1.5"	\$ 233.70	\$ 80.00	52.05%	\$ 175.15	\$ 59.05	50.86%
16	Commerical 2"	\$ 641.29	\$ 226.04	54.43%	\$ 297.29	\$ 48.79	19.63%
17	Construction Water	\$ 441.05	\$ 157.23	55.40%	\$ 244.23	\$ 91.13	59.52%
18	Intentially Left Blank						

TYPICAL BILL ANALYSIS AVERAGE AND MEDIAN USAGE AND COSTS

LINE NO.	CUSTOMER CLASS	STAFF RECOMMENDED WITH ESTIMATED ARSENIC REMEDIAL SURCHARGE MECHANISM					
		AVERAGE	INCREASE	PERCENT	MEDIAN	INCREASE	PERCENT
19	Residential 5/8"	\$ 30.18	\$ 3.93	14.97%	\$ 23.83	\$ 2.53	11.86%
20	Estimated Arsenic Surcharge	\$ 6.71	\$ 6.71	25.56%	\$ 6.71	\$ 6.71	31.50%
21	Total	\$ 36.89	\$ 10.64	40.53%	\$ 30.54	\$ 9.24	43.37%
22	Residential 3/4"	\$ 37.88	\$ 5.14	15.69%	\$ 31.76	\$ 3.76	13.45%
23	Estimated Arsenic Surcharge	\$ 10.06	\$ 10.06	30.74%	\$ 10.06	\$ 10.06	35.94%
24	Total	\$ 47.94	\$ 15.20	46.43%	\$ 41.83	\$ 13.83	49.39%
25	Residential 1"	\$ 73.72	\$ 14.17	23.80%	\$ 55.82	\$ 10.22	22.41%
26	Estimated Arsenic Surcharge	\$ 16.77	\$ 16.77	28.17%	\$ 16.77	\$ 16.77	36.78%
27	Total	\$ 90.49	\$ 30.94	51.96%	\$ 72.59	\$ 26.99	59.19%
28	Commerical 5/8"	\$ 19.02	\$ 3.36	21.45%	\$ 17.02	\$ 2.92	20.69%
29	Estimated Arsenic Surcharge	\$ 6.71	\$ 6.71	42.83%	\$ 6.71	\$ 6.71	47.58%
30	Total	\$ 25.73	\$ 10.07	64.28%	\$ 23.73	\$ 9.63	68.27%
31	Commerical 1"	\$ 113.65	\$ 15.59	15.90%	\$ 83.99	\$ 11.69	16.17%
32	Estimated Arsenic Surcharge	\$ 16.77	\$ 16.77	17.10%	\$ 16.77	\$ 16.77	23.20%
33	Total	\$ 130.42	\$ 32.37	33.01%	\$ 100.77	\$ 28.47	39.37%
34	Commerical 1.5"	\$ 191.90	\$ 38.20	24.85%	\$ 147.80	\$ 31.70	27.30%
35	Estimated Arsenic Surcharge	\$ 33.54	\$ 33.54	21.82%	\$ 33.54	\$ 33.54	28.89%
36	Total	\$ 225.44	\$ 71.74	46.67%	\$ 181.34	\$ 65.24	56.20%
37	Commerical 2"	\$ 490.91	\$ 75.65	18.22%	\$ 298.91	\$ 50.41	20.29%
38	Estimated Arsenic Surcharge	\$ 53.67	\$ 53.67	12.92%	\$ 53.67	\$ 53.67	21.60%
39	Total	\$ 544.58	\$ 129.32	31.14%	\$ 352.58	\$ 104.08	41.88%
40	Construction Water	\$ 342.39	\$ 58.56	20.63%	\$ 190.45	\$ 37.35	24.39%
41	Estimated Arsenic Surcharge	\$ 100.63	\$ 100.63	35.46%	\$ 100.63	\$ 100.63	65.73%
42	Total	\$ 443.02	\$ 159.20	56.09%	\$ 291.08	\$ 137.98	90.12%
43	Intentially Left Blank						

FINANCIAL ANALYSIS

Month 12, 2003 Income Statement and Capital Structure and Staff Recommended Pro Forma 2003
Including Immediate Effects of the Proposed Debt

	[A] <u>12/31/2003</u>		[B] <u>Pro Forma</u>	
1	Operating Income	\$ 13,138	\$ 95,751	
2	Depreciation & Amort.	133,494	133,494	
3	Income Tax Expense	(21,105)	54,262	
4				
5	Interest Expense	0	94,998	
6	Repayment of Principal	0	57,539	
7				
8				
9	TIER¹			
10	[1+3] ÷ [5]	N/A	1.58	
11	DSC			
12	[1+2+3] ÷ [5+6]	N/A	1.86	
13	Cash Coverage Ratio			
14	[1+2+3] ÷ [5]	N/A	2.98	
15				
16				
17				
18	Short-term Debt	\$0	0%	\$152,537 10.1%
19				
20	Long-term Debt	\$0	0%	\$1,773,563 117.2%
21				
22	Common Equity	(\$413,442)	100%	(\$413,442) -27.3%
23				
24	Total Capital	(\$413,442)	100%	\$1,512,658 100.0%
25				
26				
27	¹ EBIT Interest coverage (earnings before interest and taxes)			

VALLEY UTILITIES WATER COMPANY, INC.
Docket Nos. W-01412A-04-0736 & W-01412A-04-0849
Test Year Ended December 31, 2003

Schedule DRR-20

CALCULATION OF INCREMENTAL REVENUE REQUIRED FOR WIFA LOAN TO PRESERVE

Line No.	CASH FLOW	
1	Annual Principal Payment on the Loan	\$ 57,539
2	Gross Revenue Conversion Factor	1.5685
3	Increase in Revenue Due to Principal Payment [L1 X L2]	\$ 90,248
4	Annual Principal Payment on the Loan [L1]	\$ 57,539
5	Incremental Income Taxes [L3 - L4]	\$ 32,710
6	Annual Interest Payment on the Loan	\$ 94,998
7	Debt Service Component of Incremental Revenue [L1+L6]	\$ 152,537
8	Total Incremental Revenue Requirement [L5 + L7]	\$ 185,247

FINANCIAL ANALYSIS

Selected Financial Data
Including Immediate Effects of the Proposed Debt With Staff Recommended Surcharge
Staff Recommended Rates and Pro Forma Surcharge and WIFA Loan

INCOME STATEMENT	[A] Recommend Rates	[B] Pro Forma Surcharge	[C] Recommend Rates With Surcharge	[D] With WIFA Loan	
Metered Water Revenue	\$ 915,720		\$ 915,720	\$ 915,720	
Surcharge	\$ -	\$ 185,247	\$ 185,247	\$ -	
Other Water Revenues	\$ 41,791	\$ -	\$ 41,791	\$ 41,791	
Operating Revenue:	\$ 957,511	\$ 185,247	\$ 1,142,758	\$ 957,511	
Operating Expenses:					
Purchased Water/Pumping Power	\$ 106,043	\$ -	\$ 106,043	\$ 106,043	
Admin. & General	\$ 480,922	\$ -	\$ 480,922	\$ 480,922	
Maintenance & Testing	\$ 20,630	\$ -	\$ 20,630	\$ 20,630	
Depreciation [4]	\$ 133,543	\$ -	\$ 133,543	\$ 133,543	
Property Taxes	\$ 48,747	\$ -	\$ 48,747	\$ 48,747	
Other taxes	\$ 17,612	\$ -	\$ 17,612	\$ 17,612	
Income Tax [2]	\$ 54,262	\$ 32,710	\$ 86,972	\$ 54,262	
Total Operating Expense	\$ 861,760	\$ 32,710	\$ 894,469	\$ 861,760	
Operating Income [1]	\$ 95,751	\$ 152,537	\$ 248,288	\$ 95,751	
Interest Income	\$ -	\$ -	\$ -	\$ -	
Interest Expense [3]	\$ -	\$ 94,998	\$ 94,998	\$ 94,998	
Interest-Customer Deposits	\$ -	\$ -	\$ -	\$ -	
Net Income	\$ 95,751	\$ 57,539	\$ 153,290	\$ 753	
Principal Repayment [5]	\$ -	\$ 57,539	\$ 57,539	\$ 57,539	
TIER (Interest Coverage)					
[1 + 2] + 3	N/A		3.53	1.58	
DSC					
[1 + 2 + 4] + [3 + 5]	N/A		3.07	1.86	
Capital Structure					
Short-term Debt	\$ -	0%	\$ 94,998	\$ 94,998	6.3%
Long-term Debt	\$ -	0%	\$ 1,831,102	\$ 1,831,102	121.1%
Common Equity	\$ (413,442)	100%	\$ (413,442)	\$ (413,442)	-27.3%
Total Capital	\$ (413,442)	100%	\$ 1,512,658	\$ 1,512,658	100%

