

220

BEFORE THE ARIZONA CORPORATION COMMISSION

Arizona Corporation Commission

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

CARL J. KUNASEK  
Chairman  
JIM IRVIN  
Commissioner  
WILLIAM A. MUNDELL  
Commissioner

2000 DEC 15 P 4: 13

AZ CORP COMMISSION  
DOCUMENT CONTROL

DOCKETED

DEC 15 2000

DOCKETED BY [Signature]

IN THE MATTER OF THE APPLICATION  
OF RIO VERDE UTILITIES, INC. FOR  
AN INCREASE IN ITS WATER AND  
WASTEWATER RATES FOR CUSTOMERS  
WITHIN MARICOPA COUNTY, ARIZONA.

DOCKET NO. WS-02156A-00-0321

IN THE MATTER OF THE APPLICATION  
OF RIO VERDE UTILITIES, 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. WS-02156A-00-0323~~  
WS-02156A-00-0323

STAFF'S NOTICE OF FILING TESTIMONY

Staff of the Arizona Corporation Commission hereby files the Direct Testimony of Ronald E. Ludders, Rodney L. Moore, John A. Chelus, and William A. Rigsby, in the above-referenced matters.

RESPECTFULLY SUBMITTED this 15<sup>th</sup> day of December, 2000.

Teena Wolfe  
Attorney, Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007  
(602) 542-3402

The original and fifteen  
copies of the foregoing  
were filed this 15<sup>th</sup> day  
of December, 2000, with:

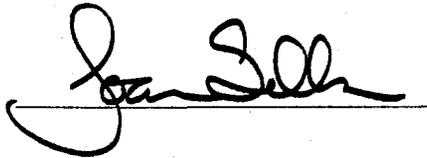
Docket Control  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

1 Copies of the foregoing were  
2 mailed the 15<sup>th</sup> day of  
3 December, 2000, to:

4 Richard L. Sallquist  
5 Sallquist & Drummond, P.C.  
6 2525 E. Arizona Biltmore Circle, Suite 117  
7 Phoenix, Arizona 85016-2129  
8 Attorneys for Rio Verde Utilities, Inc.

9 Thomas L. Mumaw  
10 Snell & Wilmer  
11 One Arizona Center  
12 Phoenix, Arizona 85004  
13 Attorneys for Rio Verde Community Association  
14 and Rio Verde Country Club

15 Scott Wakefield  
16 Residential Utility Consumer Office  
17 2828 North Central Avenue  
18 Suite 1200  
19 Phoenix, Arizona . 85004

20  
21  
22  
23  
24  
25  
26  
27  
28  


ORIGINAL

RECEIVED

2000 DEC 15 P 3:39

AZ CORP COMMISSION  
DOCUMENT CONTROL

DIRECT

TESTIMONY OF

RONALD E. LUDDERS  
RODNEY L. MOORE  
JOHN A. CHELUS  
WILLIAM A. RIGSBY

DOCKET NOS. WS-02156A-00-0321  
[REDACTED]

December 15, 2000

# LUDDERS

BEFORE THE ARIZONA CORPORATION COMMISSION

CARL J. KUNASEK

Chairman

JIM IRVIN

Commissioner

WILLIAM A. MUNDELL

Commissioner

IN THE MATTER OF THE APPLICATION OF )  
RIO VERDE UTILITIES, INC., FOR AN )  
INCREASE IN ITS WATER AND WASTE- )  
WATER RATES FOR CUSTOMERS WITHIN )  
MARICOPA COUNTY, ARIZONA, AND 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 NOS. WS-02156A-00-0321

WS-02156A-00-0323

DIRECT

TESTIMONY

OF

RONALD E. LUDDERS

SENIOR RATE ANALYST

UTILITIES DIVISION

DECEMBER 15, 2000

## TABLE OF CONTENTS

	<u>PAGE</u>
Executive Summary	
Introduction.....	1
Purpose of Testimony .....	3
Background .....	3
Summary of Staff's Recommendations .....	4
Rate of Return.....	6
Original Cost Rate Base.....	6
Operating Revenue.....	10
Operating Expenses .....	11
Revenue Requirement .....	14
Rate Design .....	14
Staff Recommendations .....	17

### SCHEDULES

Computation of Increase in Gross Revenue.....	A
Summary of Filing .....	REL-1
Original Cost Rate Base.....	REL-2
Plant in Service .....	REL-3
Accumulated Depreciation.....	REL-4
Income Statement.....	REL-5
Rate Design.....	REL-6
Typical Bill Analysis .....	REL-7

**EXECUTIVE SUMMARY**

**UTILITIES DIVISION**

**ARIZONA CORPORATION COMMISSION**

**RIO VERDE UTILITIES, INC. -WATER DIVISION**

**DOCKET NOS. WS-02156A-00-0321 AND WS-02156A-00-0323**

**APPLICATIONS  
FOR FINANCING APPROVAL  
AND A  
PERMANENT RATE INCREASE**

**DECEMBER 15, 2000**

**Executive Summary**  
**Rio Verde Utilities, Inc. – Water Division**  
**Docket Nos. WS-02156A-00-0321, et al.**

Rio Verde Utilities, Inc. – Water Division (“Company” or “Rio Verde Water”) is an Arizona “C” corporation that services a developed community located ten miles north of the community of Fountain Hills, adjacent to McDowell Mountain Range Park. Rio Verde Utilities, Inc. is a combined water and wastewater utility that provided service to approximately 1,247 water customers as of December 31, 1999. Approximately 98 percent of these customers were residential and located in the Rio Verde and Tonto Verde subdivisions.

On May 11, 2000, Rio Verde’s Water Division filed an application for approval of a permanent rate increase with the Commission. The application was subsequently docketed on June 9, 2000. Rio Verde Wastewater’s current rates and charges were established by Decision No. 58525, dated February 2, 1994. The application contained a requested increase for both the Water and Wastewater rates.