[A] Staff's recommended permanent rates without WIFA loan
[B] Staff's recommended pro forma surcharge effects with a WIFA loan
[C] Column [A] + Column [B]
[D] Staff's recommended permanent rates without a surcharge

Calculation of Staff Recommended ARCM Surcharge by Meter Size

Principal Payment	57,538.61					
Interest Payment	94,998.29					
GRCF	1.5685					
		i	Metered Size i	Multiplier i	# of Customers	
		1	5/8"x 3/4" Meter	1	250	
		2	3/4" Meter	1.5	602	
		3	1" Meter	2.5	282	
		4	1½" Meter	5	6	
		5	2" Meter	8	46	
		6	3" Meter	15	3	
		7	4" Meter	25	0	
		8	6" Meter	50	0	

A. Take the Principal Payment and multiply it by the GRCF. The result will be the additional revenue required to cover the Principal Payment.

\$	57,539	Times	1.568484333	equals	\$	90,248
----	--------	-------	-------------	--------	----	--------

B. Add the Interest payment to the additional revenue required to cover the Principal Payment. The result will be the Total Increase in Revenue.

\$	94,998	Plus	\$	90,248	equals	\$	185,247
----	--------	------	----	--------	--------	----	---------

1. Multiply the number of customers for each meter size and the corresponding multiplier. Multiply each result by 12. The results will be the Equivalent Annual Bills for each meter size.

# of Customers for meter i		Multiplier i					
250	Times	1	Times	12	equals	3000	
602	Times	1.5	Times	12	equals	10836	
282	Times	2.5	Times	12	equals	8460	
6	Times	5	Times	12	equals	360	
46	Times	8	Times	12	equals	4416	
3	Times	15	Times	12	equals	540	
0	Times	25	Times	12	equals	0	
0	Times	50	Times	12	equals	0	
					Total	<u>27612</u>	

2. Add up all the equivalent annual bills for the different meter sizes. The result will be the Total Equivalent Annual Bills.

3. Divide the Total Increase in Revenue by the Equivalent Annual Bills. The result will be the Monthly Surcharge for 5/8"x 3/4" Meter.

\$	185246.69	=	\$	6.71
	<u>27612</u>			

4. To find the monthly surcharge for each meter size, take the Monthly Surcharge for 5/8"x 3/4" Meter found in step 3 and multiply it by the corresponding meter size multiplier.

Metered Size i	Multiplier i	Times Monthly Surcharge for 5/8"x3/4" Meter	Equals Monthly Surcharge for Meter Size
5/8"x 3/4" Meter	1 \$	6.71 \$	6.71
3/4" Meter	1.5 \$	6.71 \$	10.06
1" Meter	2.5 \$	6.71 \$	16.77
1½" Meter	5 \$	6.71 \$	33.54
2" Meter	8 \$	6.71 \$	53.67
3" Meter	15 \$	6.71 \$	100.63
4" Meter	25 \$	6.71 \$	167.72
6" Meter	50 \$	6.71 \$	335.45

TABLE A
 Conversion Factor Table (Based on a 20-year Loan)

Principal	Years	Line No.	Column A			Column B	Column C	Column D
			Annual Interest	Total Payment	Interest	Annual Payment	Annual Interest	Annual Principal
						Conversion Factor	Payment Conversion Factor	Payment Conversion Factor
\$1	20	1	3.50%	(\$0.07)	(\$0.03)	0.0696	0.0344	0.0352
\$1	20	2	3.75%	(\$0.07)	(\$0.04)	0.0711	0.0369	0.0342
\$1	20	3	4.00%	(\$0.07)	(\$0.04)	0.0727	0.0394	0.0333
\$1	20	4	4.25%	(\$0.07)	(\$0.04)	0.0743	0.0419	0.0324
\$1	20	5	4.50%	(\$0.08)	(\$0.04)	0.0759	0.0444	0.0316
\$1	20	6	4.75%	(\$0.08)	(\$0.05)	0.0775	0.0468	0.0307
\$1	20	7	5.00%	(\$0.08)	(\$0.05)	0.0792	0.0493	0.0299
\$1	20	8	5.25%	(\$0.08)	(\$0.05)	0.0809	0.0518	0.0291
\$1	20	9	5.50%	(\$0.08)	(\$0.05)	0.0825	0.0543	0.0283
\$1	20	10	5.75%	(\$0.08)	(\$0.06)	0.0843	0.0568	0.0275
\$1	20	11	6.00%	(\$0.09)	(\$0.06)	0.0860	0.0593	0.0267
\$1	20	12	6.25%	(\$0.09)	(\$0.06)	0.0877	0.0618	0.0259
\$1	20	13	6.50%	(\$0.09)	(\$0.06)	0.0895	0.0643	0.0252
\$1	20	14	6.75%	(\$0.09)	(\$0.07)	0.0912	0.0668	0.0245
\$1	20	15	7.00%	(\$0.09)	(\$0.07)	0.0930	0.0692	0.0238
\$1	20	16	7.25%	(\$0.09)	(\$0.07)	0.0948	0.0717	0.0231
\$1	20	17	7.50%	(\$0.10)	(\$0.07)	0.0967	0.0742	0.0224
\$1	20	18	7.75%	(\$0.10)	(\$0.08)	0.0985	0.0767	0.0218
\$1	20	19	8.00%	(\$0.10)	(\$0.08)	0.1004	0.0792	0.0211

Instructions to Calculate the Annual Surcharge Revenue Requirement on the Loan

Step 1. Find the Annual Payment on the Loan

Refer to Table A, the Conversion Factor Table. Reading the table from top to bottom, find the interest rate in column A that is equal to the stated annual interest rate of the loan. Reading across the table, find the Annual Payment Conversion Factor in Column B that corresponds with the loan interest rate (in the event that the loan interest rate is different from the interest rates in Table A, use the next higher interest rate that can be found in Table A). Multiply that annual payment conversion factor by the total amount of the loan to calculate the annual debt service on the loan.

Annual payment conversion factor
(*) Times total amount of the loan
(=) Equals annual debt service on the loan

Step 2. Find the Annual Interest Payment on the Loan

Refer to Table A and find the annual interest payment conversion factor in Column C that corresponds with the stated annual interest rate of the loan. Multiply the annual interest payment conversion factor by the total amount of the loan to calculate the annual interest expense on the loan.

Annual interest payment conversion factor
(*) Times total amount of the loan
(=) Equals annual interest expense on the loan

Step 3. Find the Annual Principal Payment on the Loan

Refer to Table A and find the annual principal payment conversion factor in Column D that corresponds with the stated annual interest rate of the loan. Multiply the annual principal payment conversion factor by the total amount of the loan to calculate the annual principal payment on the loan.

Annual principal payment conversion factor
(*) Times total amount of the loan
(=) Equals annual principal payment on the loan

Step 4. Find the Gross Revenue Conversion Factor¹ (GRCF)

The GRCF calculated below is used in step 5.

$$\text{GRCF} = \frac{1}{1 - \text{Effective incremental income tax rate}^2}$$

¹ The gross revenue conversion factor indicates the incremental revenue required to increase operating income by one dollar.

² The effective income tax rate represents the effective tax rate on the incremental income. Use the effective incremental income tax rate of .362442

$$\text{GRCF} = \frac{1}{1 - 0.362442} = \frac{1}{0.637558} = 1.5684$$

Step 5. Find the Incremental Income Tax Factor

The incremental income tax factor is calculated below:

$$\begin{aligned} \text{Incremental Income Tax Factor} &= \text{GRCF} - 1 \\ &= 1.5684 - 1 \\ &= 0.5684 \end{aligned}$$

Step 6. Find the Annual Income Tax Component of the Surcharge Revenue

Multiply the incremental income tax factor by the annual principal payment on the loan determined in step 3 to calculate the income tax component of the annual surcharge revenue.

Incremental income tax conversion factor
(*) Times the annual principal payment on the loan
(=) Equals the annual income tax component of the annual surcharge revenue

Step 7. Find the Debt Service Component of the Annual Surcharge Revenue

Add the annual interest expense on the loan determined in step 2 to the annual principal payment determined in step 3. The sum is the debt service component of the annual surcharge revenue.

Annual interest payment on the loan
(+) Plus annual principal payment
(=) Equals the debt service component of the annual surcharge revenue

Step 8. Find the Total Annual Surcharge Revenue Requirement Needed for the Loan.

Add the annual income tax component determined in step 6 to the annual debt service component determined in step 7. The sum equals the annual surcharge revenue requirement for the loan.

Annual income tax component of the surcharge revenue
(+) Plus annual debt service component of the surcharge revenue
(=) Equals the total annual surcharge revenue requirement for the loan

Step 9. Find the monthly surcharge per customer.

Divide the Result obtained in step 8 by the number of months in a year (12). Divide this result by the number of customers at filing time to obtain the monthly surcharge per customer.

Total annual surcharge revenue requirement needed for the loan

(/) Divided by 12

(=) Total monthly surcharge revenue requirement needed for the loan

(/) Divided number of customers at filing time

(=) Equals the monthly surcharge per customer

MEMORANDUM

TO: Dennis Rogers
Public Utilities Analyst IV
Utilities Division

FROM: Bradley G. Morton *aw for*
Public Utilities Analyst II
Utilities Division

THRU: Connie Walczak *aw*
Consumer Services Manager
Utilities Division

DATE: May 10, 2005

RE: VALLEY UTILITIES WATER COMPANY, INC.
Docket No. W-01412A-04-0736

COMPANY HISTORY

Valley Utilities Water Company, Inc. ("Valley Utilities" or "Company") was granted a Certificate of Convenience and Necessity ("CC&N") to provide water utility service in Glendale, Arizona, Maricopa County, pursuant to authority granted by the Arizona Corporation Commission ("Commission") in Decision No. 55823, dated December 23, 1987.

The current rates have been in effect since October 1, 2000 per Decision No. 62908.

Valley Utilities is an "A" Corporation in good standing with the Corporations Division of the Commission. The Company was incorporated July 17, 1973.

COMPLAINT HISTORY

A search of Consumer Services complaint files reveal the following customer complaints were filed against Valley Utilities:

2002 - one complaint - customer didn't request a transfer of service from the builder, service was disconnected. Company billed after hours installation charges, which the builder split with the customer. Customer was satisfied.
Zero inquiries
Zero opinions

2003 - Zero complaints

One inquiry - customer questioned termination /disconnection rules.
Explanation provided.
Zero opinions

2004 - Three complaints – one, customer questioned high costs for mainline and arsenic treatment. One, customer questioned meter re-read charge on his bill and a customer was disconnected for an insufficient check.
Two inquiries – both concerning late payment charges for bills received late. Company provided postmarked envelopes in evidence of late receipt.
Zero opinions

2005 - One complaint, regarding a late payment charge due to change of address.
Zero inquiries
Six opinions, all opposed to a rate increase.

All complaints have been resolved.

SUFFICIENCY STATUS

Valley Utilities application met sufficiency status on November 5, 2004.

AFFIDAVIT OF MAILING

Valley Utilities Affidavit of Mailing of the Customer Notification was filed on February 9, 2005.

ANNUAL REPORT FOR UTILITIES DIVISION

Records indicate that the Company filed its 2003 Annual Report on April 5, 2004.

BILL FORMAT COMPLIANCE

A review of Valley Utilities bill format indicates compliance with R14-2-409.B.2.a thru R14-2-409.B.2.j of the Arizona Administrative Code, Title 14, Chapter 4.

CORPORATIONS DIVISION STATUS

The Corporations Division of the Commission reflects that Valley Utilities is good standing.

CROSS-CONNECTION/BACKFLOW TARIFF

The Cross-Connection/Backflow Tariff was approved in Decision No. 62908.

CURTAILMENT TARIFF

None on file.

HEARING DATE

A hearing date has been set for July 14, 2005.

INTERVENORS

No request for intervention has been filed at this time.

Cc: Engineering
File

SCOTT, JR.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

JEFF HATCH-MILLER, Chairman
WILLIAM A. MUNDELL
MARC SPITZER
MIKE GLEASON
KRISTIN K. MAYES

IN THE MATTER OF THE APPLICATION OF
VALLEY UTILITIES WATER COMPANY, INC.
FOR AN INCREASE IN ITS WATER RATES FOR
CUSTOMERS WITHIN MARICOPA COUNTY,
ARIZONA.

DOCKET NO. W-01412A-04-0736

IN THE MATTER OF THE APPLICATION OF
VALLEY UTILITIES WATER COMPANY, INC.
FOR AUTHORITY TO ISSUE PROMISSORY
NOTE(S) AND OTHER EVIDENCES OF
INDEBTEDNESS PAYABLE AT PERIODS OF
MORE THAN TWELVE MONTHS AFTER THE
DATE OF ISSUANCE.

DOCKET NO. W-01412A-04-0849

DIRECT TESTIMONY

OF

MARLIN SCOTT, JR.

UTILITIES ENGINEER

UTILITIES DIVISION

MAY 11, 2005

TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY	i
Conclusions	
Recommendations	
DIRECT TESTIMONY	
Introduction.....	1
Purpose of Testimony	2
Engineering Reports.....	2
EXHIBIT MSJ – A, Rate Case Engineering Report	
A. Location of Company	1
B. Description of Water System.....	1
C. Water Use.....	3
D. Growth	4
E. MCESD Compliance	4
F. ADWR Compliance.....	5
G. ACC Compliance.....	5
H. Pro Forma Plant Adjustment.....	5
I. Depreciation Rates	5
J. Service Line and Meter Installation Charges.....	6
K. Curtailment Plan Tariff.....	6
FIGURES	
A-1. Maricopa County Map	8
A-2. Certificated Area.....	9
B-1. System Schematic	10
C-1. Water Use.....	11
D-1. Growth	11
TABLES	
E-1. Water Testing Cost	12
I-1. Depreciation Rates.....	13
J-1. Service Line and Meter Installation Charges.....	14
ATTACHMENT	
K-1. Curtailment Plan Tariff.....	15
EXHIBIT MSJ – B, Financing Engineering Report	
Financing for Arsenic Treatment Plant.....	1