The Company’s Test Year adjusted income statement contains adjusted total operating revenue of \$949,205 for the Water Division. Therefore, the adjusted current rate of return is 4.57 percent. In this proceeding, the Company has requested a rate of return of 11.45 percent on an adjusted Original Cost Rate Base (“OCRB”) of \$4,248,575. Therefore, the Company’s requested operating income is \$486,388.

Staff’s proposed overall rate of return is 10.65 percent. Staff’s adjusted OCRB is \$4,104,475. Therefore, Staff’s recommended operating income is \$437,126. Staff’s analysis consisted of determining the Company’s cash requirements based on Staff’s adjustments to rate base and operating expenses. This rate increase will also generate a positive cash flow of approximately \$591,284 after expenses for operation and maintenance.

Staff adjusted the Company's Test Year revenue by reclassifying the hook-up fees as a contribution in aid of construction ("CIAC"). Staff is against continuing to use hook-up fees as revenue. Staff also recommends increasing the hook-up fees by \$500, from \$500 to \$1,000 per hook-up. All money collected from hook-up fees should be used as contributions to pay for backbone plant.

Staff proposed an increase in the monthly usage charge for  $\frac{3}{4}$ - and 1-inch metered customers of \$3.00, from \$7.00 to \$10.00. The Company proposed that the gallons included in the minimum be decreased for all classes of customers from 1,000 gallons to zero gallons. In the interest of conservation, Staff agrees with this position. Costs should be related to usage as much as possible. The Company requested a commodity charge increase of \$1.03, from \$1.28 to \$2.31. Staff recommended an increase the commodity charge of \$.67 per 1,000 gallons, from \$1.28 to \$1.95. Under Company proposed rates, the typical residential bill, having a median usage of 8,740 gallons, would increase by \$13.24, from \$16.95 to \$30.19, for an increase of 78.2 percent. At Staff's proposed rates, the typical monthly bill would increase by \$10.10, from \$16.95 to \$27.04 per month, for an increase of 59.6 percent.

The Company does not propose any changes to the other service charges as authorized by Decision No. 58525. Staff proposes increasing the charge for a NSF check be increased by \$15.00, from \$10.00 to \$25.00 to bring the fee in line with industry standards. Staff, also proposes an increase in the hook-up fees from \$500 to \$1,000 with money to be considered as CIAC.

1 **INTRODUCTION**

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

3 A. My name is Ronald E. Ludders. I am a Senior Rate Analyst with the Utilities Division of  
4 the Arizona Corporation Commission ("Commission"). My business address is 1200  
5 West Washington Street, Phoenix, Arizona 85007.

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

8 A. I have been employed by the Commission since December 1989.

9  
10 Q. What are your responsibilities as a Senior Rate Analyst?

11 A. Among other responsibilities, I review and analyze the accounting books and records of  
12 regulated utilities for accuracy, completeness, and reasonableness; interpret rules and  
13 regulations, prepare work-papers, schedules, staff reports and testimony for ratemaking  
14 purposes regarding utility applications for rate increases, financing and other matters that  
15 come before the Commission.

16  
17 Q. Have you previously testified before this Commission?

18 A. Yes.

19  
20 Q. What is your educational background?

21 A. I obtained a Bachelor of Science Degree in Business Administration, with majors in  
22 Marketing and Accounting from Eastern Illinois University. I possess a minor in  
23 Business Management. I have attended National Association of Regulatory Utility  
24 Commissioners ("NARUC") classes, rate seminars and numerous in-house training  
25 classes and courses regarding statistics, utility auditing, management accounting, rate  
26 design, taxation, cash working capital studies, and utility service charges.

27 ...

28 ...

1 I have been a member of the National Association of Accountants (now the Institute of  
2 Management Accountants) and the Institute of Internal Auditors.

3  
4 Q. Briefly describe your pertinent work experience.

5 A. Prior to my employment with the Commission, I held several positions with a large  
6 public utility (Arizona Public Service), serving as a Project Accountant, Cost Control  
7 Analyst and Internal Auditor. I have also served as a Senior Auditor for the State of  
8 Arizona – Auditor General and the Governor’s Management and Audit Team. Further, I  
9 have served as a Revenue Auditor with the Arizona Department of Transportation.

10  
11 As a Commission employee I have been assigned water, wastewater rate cases, financing,  
12 acquisitions, sales of assets, fuel adjusters, Certificates of Convenience and Necessity,  
13 interim rate cases, depreciation and tariff matters.

14  
15 Q. As part of your assigned duties at the Commission, did you perform an analysis of the  
16 application that is the subject of this proceeding?

17 A. Yes, I did. My analysis focused most directly on the Water Division section of the  
18 application. Staff witness Rodney Moore focused his analysis on the Wastewater  
19 Division section of the application and William Rigsby was responsible for the Cost of  
20 Capital Study.

21  
22 **PURPOSE OF TESTIMONY**

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

24 A. The purpose of my testimony is to present Staff’s recommendations regarding the Rio  
25 Verde Utilities, Inc. (“Rio Verde” or “Company”) rate base, Test Year operating results,  
26 revenue requirement and rate design for its Water Division (“Division”).

27 ...

28 ...

1 Q. What is the basis of Staff's recommendations?

2 A. Staff performed a regulatory audit of the Company's records to determine whether  
3 sufficient, relevant and reliable evidence exists to support Rio Verde Water's rate  
4 application. The regulatory audit consisted of examining and testing accounting ledgers  
5 and reports, checking the accumulation of amounts in the records, tracing recorded  
6 amounts to source documents, verifying the correct application of data with applicable  
7 standards of third parties, and verifying that the accounting principles applied are in  
8 accordance with the Commission authorized Uniform System of Accounts.

9  
10 Q. What Test Year was used by the Company in this filing?

11 A. Rio Verde used historical Test Year for the twelve months ending December 31, 1999.  
12 The Company included pro forma adjustments in its application. These adjustments  
13 consisted of items purported to be "known and measurable".

14  
15 Q. What is meant by "known and measurable"?

16 A. In the context of rate regulation, "known and measurable" means that the effects on the  
17 Company can be determined with reasonable certainty. However, the meaning of the  
18 term is subject to professional interpretation and judgement.

19  
20 Q. Did Staff accept the Test Year as proposed by the Company?

21 A. Yes.

22  
23 **BACKGROUND**

24 Q. Please describe the general operating characteristics of the Rio Verde water system and  
25 background.

26 A. Rio Verde is a "C" Corporation which serves a developed community located ten miles  
27 north of the community of Fountain Hills adjacent to McDowell Mountain Range Park.  
28 Rio Verde is a combined water and wastewater utility which provided service to

1 approximately 1,247 water customers as of December 1999. Approximately 96 percent  
2 of these customers were residential. Other customers include the Rio Verde Community  
3 Association, Rio Verde Country Club, Rio Verde Golf Course and Rio Verde  
4 Recreational Vehicle Park, Tonto Verde country Club, and Tonto Verde Golf Course,  
5 among others.

6  
7 The growth rate has been steady in recent years. Between 1996 and 1999, the Company  
8 added 252 customers, approximately 84 customers per year. Further information  
9 concerning the operational characteristics of the Company can be found in the  
10 Engineering Staff Report contained in Staff Witness Mr. John Chelus' Testimony.

11  
12 Q. What are the relationships between Rio Verde Services, Inc. ("RVSI") and Rio Verde  
13 Utilities, Inc.?

14 A. RVSI is the entity established to perform maintenance, repair, landscaping, development  
15 and other administrative functions for the grounds and commonly used areas of Rio  
16 Verde and Tonto Verde. These include the country club, golf courses, tennis courts and  
17 clubhouse, among others. Mr. David Ritchie is the President and a member of the Board  
18 of Directors of Rio Verde Services. Mr. Ritchie is also the President and a member of the  
19 Board of Directors of Rio Verde Utilities. Second Arizona Rio-Verde Company (a  
20 limited partnership and the sole shareholder of Rio Verde Utilities) is a noteholder on a  
21 loan to the utility company. Second Arizona Rio Verde Company is the majority  
22 shareholder of Rio Verde Development and Rio Verde Services, Inc. Rio Verde  
23 Development, RVSI and other affiliated entities are water customers of the utility.  
24 Finally, certain RVSI employees charge Rio Verde Utilities for time spent on managerial,  
25 clerical and maintenance functions.

26 ...

27 ...

28 ...

1 **SUMMARY OF STAFF RECOMMENDATIONS**

2 Q. Please summarize the Company's application.

3 A. On May 11, 2000, Rio Verde filed an application for a permanent rate increase for its  
4 water and wastewater operations. Additionally, on the same date, the Company filed for  
5 authority to issue promissory note(s) and other evidences of indebtedness payable at  
6 periods of more than twelve months after the date of its issuance. Staff found the rate  
7 application sufficient. Rio Verde's current rates and charges were established by  
8 Decision No. 58525, dated February 2, 1994.

9  
10 During the Test Year, the Company's Water Division experienced an adjusted operating  
11 income of \$202,263 on an adjusted Original Cost Rate Base ("OCRB") of \$4,248,575,  
12 for a rate of return of 4.76 percent. This is nearly half of the Company's authorized rate  
13 of return of 9.09 percent.

14  
15 In this proceeding, the Company has requested, through its Consultant, Mr. Thomas  
16 Bourassa, a rate of return of 11.45 percent on an adjusted OCRB of \$4,248,575.  
17 Therefore, the Company's requested operating income is \$486,358. It should be noted  
18 that the Company listed Required Operating Income on Schedule A as \$486,388;  
19 however, on the Income Statement, the Operating Income is \$486,358, a difference of  
20 \$30. The Company computed a gross revenue conversion factor of 1.6469 at the  
21 proposed revenues. This factor applied to the revenue deficiency results in an increase in  
22 gross revenue requirement of \$467,929. The Company's filing (Schedule A-1) requests  
23 \$1,421,128 in gross revenue requirement.

24  
25 The gross revenue conversion factor is derived from calculating the desired taxable  
26 income (based on the "target" operating income), then determining the effective income  
27 tax rates at that level and dividing one by the marginal operating in percentage. It is used  
28 to reflect how much gross revenues must increase to produce net income after taxes (i.e.,

1 factor 1.6469 means gross revenue must increase \$164.69 to produce \$100.00 of net  
2 income after taxes). The conversion factor varies with changing income levels and tax  
3 rates.

4  
5 A. Please provide a short summary of the results of Staff's analysis of this case.

6 Q. Staff's analysis and review of the Rio Verde Water Division's operation as shown in  
7 Schedule A has resulted in various adjustments to the Company proposed figures. Staff  
8 is recommending a total rate base of \$4,104,475 compared to the Company's proposed  
9 rate base of \$4,248,575.

10  
11 A total rate of return on a fair value rate base of 10.65 percent versus the Company's  
12 proposed 11.45 percent.

13  
14 A total revenue requirement increase of \$410,853 (43.28 percent) compared to the  
15 Company proposed increase of \$467,929 (49.09 percent).

16  
17 Staff's adjusted Test Year operating revenue is \$949,205 versus the Company's  
18 \$953,199. The Company's required increase in revenues recommended by Staff is  
19 \$410,853 for a total revenue requirement of \$1,360,058 versus the Company's  
20 \$1,421,128. The Company did not propose a Reconstruction Cost New Rate Base  
21 ("RCNRB") in its application; thus, waives its right to have RCNRB incorporated into  
22 the formulation of Fair Value Rate Base. Therefore, Fair Value Rate Base is equivalent  
23 to Original Cost Rate Base.

24 ...  
25 ...  
26 ...  
27 ...  
28 ...

1 **RATE OF RETURN**

2 Q. Please explain how Staff determined its proposed rate of return.

3 A. Staff's recommended revenue increase is premised on a required rate of return of 10.65  
4 percent. A summary of this recommended increase in gross revenue is explained in Staff  
5 witness Mr. William A. Rigby's Testimony.