EXECUTIVE SUMMARY
VALLEY UTILITIES WATER COMPANY, INC.
DOCKET NO. W-01412A-04-0736
&
DOCKET NO. W-01412A-04-0849

CONCLUSIONS

- A. The Valley Utilities Water Company, Inc. ("Company") has a water loss of 1.96% which is within acceptable limits.
- B. The Company's current well source and storage capacity are adequate to serve the present customer base and reasonable growth.
- C. The Maricopa County Environmental Service Department ("MCESD") has reported no major deficiencies and based on data submitted to MCESD, MCESD has determined that the Company's system, PWS No. 07-079, is currently delivering water that meets water quality standards required by the Arizona Administrative Code, Title 18, Chapter 4.
- D. The Company reported the arsenic concentrations for its Well No. 1 at 12 ppb, Well No. 2 at 12 ppb, Well No. 3 at 7 ppb, Well No. 4 at 12 ppb, Well No. 5 at 13 ppb and Well No. 6 at 11 ppb. The Company has submitted a financing application, under Docket No. W-01412A-04-0849, requesting financing approval to purchase and construct water treatment facilities for arsenic removal. (See RECOMMENDATION No. 6.)
- E. The Company is located in the Arizona Department of Water Resources Phoenix Active Management Area ("AMA") and is in compliance with AMA water use and monitoring requirements.
- F. The Company has no outstanding Arizona Corporation Commission compliance issues.

RECOMMENDATIONS

- 1. Staff recommends its average annual cost of \$4,014 be adopted for the water testing expense in this proceeding.
- 2. Staff recommends that \$1,883,600 of reported post-test year plant items not be included in rate base.
- 3. Staff recommends that the Company use the depreciation rates by individual National Association of Regulatory Utility Commissioners category presented in Table I-1 on a going forward basis.
- 4. Staff recommends the acceptance of the Company's proposed service line and meter installation charges.

5. Staff recommends that the Company file a Curtailment Plan Tariff in the form of Attachment K-1. This tariff shall be docketed as a compliance item in this case within 45 days of the effective date of an order in this proceeding for review and certification by Staff.

6. Staff concludes that the arsenic treatment facilities being proposed in the financing application are appropriate and recommends the estimated capital costs and operation & maintenance costs be used for purposes of the financing request.

1 **INTRODUCTION**

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

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

6
7 **Q. How long have you been employed by the Commission?**

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

9
10 **Q. Please list your duties and responsibilities.**

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

17
18 **Q. How many companies have you analyzed for the Utilities Division?**

19 A. I have analyzed approximately 395 companies covering various responsibilities for the
20 Utilities Division.

21
22 **Q. Have you previously testified before this Commission?**

23 A. Yes, I have testified in 44 proceedings before this Commission.

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

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

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

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

9
10 **Q. Please state your professional membership, registrations, and licenses.**

11 A. I am a member of the National Association of Regulatory Utility Commissioners
12 (“NARUC”) Staff Subcommittee on Water.

13
14 **PURPOSE OF TESTIMONY**

15 **Q. Were you assigned to provide Staff’s engineering analysis and recommendation for**
16 **the Valley Utilities Water Company, Inc. (“Company”) in this proceeding?**

17 A. Yes. I reviewed the Company’s rates and financing applications and I inspected the water
18 system on March 11, 2005. This testimony and the attached Exhibits MSJ-A and MSJ-B
19 present Staff’s engineering evaluations.

20
21 **ENGINEERING REPORTS**

22 **Q. Please describe the attached Engineering Reports, Exhibits MSJ-A and MSJ-B.**

23 A. Exhibit MSJ-A presents the details and analyses of Staff’s findings for the rate case
24 portion, and is attached to this direct testimony. Exhibit MSJ-A contains the following
25 major topics: (1) a description of the water system and the processes, (2) water use, (3)
26 growth, (4) compliance with the rules of the Maricopa County Environmental Services

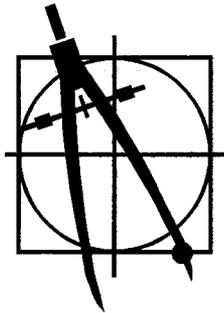
1 Department, Arizona Department of Water Resources, and the Arizona Corporation
2 Commission, (5) pro forma plant adjustments, (6) depreciation rates, (7) service line and
3 meter installation charges, and (8) curtailment plan tariff.

4
5 Exhibit MSJ-B presents Staff's findings for the financing case portion, and is attached to
6 this direct testimony. Exhibit MSJ-B contains the discussion for the financing application
7 to fund the purchase and construction of arsenic treatment plant.

8
9 Staff's conclusions and recommendations from these engineering reports are contained in
10 the "EXECUTIVE SUMMARY" above.

11
12 **Q. Does this conclude your direct testimony?**

13 **A. Yes, it does.**



**Engineering Report
For
Valley Utilities Water Company, Inc.
Docket No. W-01412A-04-0736 (Rates)**

April 13, 2005

A. LOCATION OF VALLEY UTILITIES WATER COMPANY, INC. (“COMPANY”)

The Company serves a community located within a County strip, just east of Luke Air Force Base, in the Phoenix West Valley. Figure A-1 shows the location of the Company within Maricopa County and Figure A-2 shows the approximate five square-miles of certificated area.

B. DESCRIPTION OF WATER SYSTEM

The water system was field inspected on March 11, 2005, by Marlin Scott, Jr., Staff Utilities Engineer, in the accompaniment of Scott Keith, representing the Company.

The operation of the water system consisted of six wells, five storage tanks, four booster stations and a distribution system serving over 1,200 customers during the test year of 2003. A system schematic is shown in Figure B-1 with detailed plant facility descriptions as follows:

Table 1. Well Data

Well #	ADWR ID No.	Pump Hp Submersibles	* Flow Rate (GPM)	Casing Size & Depth	Meter Size	Year Drilled
#1	55-639720	20	60	12" x 580'	3"	1946
#2	55-639721	30	125	10" x 600'	3"	1969
#3	55-639723	30	110	8" x 400'	4"	1968
#4	55-639722	30	130	12" x 840'	4"	1971
#5	55-503273	60	325	20" x 811'	6"	1982
#6	55-580082	125	310	12" x 710'	8"	2002
		TOTAL:	1,060 GPM			

* Note: Flow rates in gallons per minute (“GPM”) as of March 2005.

Table 2. Storage Tanks

Capacity (Gallons)	Quantity (Each)	Location
560,000	1	@ Maryland Booster Station
200,000	1	@ Bethany Hills West
100,000	3	Two tanks at Glendale Yard & one tank at Lux Yard
Totals: 1,060,000 gal.	5	

Table 3. Booster Systems

Location	Plant Facilities	Storage Tanks (From Table 2)
Glendale Yard	50, 40 & 20-Hp booster pumps	Two 100,000 gal. storage tanks
(Wells #1 & #2)	5,000 gal. pressure tank	
Lux Yard	30-Hp booster pumps, 2 each	100,000 gal. storage tank
(Well #3)	20-Hp booster pump	
	5,000 gallon pressure tank	
Bethany Hills West	40-Hp booster pumps, 3 each	200,000 gal. storage tank
(Wells #4, #5 & #6)	7,500 gal. pressure tank	
Maryland Booster Station	50,50, 15 & 15-Hp booster pumps	560,000 gal. storage tank
	10,000 gal. pressure tank	

Table 4. Water Mains

Diameter	Material	Length
4-inch	AC & PVC	10,000 ft.
6-inch	AC & DIP	53,485 ft.
8-inch	AC & DIP	28,786 ft.
10-inch	DIP	2,952 ft.
12-inch	AC & DIP	2,992 ft.
	Total:	98,215 ft.