6  
7 **ORIGINAL COST RATE BASE**

8 Q. Has Staff prepared a schedule detailing the components and amounts representing the  
9 Company's proposed and Staff's adjusted rate base?

10 A. Yes, please refer to Schedule REL-2.

11  
12 Q. Is Staff recommending any changes to the Company's proposed OCRB?

13 A. Yes. The Company proposed an OCRB of \$4,248,575. Staff is recommending an OCRB  
14 of \$4,104,475 or a difference of \$144,100.

15  
16 Q. Please briefly explain Staff's adjustments to Plant in Service.

17 A. Staff's adjustment to Plant in Service resulted in a reduction of \$127,481 as shown on  
18 Schedule REL-3. Staff's adjustments to Plant in Service consisted of the reclassification  
19 of certain expenses to Plant and the retirement of several assets not recorded on the books  
20 and records of the Company.

21  
22 Staff's adjustment A reduced Account 304 – Structures & Improvements by \$4,000, from  
23 \$37,133 to \$33,133. This adjustment reflects the retirement of a booster pump vault.

24  
25 Staff's adjustment B reduced Account 307 – Wells & Springs by \$63,346, from  
26 \$1,610,304 to 1,546,958. This adjustment reflects the retirement of Well Number 3 as a  
27 production well.

28 ...

1 Adjustment C records the retirement of \$16,099 in various control systems, motors,  
2 pumps and flow meters from Account 311 – Electric Pumping Equipment. These  
3 retirements reduced the balance in the Electric Pumping Equipment account from  
4 \$973,284 to \$957,185.

5  
6 Staff's adjustment D reduced Account 331 – Transmission & Distribution Mains by  
7 \$1,500, from \$2,701,140 to \$2,699,640. This adjustment reflects the retirement of old  
8 valves.

9  
10 Staff's adjustment E reduced Account 333 – Services, by \$20,230. This adjustment  
11 consists of a reclassification of \$2,770 from the Maintenance operating account expenses  
12 that should have been capitalized. The second part of the adjustment consisted of the  
13 retirement of \$23,000 of polyethylene service lines. The result of these adjustments  
14 reduced the Service balance of this account form \$347,232 to \$327,002.

15  
16 Staff's adjustment F reduced Account 341 – Transportation Expenses by \$18,406, from  
17 \$36,684 to \$18,278. This adjustment consists of three parts. First, Staff removed \$9,906  
18 for the retirement of a 1978 and 1983 truck. Second, Staff removed \$8,675 to reflect the  
19 gift of a truck to a retired employee. Finally, Staff reversed an entry of \$175 that was  
20 made to record the sale of the 1978 and 1989 trucks.

21  
22 Adjustment G reduces Account 344 – Laboratory Equipment by \$1,200, from \$7,336 to  
23 \$6,136 to record the retirement of a reverse osmosis unit.

24  
25 Finally, Staff's adjustment H reduced Account 346 – Communication Equipment by  
26 \$2,700, from \$63,499 to \$60,799. This adjustment reflects the retirement of radio  
27 equipment.

1 Q. Please explain Staff's adjustments to Accumulated Depreciation.

2 A. Staff recalculated Accumulated Depreciation as shown in Schedule REL-4 based on the  
3 revised Plant amounts. Staff reduced Accumulated Depreciation by \$131,975, from  
4 \$1,158,670 to \$1,026,695 (Adjustments B, C and D). The largest adjustment to  
5 Accumulated Depreciation was the result of Plant retirements of \$121,764. According to  
6 NARUC accounting rules, when an asset is retired, Accumulated Depreciation is reduced  
7 by its original cost. Additionally, Staff reduced the over-collection of excess depreciation  
8 expenses of (\$10,296) which should have ceased on the date the asset should have been  
9 retired. Finally, Staff included the depreciation for Plant reclassified from operating  
10 expenses.

11

12 Q. Did Staff make any other adjustments to Rate Base?

13 A. Yes it has as reflected in Schedule REL-2. Staff's adjustment C of \$23 is due to a  
14 correction to the Company's reported amortization figure.

15

16 Additionally, as shown in adjustment D, Staff reduced Deferred Income Taxes by \$7,038,  
17 from \$61,793 to \$54,755 as a result of the decrease of Plant in Service and associated  
18 Accumulated Depreciation. This adjustment was made by using the same proportion to  
19 the relationship between the Company's proposed Accumulated Depreciation and  
20 Deferred Income Taxes shown on Schedule REL-2.

21

22 Q. Has Staff made any adjustment to "Additions" to Rate Base?

23 A. Yes, it has. The Company recorded \$12,904 in Unamortized Finance Charges regarding  
24 the Company's proposed CoBank loan for which Staff is not currently recommending  
25 approval (Adjustment E). (Please refer to Mr. William A. Rigsby's testimony.)

26

27 The Allowance for Working Capital was reduced by \$13,711, from \$98,339 to \$84,628  
28 as shown on Schedule REL-2 (Adjustment F). Staff's adjustment was based on

1 adjustments to operating expense, and the removal from the calculation of Payroll Taxes  
2 of \$11,504 and Taxes and Licenses of \$41,820, which were erroneously utilized in this  
3 calculation.

4  
5 The Company pro forma claimed a Debt Reserve Fund (proposed Cobank loan) of  
6 \$129,039 (Adjustment G). Staff removed these charges from Rate Base because they are  
7 associated with the Company's proposed long-term debt for which Staff is not currently  
8 recommending approval.

9  
10 **OPERATING REVENUE**

11 Q. Did Staff prepare a schedule representative of the Company's and Staff's Test Year  
12 revenues?

13 A. Yes, please refer to Schedule REL-5.

14  
15 Q. Please explain Staff's adjustment to Revenue.

16 A. Staff reduced Metered Water Sales by \$3,994, from \$912,925 to \$908,931. (See  
17 Schedule REL-5, Adjustment A.) The adjustment was the result of Staff's reconciliation  
18 of the Company's revenues to Staff's Bill Count.