Table 5. Customer Meters

Size	Quantity
5/8 x 3/4-inch	256
3/4-inch	593
1- inch	308
1-1/2-inch	6
2-inch	43
3-inch	4
Total:	1,210

Table 6. Fire Hydrants

Size	Quantity
Standard	85

Table 7. Structures & Treatment Equipment

Structures & Treatment Equipment
Wells #1 & #2: Liquid chlorination unit and 175 kW diesel generator
Well #3: Liquid chlorination unit
Well #4: Liquid chlorination unit
Maryland Booster Station: Tablet chlorination unit and 125 kW diesel generator

C. WATER USE

Water Sold

Based on the information provided by the Company, water use for the year 2003 is presented in Figure C-1. Customer consumption experienced a high monthly average water use of 882 gallons per day (“GPD”) per connection and a low monthly average water use of 388 GPD per connection for an average annual use of 632 GPD per connection.

Non-Account Water

Non-account water should be 10% or less. The Company reported 271,203,090 gallons pumped and 265,896,450 gallons sold, resulting in a water loss of 1.96%. This 1.96% is within the acceptable limits.

System Analysis

The water system's current source capacity of 1,060 GPM and storage capacity of 1,060,000 gallons is adequate to serve the present customer base and reasonable growth.

D. GROWTH

Figure D-1 depicts the customer growth using linear regression analysis. The number of service connections was obtained from annual reports submitted to the Commission. During the test year 2003, the Company had over 1,200 customers and it is projected that the Company could have approximately 1,580 customers by December 2008.

**E. MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT
("MCESD") COMPLIANCE**Compliance

MCESD reported the Company's system, PWS No. 07-079, has no major deficiencies and based on data submitted to MCESD; MCESD has determined that this system is currently delivering water that meets water quality standards required by the Arizona Administrative Code, Title 18, Chapter 4.

Water Testing Expense

The Company reported its water testing expense at \$1,599 for the 2003 test year. Staff has reviewed this reported amount and has made adjustments to determine its average annual cost of \$4,014 as shown in Table E-1. Staff recommends an average annual cost of \$4,014 be adopted for this proceeding.

Arsenic

The U.S. Environmental Protection Agency ("EPA") has reduced the arsenic maximum contaminant level ("MCL") in drinking water from 50 parts per billion ("ppb") to 10 ppb. The date for compliance with the new MCL is January 23rd, 2006.

The Company reported the arsenic concentrations for its Well No. 1 at 12 ppb, Well No. 2 at 12 ppb, Well No. 3 at 7 ppb, Well No. 4 at 12 ppb, Well No. 5 at 13 ppb and Well No. 6 at 11 ppb. The Company has submitted a financing application, under Docket No. W-01412A-04-0849, requesting a Water Infrastructure Finance Authority of Arizona ("WIFA") loan approval to

purchase and construct water treatment facilities for arsenic removal. (See EXHIBIT MSJ-B.) The Arizona Corporation Commission ("ACC") recently approved an Arsenic Impact Fee Tariff for the Company in Decision No. 67669, dated March 9, 2005, to help pay for debt service and/or principle on the requested WIFA loan.

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

The Company is located in the Phoenix Active Management Area ("AMA") and is subject to AMA reporting and conservation requirements. Since the Company pumps less than 250 acre-feet of water per year, it is considered a small provider by ADWR and is subject to conservation rules. The Company is required to monitor and report water use. ADWR reported that the Company has complied with its water use and monitoring requirements.

G. ACC COMPLIANCE

According to the Utilities Division Manager of Compliance, the Company has no outstanding ACC compliance issues.

H. PRO FORMA PLANT ADJUSTMENT

Post-Test Year Plant

In its rate application filing, the Company submitted \$1,883,600 worth of post-test year plant for arsenic treatment plant facilities for its Well Nos. 1, 2, 4, 5 and 6. At the time of its inspection (March 11, 2005), Staff noted that these treatment facilities had not been constructed. Therefore, Staff recommends that the reported post-test year plant items not be included in rate base.

I. DEPRECIATION RATES

The Company has been using a depreciation rate of 2.50% in every National Association of Regulatory Utility Commissioners ("NARUC") plant category. In recent orders, the Commission has been shifting away from the use of a composite rate in favor of individual depreciation rates by NARUC category. (For example, a uniform 2.50% composite rate would not really be appropriate for either vehicles or transmission mains and instead, different specific retirement rates should be used.)

Staff has developed typical and customary depreciation rates within a range of anticipated equipment life. These rates are presented in Table I-1 and it is recommended that the Company use these depreciation rates by individual NARUC category on a going forward basis.

J. SERVICE LINE AND METER INSTALLATION CHARGES

The Company has requested changes to its service line and meter installation charges. These charges are refundable advances and the Company's proposed charges are within Staff's recommended range for these charges. Therefore, Staff recommends the acceptance of the Company's proposed installation charges which includes the use of actual cost for meter sizes of 8-inch and larger as shown in Table J-1.

K. CURTAILMENT PLAN TARIFF

A Curtailment Plan Tariff ("CPT") is an effective tool to allow a water company to manage its resources during periods of shortages due to pump breakdowns, droughts, or other unforeseeable events. Since the Company does not have this type of tariff, this rate proceeding provides an opportune time to prepare and file such a tariff.

The Company filed a standard CPT with its rate application. The Company filed Staff's standard CPT template which is geared toward small water systems. Staff is proposing an alternative tariff form that is similar to Class A (large) company approved tariffs. Staff has attached this alternative tariff as Attachment K-1.

Staff recommends that the Company file a CPT in the form of the attached. This tariff shall be docketed as a compliance item under this same docket number within 45 days of the effective date of an order in this proceeding for review and certification by Staff.

FIGURES

Maricopa County MapFigure A-1
Certificated Area Figure A-2
System Schematic Figure B-1
Water Use..... Figure C-1
GrowthFigure D-1

TABLES

Water Testing Cost Table E-1
Depreciation Rates Table I-1
Service Line and Meter Installation Charges..... Table J-1

ATTACHMENT

Curtailment Plan Tariff.....Attachment K-1



Figure A-1. Maricopa County Map

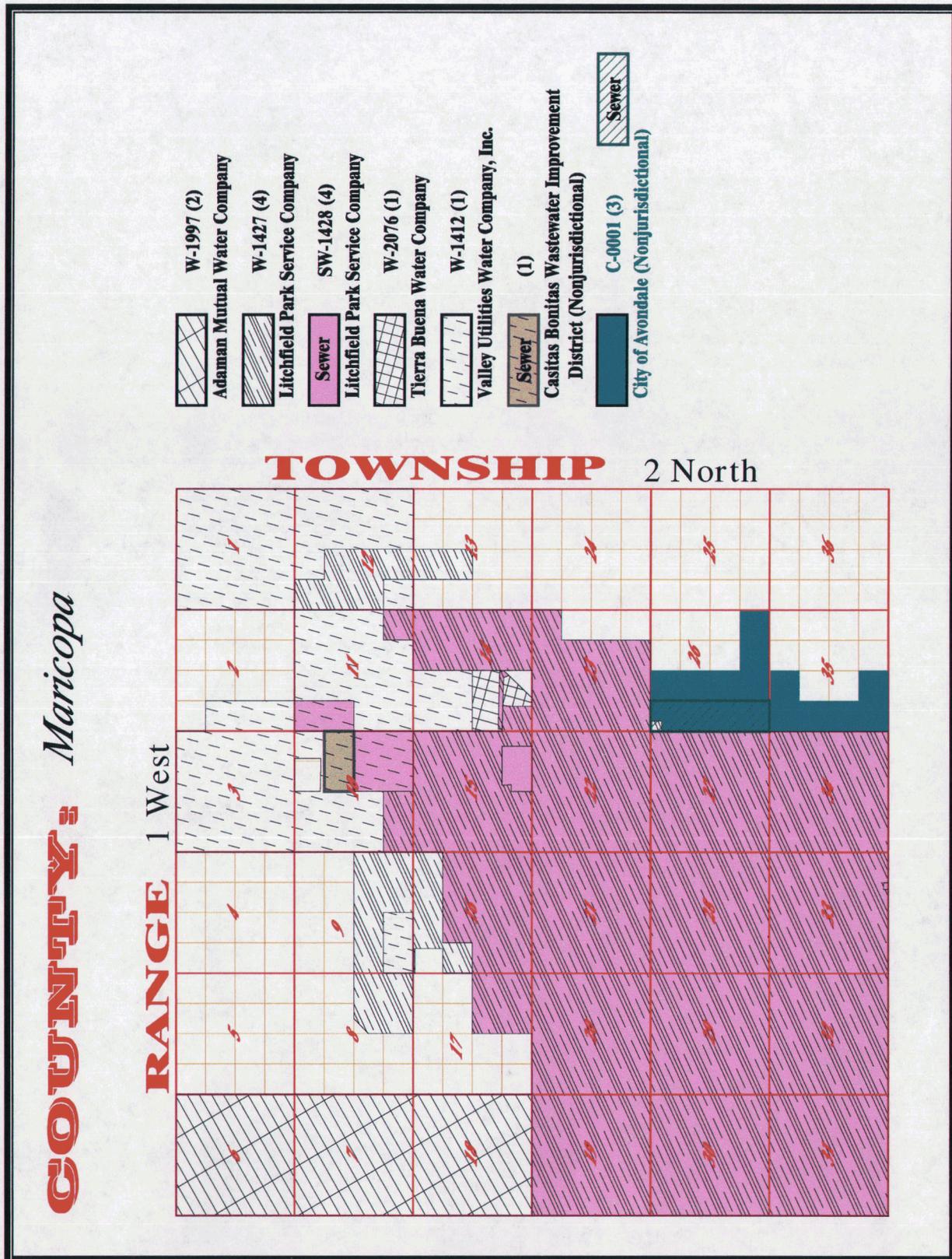


Figure A-2. Certificated Area

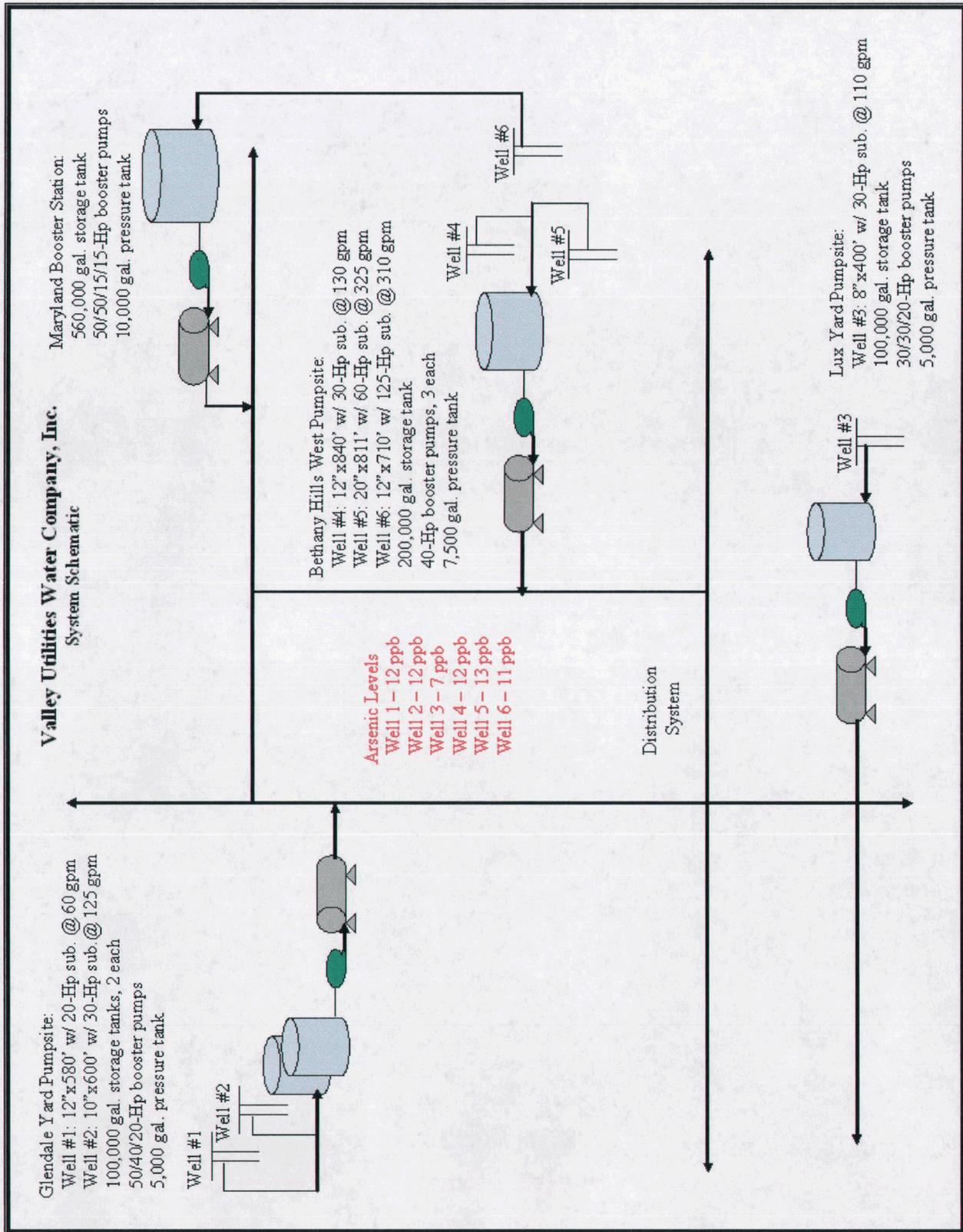


Figure B-1. System Schematic

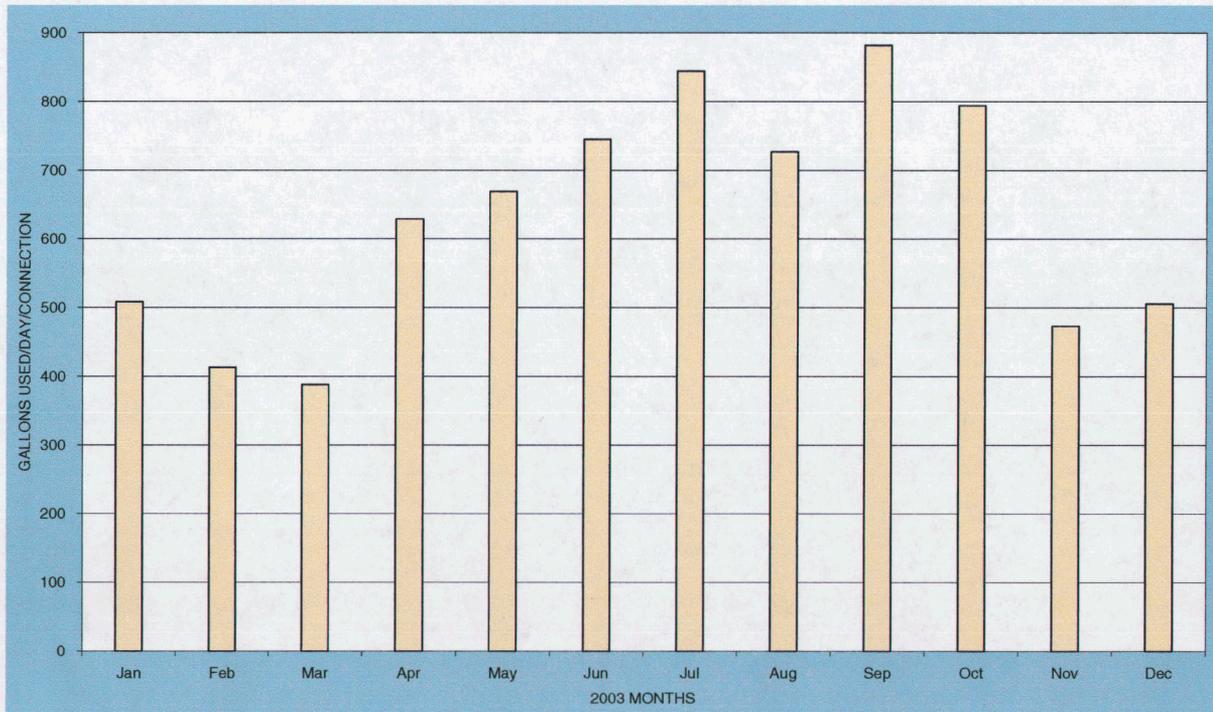


Figure C-1. Water Use

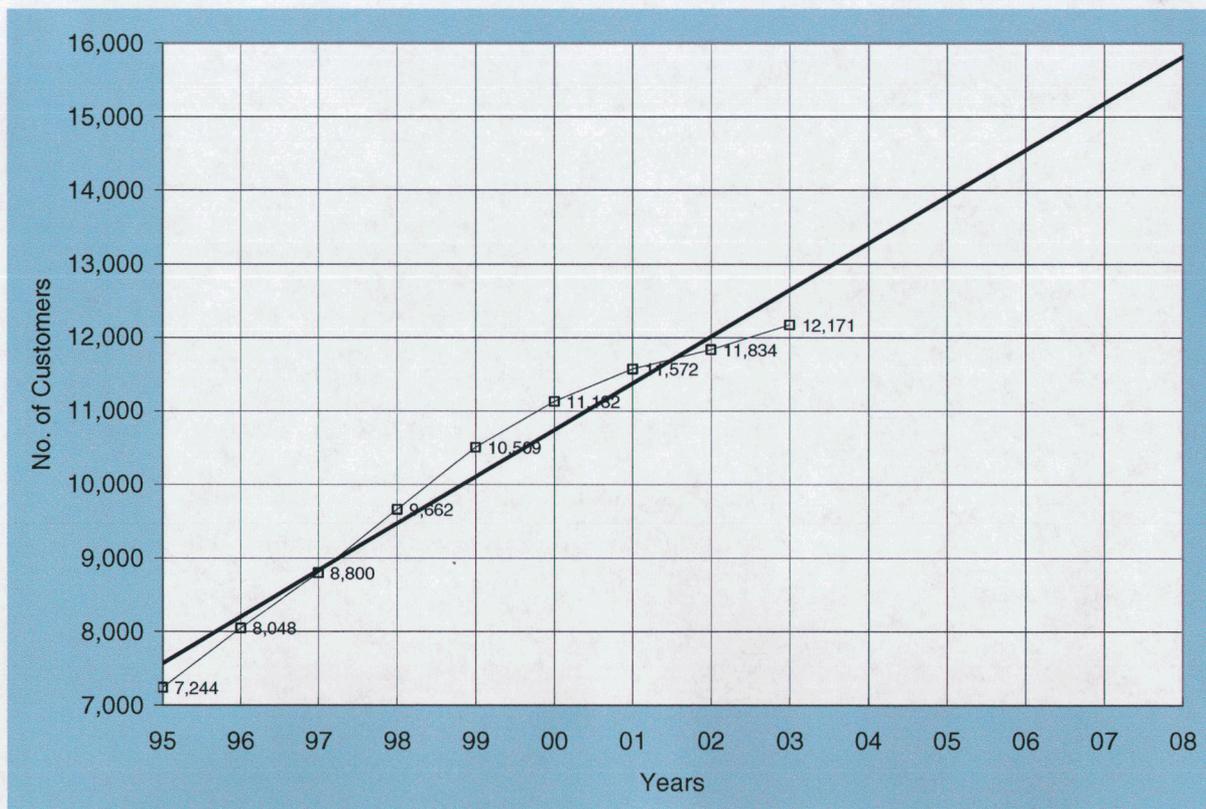


Figure D-1. Growth

Table E-1. Water Testing Cost

Monitoring for 3 POEs	Cost per test	No. of tests per 3 years	Total 3 year cost	Annual Cost
Total coliform – 5 samples/month	\$15	180	\$2,700	\$900
Inorganics – per 3 years	MAP	MAP	MAP	MAP
Radiochemical – per 4 years	MAP	MAP	MAP	MAP
Phase II and V:				
Nitrate – 4 samples per year	\$20	12	\$240	\$80
Nitrite – once per period	MAP	MAP	MAP	MAP
Asbestos – per 9 years	MAP	MAP	MAP	MAP
MAP – IOCs, SOCs, & VOCs	MAP	MAP	MAP	\$2,734
Lead & Copper – 20 samples/3-years	\$45	20	\$900	\$300
Total				\$4,014

Note: ADEQ - MAP invoice for the 2005 Calendar Year is \$2,734.00 for 1,200 service connections.

Table I-1. Depreciation Rates

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

Table J-1. Service Line and Meter Installation Charges

Meter Size	Current Charges	Proposed Service Line Charges	Proposed Meter Charges	RECOMMENDED Total Proposed Charges
5/8 x3/4-inch	\$455	\$385	\$135	\$520
3/4-inch	\$515	\$385	\$215	\$600
1-inch	\$590	\$435	\$255	\$690
1-1/2-inch	\$820	\$470	\$465	\$935
2-inch Turbine	\$1,380	\$630	\$965	\$1,595
2-inch Compound	\$2,010	\$630	\$1,690	\$2,320
3-inch Turbine	\$1,935	\$805	\$1,470	\$2,275
3-inch Compound	\$2,650	\$845	\$2,265	\$3,110
4-inch Turbine	\$3,030	\$1,170	\$2,350	\$3,520
4-inch Compound	\$3,835	\$1,230	\$3,245	\$4,475
6-inch Turbine	\$3,535	\$1,730	\$4,545	\$6,275
6-inch Compound	\$7,130	\$1,770	\$6,280	\$8,050
8-inch & Larger	At Cost	At Cost	At Cost	At Cost