19  
20 The Company removed Central Arizona Project ("CAP") Project surcharge revenue  
21 (Decision No. 62037, dated November 2, 1999) from its application. The CAP water  
22 surcharge of \$0.181258 per 1,000 gallons was designed and approved to recover  
23 accumulated CAP costs of \$31,036. Once this amount is recovered, the surcharge should  
24 cease.

25  
26 The Company is requesting an adjustor mechanism be put in place similar to the  
27 Purchased Gas Adjustor ("PGA") bank balance methodology. In Staff's opinion, a  
28 surcharge for this expense is not necessary. An adjustor mechanism such as the one used

1 in the gas industry is in place due to the volatility of the cost of gas and the fact that the  
2 cost of gas represents by far the largest expense for the local distribution companies  
3 ("LDC"). Staff believes that CAP water costs are not volatile in nature. In addition, the  
4 Company's CAP cost of \$52,528 represents approximately 7 percent of the Company's  
5 operating expenses. Furthermore, Staff included 100 percent of the CAP water costs in  
6 its recommended rates.

7  
8 **OPERATING EXPENSES**

9 Q. Did Staff prepare a schedule representative of the Company's and Staff's adjusted  
10 revenues and expenses?

11 A. Yes. Please refer to Schedule REL-5.

12  
13 Q. What is Staff's adjustment to Salaries and Wages expenses?

14 A. Staff decreased Salaries and Wages by \$8,543, from \$104,146 to \$95,603 (Adjustment  
15 C). Through a Data Request, the Company provided additional information which  
16 resulted in this reduction.

17  
18 Q. Please explain Staff's adjustment to the Maintenance account.

19 A. Staff reduced the Maintenance expense by \$6,670, from \$86,213 to \$79,543 (Adjustment  
20 D). This adjustment consists of several entries. Staff removed a \$285 non-recurring  
21 expense for the repair of interlocking paving stones. Staff reclassified a \$298 line  
22 extension, a \$1,342 1-inch service line and a \$1,130 poly-tube replacement from an  
23 expense to an asset account (Services). Staff further transferred a \$401 line extension  
24 and a \$950 lift station pump from the Water Division to the Wastewater Division posted  
25 in error. Staff amortized the cost of a 20-foot extension ladder and a bench vice costing  
26 \$192 over a three year period (\$64 per year) to record the non-recurring nature of these  
27 purchases. Finally, Staff removed a \$2,200 fuel tank rental of non-recurring, non-typical  
28 expense incurred as a result of concerns for a potential Y2K difficulty.

1 Q. What is Staff's adjustment to Payroll Taxes?

2 A. Due to reductions to Salaries and Wages, Staff reduced accompanying Payroll Taxes by  
3 \$2,276, from \$11,504 to \$9,228 (Adjustment E).

4  
5 Q. What is Staff's adjustment to Taxes and Licenses expense?

6 A. Staff decreased property taxes by \$13,372, from \$41,820 to \$28,448 (Adjustment F).  
7 Staff used the Company's actual assessment from its 2000 bills, which reflect the  
8 Company's actual property tax amount. Staff believes the proper accounting treatment  
9 for property taxes is to utilize the most current known and measurable billing. In Staff's  
10 opinion, there is no known formula that is more accurate for determining property taxes  
11 than the most current bill itself.

12  
13 Q. What is Staff's adjustment to Outside Services?

14 A. Staff reduced this expense by \$172, from \$27,839 to 27,667 as a result of the removal of  
15 a Y2K testing expense which is neither typical nor recurring (Adjustment G).

16  
17 Q. What is Staff's adjustment to Miscellaneous expense?

18 A. Staff reduced this expense by \$88, from \$139 to \$51 as a result of the elimination of a  
19 Costco membership for one of the Company's managers which is unrelated to the  
20 operation of the Water Division (Adjustment H).

21  
22 Q. What is Staff's adjustment to Rate Case Expenses?

23 A. Staff reduced Rate Case expense by \$2,000, from \$12,000 to \$10,000. This adjustment  
24 represents Staff's allowance for \$30,000 in rate case expense amortized over three years.

25  
26 Q. What is Staff's adjustment to Depreciation Expense?

27 A. Staff reduced depreciation expenses by \$8,441, from \$162,599 to \$154,158. This  
28 adjustment was based on Staff's adjustments to Plant in Service (Adjustment J).

1 Q. Please explain Staff's adjustment to Income Taxes.

2 A. Staff utilized the synchronized interest method. In this method, interest expense is  
3 included in the tax calculation as the product of the weighted average cost of debt during  
4 the Test Year and proposed rate bases. Staff used a weighted average cost of debt for the  
5 Water Division of 1.74 percent. The weighted average cost of debt is computed by  
6 weighing the various loans of the Company to total debt. These weights are then  
7 multiplied by the corresponding costs. (See testimony of Staff witness Mr. William A.  
8 Rigsby.) Taxes are computed at the effective rates and conversion factors are calculated  
9 based on Staff's adjusted Test Year earnings before interest and taxes ("EBIT"). Staff's  
10 recommended Test Year Income Taxes amount is \$75,195, an increase of \$52,178 from  
11 the Company adjusted Test Year amount of \$23,017. At Staff's proposed revenue levels,  
12 Income Tax expense should be \$236,578, as shown on Schedule REL-5.

13  
14 Q. Please explain Staff's adjustment to Interest Income.

15 A. Staff reduced Interest Income by \$5,656, from \$11,452 to \$5,796. Staff removed the  
16 Company's pro forma adjustment regarding the Company's proposed long-term debt for  
17 which Staff is not recommending approval at this time.

18  
19 Q. Please explain Staff's adjustment to Interest Expense.

20 A. Staff reduced Interest Expense by \$126,353, from \$178,132 to \$51,779 (Adjustment M).  
21 This adjustment removes pro forma below-the-line interest expense on Company-  
22 proposed long-term debt. This portion of the adjustment is the result of Staff's  
23 recommendation to delay a recommendation on a CoBank loan, that is being requested in  
24 Rio Verde's Financing Application, until the actual terms of the loan can be reviewed. In  
25 addition, Staff's recommended interest expense level is consistent with the Company's  
26 response to a Residential Utility Consumers Office ("RUCO") data request.

27 ...

28 ...

1 **SUMMARY OF REVENUE REQUIREMENT**

2 Q. Please summarize Staff's proposed revenue requirement in this case.

3 A. The effect of Staff's adjusted Rate Base of \$4,104,475 and Staff's adjusted operating  
4 income of \$187,653 results in the rate of return of 4.57 percent. The required rate of  
5 return is 10.65 percent (See William A. Rigsby's Testimony). Therefore, the required  
6 operating income on Staff's adjusted Rate Base is \$437,126; resulting in an operating  
7 income deficiency of \$249,473. At Staff's proposed revenues, a gross revenue  
8 conversion factor of approximately 1.6469 is applied to the operating income deficiency.  
9 Staff's total revenue requirement is \$1,360,058 (Test Year revenue of \$949,205 plus the  
10 increase in gross revenues requirement of \$410,853). Staff's recommended revenue level  
11 does not include the Company's proposed hook-up fee. Staff is recommending an  
12 increase in the hook-up fee of \$500, from the Company's current fee of \$500 to \$1,000.  
13 However, Staff recommends that the revenues derived from the hook-up fee be recorded  
14 as CIAC and not as revenues. Please refer to the testimony of Mr. John Chelus for  
15 further discussion.

16  
17 **RATE DESIGN**

18 Q. What methodology did Staff utilize to design Rio Verde's rates?

19 A. Staff began with the Test Year bill count provided by the Company. Staff adjusted this  
20 bill count by the additional bills that were reflected in the Company's pro forma revenue  
21 annualization. Staff then designed rates that produced \$1,354,784 of gross operating  
22 water revenues. When the gross operating revenues are added to "Other Sales and Fees"  
23 of \$5,274, the result is \$1,360,058.

24  
25 Q. Did Staff consider a tiered rate structure?

26 A. Yes it did. Staff chose to recommend a standard rate structure for the following reasons.  
27 First, Staff recommends that the Commission approve zero gallons in the basic rate.  
28 Second, due to the seasonality of numerous residents, summer usage peaks in June and

1 declines in subsequent months suggesting that tiered rates would not materially  
2 encourage conservation. Third, a multi-tiered rate structure would make the revenue  
3 more volatile because of its dependence on volumetric sales to recover targeted revenue.  
4 Staff believes a single block rate structure at this time would provide the desired effect  
5 that is a steady revenue stream in order for the Company to meet its financial obligations.  
6

7 Q. What rate design did Staff propose for the 3/4-inch and 1-inch meter Residential class  
8 customers?

9 A. Staff's rate design is shown on Schedule REL-6. Staff proposed an increase in the  
10 monthly usage charge of \$3.00, from \$7.00 to \$10.00. The Company proposed that the  
11 gallons included in the minimum be decreased for all classes of customers from 1,000  
12 gallons to zero gallons. In the interest of conservation, Staff agrees with this position.  
13 Costs should be related to usage as much as possible. The Company requested a  
14 commodity charge increase of \$1.03, from \$1.28 to \$2.31. Staff recommended an  
15 increase in the commodity charge of \$.67 per 1,000 gallons, from \$1.28 to \$1.95. Under  
16 Company proposed rates, the typical residential bill, having a median usage of 8,740  
17 gallons, would increase by \$13.24, from \$16.95 to \$30.19, for an increase of 78.2  
18 percent. At Staff's proposed rates, the typical monthly bill would increase by \$10.10,  
19 from \$16.95 to \$27.04 per month, for an increase of 59.6 percent. Staff recommends that  
20 the Company submit a separate bill count for the 1-inch meter in its next rate filing.  
21

22 Q. What rate design is Staff proposing for the 1-inch Commercial customers?

23 A. Customers in this group include business establishments and public restrooms. The  
24 average Test Year usage in this class was 14,723 gallons. As shown on Schedule REL-6,  
25 Staff proposed an increase to the monthly basic charge of \$3.00, from \$7.00 to \$10.00.  
26 Staff proposed the same rates as proposed for Residential class customers.

27 ...

28 ...

1 Q. What rate design is Staff recommending for 2-inch Commercial customers?

2 A. The Commercial customers on 2-inch meters include restaurants and business  
3 establishments. Average usage during the Test Year was 234,221 gallons per month.  
4 Staff increased the monthly basic charge by \$13.33, from \$40.00 to \$53.33.

5

6 Q. What rate design is Staff recommending for 4-inch Commercial customers?

7 A. Staff is recommending an increase in the basic charge of \$116.00, from \$50.00 to  
8 \$166.00.

9

10 Q. What rate design is Staff recommending for 6-inch Commercial customers?

11 A. Staff is recommending an increase in the basic charge of \$233, from \$100.00 to \$333.00.

12

13 Q. Please explain why the one 6-inch Irrigation customer uses potable water as opposed to  
14 irrigation water. What is Staff's rate design for these customers?

15 A. This is the meter size utilized by the Rio Verde and Tonto Verde Golf Courses. The golf  
16 courses use potable water only in order to meet their hot summer months requirements.  
17 Staff's proposed rate design includes an irrigation commodity charge increase of \$.32,  
18 from \$.88 to \$1.20 and a surcharge of \$.75 when potable water is used. Staff is  
19 recommending an increase in the basic charge of \$233, from \$100.00 to \$333.00.

20

21 Q. What rate design did Staff proposed for 8-inch and 12-inch Irrigation customers?

22 A. Customers included in these large meter sizes include the golf courses.

23

24 Staff's rate design increases the commodity rate charge for the 8-inch meter and 12-inch  
25 meters from \$.88 to \$1.20 for non-potable water. A \$.75 irrigation surcharge is  
26 applicable when potable water is used. Staff is recommending an increase in the basic  
27 charge for an 8-inch meter of \$466.67, from \$200.00 to \$666.67. Additionally, Staff is

28 ...