Attachment K-1

**CURTAILMENT TARIFF FOR VALLEY UTILITIES WATER COMPANY, INC.
PWS No. 07-079**

APPLICABILITY:

To all customers served by **Valley Utilities Water Company, Inc.** ("Company") where the Company determines that temporary water shortages might lead to water system outages, whether caused by drought, fire or other disaster, diminishing supplies, contamination, equipment failure, increased demands or other causes.

PURPOSE:

To implement procedures to cause all customers, regardless of customer class, to reduce water use by compliance with specified water conservation measures and other actions required to reduce each customer's normal water use.

NOTICE OF CURTAILMENT IMPLEMENTATION:

The Company will notify customers of the need to curtail water use, the stage of curtailment implemented, and the extent of curtailment required, by using one or more of the most appropriate methods listed below, as determined by the Company:

1. A notice published in a local newspaper of general circulation that serves the targeted area.
2. A bill insert or a notice on the customer's monthly bill.
3. Radio and television announcements in the targeted area.
4. Signs, leaflets, or other means of providing public notice as determined by the Company.

The Company will notify the customers when such curtailment is no longer needed.

CURTAILMENT STAGES:

Stage One:

Voluntary water use reduction by customers of 25% or less, as specified by the Company, by adhering to the following practices:

1. No washing of streets, sidewalks, driveways, parking lots, service station aprons or other exterior features.
2. No washing of automobiles, trucks, trailers, trailer houses or any type of mobile equipment.
3. Exterior landscape watering not more frequently than once every 2 days.