1 recommending an increase in the basic charge for a 12-inch meter of \$766.67, from  
2 \$400.00 to \$1,166.67.

3  
4 Q. Did Staff propose any changes to Service Line and Meter Installation Charges?

5 A. No, it did not.

6  
7 Q. Did Staff recommend any changes to Other Service Charges?

8 A. Yes, it did. Staff does not believe the Company's current \$5.00 Late Payment Charge,  
9 for both water and wastewater service, is the most equitable manner of dealing with late  
10 payments, because it ignores the magnitude of the unpaid balance. Staff recommends  
11 adoption of 1.50 percent of the total unpaid balance as the Late Payment Charge. This is  
12 consistent with other Commission decisions concerning late payment fees. Staff also  
13 recommends that the Company clearly specify in its tariffs whether charges pertain to  
14 either the Water Division or the Wastewater Division or both.

15  
16 Q. Did the Customer Services section of the Commission make any recommendations  
17 concerning this case?

18 A. Yes, it did.

19  
20 Q. Please explain the recommendations of the Consumer Services section.

21 A. Rio Verde requested to continue its Non-Sufficient Funds ("NSF") charge of \$10.00.  
22 Consumer Services believes the fee should be increased to \$25.00 based on today's  
23 banking industry standards.

24  
25 Q. Have any complaints been made to the Commission's Consumer Services section  
26 regarding Rio Verde?

27 A. A search of Consumer Services files revealed there were no informal complaints filed  
28 against Rio Verde for the past three years that include 1997, 1998, and 1999 and up to

1           October 3, 2000. Additionally, Docket Control records no formal complaints filed for the  
2           referenced years. The Commission has not received any letters from customers regarding  
3           the rate increase.

4  
5           **STAFF RECOMMENDATIONS**

6           Q.     Please summarize Staff's recommendations in this proceedings.

7           A.     Staff recommends that the Commission approve Staff's rates and charges as depicted on  
8           Schedule REL-6.

9  
10          Staff further recommends that the Company be authorized an operating income of  
11          \$437,126 based on Staff's adjustments to Rate Base and operating expenses.

12  
13          Staff further recommends a fair value rate base of \$4,104,475.

14  
15          Staff further recommends that a provision be included in the Company's tariff to allow  
16          for the flow-through of all appropriate state and local taxes as provided for in A.A.C.  
17          R14-2-409(D) (5).

18  
19          Staff further recommends that the residential 1-inch meter usage be segregated from the  
20          5/8- x 3/4-inch meter usage before the next rate filing.

21  
22          Staff further recommends that the Company be instructed to follow the NARUC Uniform  
23          System of Accounts in posting its retirements during the accounting period in which the  
24          Plant is taken out of service.

25  
26          Q.     Does this conclude your direct testimony?

27          A.     Yes, it does.

COMPUTATION OF INCREASE IN GROSS REVENUE

	<u>Per Company</u>	<u>Per Staff</u>
Adjusted Rate Base	\$ 4,248,575	\$ 4,104,475
Adjusted Operating Income	\$ 202,261	\$ 187,653
Current Rate of Return	4.76067	4.57191
Required Operating Income	\$ 486,388	\$ 437,126
Required Rate of Return	11.4483	10.6500
Operating Income Deficiency	\$ 284,127	\$ 249,473
Gross Revenue Conversion Factor*	1.6469	1.6469
Increase in Gross Revenues Requirement	\$ 467,929	\$ 410,853
Test Year Revenue	953,199	949,205
Total Required Gross Revenue	\$ 1,421,128	\$ 1,360,058
Required Increase in Gross Revenues (%)	49.09	43.28

\* Gross Revenue Conversion Factor taking synchronized interest into consideration.

**SUMMARY OF FILING**

LINE NO.	DESCRIPTION	PRESENT RATES		PROPOSED RATES	
		COMPANY AS FILED	STAFF ADJUSTED	COMPANY AS FILED	STAFF ADJUSTED
<b>REVENUES:</b>					
1	Metered Sales	\$ 912,925	\$ 908,931	\$ 1,380,802	\$ 1,354,784
2	Hook-Up Fees	35,000	\$ 35,000	35,000	-
3	Other Operating Revenue	5,274	5,274	5,274	5,274
4	<b>TOTAL OPERATING REVENUE</b>	<b>\$ 953,199</b>	<b>\$ 949,205</b>	<b>\$ 1,421,076</b>	<b>\$ 1,360,058</b>
<b>OPERATING EXPENSES:</b>					
5	Operation and Maintenance	511,996	494,523	511,996	494,520
6	Depreciation	162,599	154,158	162,599	154,158
7	Taxes Other than Income	53,324	37,676	53,324	37,676
8	Income Tax	23,017	75,195	206,799	236,578
9	<b>TOTAL OPERATING EXPENSES</b>	<b>\$ 750,936</b>	<b>\$ 761,552</b>	<b>\$ 934,718</b>	<b>\$ 922,932</b>
10	<b>OPERATING INCOME/(LOSS)</b>	<b>\$ 202,263</b>	<b>\$ 187,653</b>	<b>\$ 486,358</b>	<b>\$ 437,126</b>
11	<b>OCRB</b>	<b>\$ 4,248,575</b>	<b>\$ 4,104,475</b>	<b>\$ 4,248,575</b>	<b>\$ 4,104,475</b>
12	<b>RATE OF RETURN</b>	4.76%	4.57%	11.45%	10.65%
13	<b>REQUIRED OPERATING INCOME</b>	N/A	N/A	\$ 486,358	\$ 437,126