4. Exterior landscape automatic watering timers reduced from their normal duration setting.
5. No filling of swimming or wading pools.
6. Restaurants to serve drinking water only upon request.
7. Hotels, motels and other temporary lodging facilities to notify their customers that towels and linens will be washed upon request only, and that their water use should be limited.
8. Use of water from fire hydrants only in case of fire.
9. Do not waste water. *EXAMPLES:* Do not let water run down streets and repair any leaking plumbing fittings.
10. Reduce other water uses such that the targeted reduction from the customer's historic water use is achieved.

Stage Two:

Voluntary water use reduction by customers of more than 25%, as specified by the Company, by adhering to the practices listed under Stage One and the following practices:

1. Exterior landscape watering not more frequently than once every 3 days.
2. Exterior landscape automatic watering timers further reduced from their normal duration setting.
3. Reduce other water uses such that the targeted reduction from the customer's historic water use is achieved.
4. No use of construction water services for dust control, soil compaction, or similar purposes, unless required by the Maricopa County Environmental Services Department, the Arizona Department of Environmental Quality, or other agency with jurisdiction over air quality.

Stage Three:

Mandatory water use reduction by customers to a level specified by the Company to meet health and safety requirements, by adhering to the practices listed under Stage One and Stage Two and the following practices:

1. Exterior landscape watering not more frequently than once every 4 days.
2. Exterior landscape automatic watering timers reduced from their normal duration setting.
3. Reduce other water uses such that the targeted water use reduction is achieved.
4. No use of construction water services.
5. Have on hand a minimum of a 3-day emergency supply of drinking water.

Stage Four:

Mandatory water use reductions by customers, when Stage Three conditions are expected to last longer than two months, by adhering to the practices listed under Stage One through Stage Three, together with the Targeted Water Use Reduction Levels set forth below.

EXEMPTIONS AND APPEALS:

Reductions under Stages One, Two, Three and Four do not apply to water directly used for public health and safety purposes.

A customer who wishes an exemption from the targeted water use reduction must submit a written request to the Company within ten days of the Company's notice of curtailment. Following review of the request, the Company will decide whether the targeted water use reduction for that customer should be changed. The Company's decision shall be final.

TARGETED WATER USE REDUCTION LEVEL:

All water bills rendered during a Stage Four curtailment will show the customer's targeted water use reduction percentage, together with all other information the Company considers necessary for the customer to achieve the targeted water use reduction level. If the water bill shows that the customer used water above the targeted water use level, the water bill will include a notice to the customer to end all outdoor water use and that failure to comply will result in temporary loss of service. If the customer exceeds the targeted water use level in the following month, the water bill for that month will include a notice to the customer that water service will be terminated for failure to comply with the curtailment procedures imposed by the Company during supply shortages unless the customer agrees to take actions satisfactory to the Company to end unauthorized use of water. A customer's water service will not be terminated for this type of failure to comply without first receiving notice from the Company of its intent to terminate service.

If a customer does not take corrective actions satisfactory to the Company and water service is subsequently terminated and such customer believes water service was terminated in error, the customer should call the Company's local office to discuss the basis of the Company's termination of water service with a customer service representative or office manager. If a customer believes that water service was terminated improperly, the customer may contact the Commission's Consumer Services Section at 1-800-222-7000 to initiate an investigation.

TERMS AND CONDITIONS:

Any customer whose service is terminated for failure to comply with the specific actions required shall not have service restored until such customer demonstrates compliance with such specific actions, satisfactory to the Company, and pays any past due water charges plus a reconnection charge as provided for in the appropriate tariff schedule.

SPECIAL PROVISIONS:

1. This curtailment plan shall become part of the Arizona Department of Environmental Quality Emergency Operations Plan for the Company.

2. The Company shall notify its customers of this new tariff as part of its next regularly scheduled billing after the effective date of the tariff or no later than sixty (60) days after the effective date of the tariff.
3. The Company shall provide a copy of the curtailment tariff to any customer, upon request.
4. If curtailment efforts do not reduce water use sufficiently and localized water shortages result, the Company will inform the customers of the availability of alternative water supplies in other areas of the Company's water system or neighboring water systems.
5. The Company shall notify the Consumer Service Section of the Utilities Division of the Arizona Corporation Commission as least twelve (12) hours prior to entering either of curtailment Stages 2, 3, or 4. The notification to the Consumer Service Section shall include the cause, present conditions, and expected duration for the water service curtailment.

MEMORANDUM

DATE: April 14, 2005

TO: Dennis Rogers
Public Utilities Analyst IV
Utilities Division

FROM: Marlin Scott, Jr. 
Utilities Engineer
Utilities Division

RE: Valley Utilities Water Company, Inc.
Docket No. W-01412A-04-0849 (Financing)

Introduction

Valley Utilities Water Company, Inc. (“Company”) has submitted a financing application to fund the purchase and construction of arsenic treatment plant. The Company operates a water system in the Phoenix West Valley in Maricopa County.

Existing Water System

The Company’s system serves a community located within a County strip, just east of Luke Air Force Base and consists of six wells, five storage tanks, four booster stations and a distribution system serving approximately 1,250 service connections. The arsenic concentrations reported are; Well Nos. 1, 2 and 4 at 12 ppb, Well No. 3 at 7 ppb, Well No. 5 at 13 ppb and Well No. 6 at 11 ppb.

Financing Application

The Company is requesting financing approval for a \$1,926,100 loan from the Water Infrastructure Finance Authority (“WIFA”). This loan is needed to finance the purchase and construction of arsenic removal equipment to meet the new arsenic standard. The cost estimate in the financing request was produced by Narasimham Consulting Services, Inc, (“Narasimham”), a consulting firm hired by the Company. Narasimham conducted an arsenic treatment study for the Company using treatment model methods presented in the Arizona Department of Environmental Quality’s Arsenic Master Plan (“AMP”) guidelines. A pilot study was conducted at Company Well Nos. 4, 5 and 6 from April 2003 to September 2003 and a final study report, titled “Arsenic Treatment Study – Final Report” was completed in May 2004. The study recommended using absorption media

treatment method with a total treatment system cost of \$1,926,100 for treatment of five of the six wells. A breakdown cost of the arsenic treatment systems are as follows:

Capital and Operation & Maintenance (“O&M”) Costs Summary

A. Arsenic Treatment Systems for Well Nos. 4, 5 and 6:

1. Capital Cost:

Residuals handling facilities	\$ 28,000
Prefiltration	\$ 28,000
GFH system facilities	\$ 363,500
Concrete support for treatment vessels	\$ 61,400
Piping, I&C, electrical, yard piping allowances	\$ 207,800

Sub-total facility cost:	\$ 788,700
Site aesthetics, 25%	\$ 197,175
Contingency, 20%	\$ 197,175
Taxes & bonding, 8.5%	\$ 100,550
pH adjustment to 6.8, treatment allowance	\$ 100,000

Total estimated GFH facility cost:	\$1,383,600

2. Annual O&M cost: \$135,400

B. Arsenic Treatment Systems for Well Nos. 1 and 2:

1. Capital Cost:

Modular treatment equipment (For 3 vessel system)	\$ 500,000
Taxes & bonding, 8.5%	\$ 42,500

Total facility cost:	\$ 542,500

2. Annual O&M cost: \$81,200

C. Summaries:

1. Total Estimated Capital Cost: \$1,926,100
2. Total Estimated Annual O&M Cost: \$216,600

The Company evaluated other options like blending and drilling/deepening new wells in order to meet the new arsenic standard, but due to the high arsenic concentration and its fluctuation in this particular area, treating the water source seems to be the only available solution.

Conclusion and Recommendation

Narasimham conducted an arsenic treatment study for the Company and recommended using the absorption media treatment method to reduce arsenic levels in five of the Company's six wells. Staff concludes that the arsenic treatment facilities are appropriate and the estimated capital costs and O&M costs presented herein are reasonable for purposes of this financing request.