**ORIGINAL COST RATE BASE**

LINE NO.	DESCRIPTION	COMPANY AS FILED	STAFF ADJUSTMENTS	REF	STAFF ADJUSTED
1	Gross Utility Plant in Service	\$ 6,619,373	\$ (127,481)	A	\$ 6,491,892
	Less:				
2	Accumulated Depreciation	1,158,669	\$ (131,974)	B	1,026,695
3	<b>Net Utility Plant in Service</b>	<b>\$ 5,460,704</b>	<b>\$ 4,493</b>		<b>\$ 5,465,197</b>
	Less:				
4	Advances in Aid of Construction	\$ -	-		\$ -
5	Meter Deposits	120,684	-		120,684
6	<b>Total Advances</b>	<b>\$ 120,684</b>	<b>\$ -</b>		<b>\$ 120,684</b>
7	Contributions in Aid of Construction	\$ 1,417,924	\$ -		1,417,924
	Less:				
8	Amortization of CIAC	147,989	23	C	148,012
9	<b>Net CIAC</b>	<b>\$ 1,269,935</b>	<b>\$ (23)</b>		<b>\$ 1,269,912</b>
9	Deferred Income Taxes & Credits	61,793	\$ (7,038)	D	54,755
	<b>Total Deferred Income Taxes &amp; Credits</b>	<b>\$ 61,793</b>	<b>\$ (7,038)</b>		<b>54,755</b>
10	<b>Total Deductions</b>	<b>\$ 1,452,412</b>	<b>\$ (7,061)</b>		<b>\$ 1,445,351</b>
	Plus/(Less):				
11	Unamortized Finance Charges	12,904	(12,904)	E	-
12	Allowance for Working Capital	98,339	(13,711)	F	84,628
13	Debt Reserve Fund (proposed Cobank loan)	129,039	(129,039)	G	-
14	Adjustment Due to Rounding	1			1
	<b>Total Additions</b>	<b>\$ 240,283</b>	<b>\$ (155,654)</b>		<b>\$ 84,629</b>
	<b>ORIGINAL COST RATE BASE</b>	<b>\$ 4,248,575</b>	<b>\$ (144,100)</b>		<b>\$ 4,104,475</b>

Explanation of Adjustments:

A See Plant in Service Schedule REL-3

B See Accumulated Depreciation Schedule REL-4

C This adjustment increases the Amortization of CIAC by \$23 that represents a correction to the Company's calculation.

**ORIGINAL COST RATE BASE - Continued**

- D As a result of Staff's adjustment to Depreciation, Deferred Income Taxes and Credits were decreased by \$7,038, from \$61,793 to \$54,755.
- E Staff removed the Unamortized Finance Charges of \$12,904 from Rate Base because it is associated with the Company's proposed long-term debt.
- F Staff reduced the Allowance for Working Capital by \$11,711, from \$98,339 to \$86,628.
- G Staff removed the Debt Reserve Fund (proposed Cobank loan) of \$129,039 from Rate Base because it is associated with the Company's proposed long-term debt.

**PLANT IN SERVICE**

LINE NO.	ACCT NO.	DESCRIPTION	COMPANY AS FILED	STAFF ADJUSTMENTS	REF	STAFF ADJUSTED
1	301	Organization Cost	\$ 1,380	\$ -		\$ 1,380
2	302	Franchise Cost	-	-		-
3	303	Land & Land Rights	41,512			41,512
4	304	Structures & Improvements	37,133	(4,000)	A	33,133
5	307	Wells & Springs	1,610,304	(63,346)	B	1,546,958
6	310	Power Generation Equipment	35,397	-		35,397
7	311	Electric Pumping Equipment	973,284	(16,099)	C	957,185
8	320	Water Treatment Equipment	12,184	-		12,184
9	330	Distribution Reservoirs	360,282	-		360,282
10	331	Transmission & Distribution-Mains	2,701,140	(1,500)	D	2,699,640
11	333	Services	347,232	(20,230)	E	327,002
12	334	Meters	81,524	-		81,524
13	335	Hydrants	183,259	-		183,259
14	339	Other Plant & Misc. Equipment	105,744	-		105,744
15	340	Office Furniture & Equipment	-	-		-
16	341	Transportation Equipment	36,684	(18,406)	F	18,278
17	343	Tools, Shop & Garage Equipment	10,269	-		10,269
18	344	Laboratory Equipment	7,336	(1,200)	G	6,136
19	346	Communications Equipment	63,499	(2,700)	H	60,799
20	347	Miscellaneous Equipment	1,083	-		1,083
21	348	Other Tangible Plant	10,128	-		10,128
		Plant Held for Future Use	-	-		-
		Adjustment Due to Rounding	(1)	-		(1)
		<b>TOTALS</b>	<b>\$ 6,619,373</b>	<b>(127,481)</b>		<b>\$ 6,491,892</b>

Explanation of Staff Adjustments:

- A To reduce Account 304-Structures & Improvements by \$4,000 to reflect items the retirement of a booster pump vault.
- B To reduce Account 307-Wells & Springs by \$63,348 to reflect the retirement of Well 3 as a production well.
- C To reduce Account 311-Electric Pumping Equipment by \$16,099 to reflect the retirement of various control systems, motors, pumps and flow meters.
- D To reduce Account 331-Transmission & Distribution Mains by \$1,500 to reflect the retirement of old valves.
- E To adjust Account 333-Services by \$20,230 consisting of two elements:
  - 1- To add \$2,770 to Services that were charged to Maintenance expense.
  - 2- To reduce Services by \$23,000 to reflect the retirement of polyethylene service lines.
- F To reduce Account 342-Transportation Expenses by \$18,406 consisting of the following entries:
  - 1- To remove \$9,906 to reflect the sale of a 1978 and a 1983 truck
  - 2- To remove \$8,675 to reflect the gift of a truck to a retired employee.
  - 3- To adjust for the proper processing of the \$175 sale of the 1978 and 1983 trucks.
- G To reduce Account 344-Laboratory Equipment by \$1,200 to reflect the retirement of a Reverse Osmosis Unit.
- H To reduce Account 346-Communications Equipment by \$2,700 to reflect the retirement of radio equipment.

**ACCUMULATED DEPRECIATION**

LINE NO.	DESCRIPTION	COMPANY AS FILED	STAFF ADJUSTMENTS	REF	STAFF ADJUSTED
1	Original Cost	\$ 1,158,670	\$ (131,975)	A	\$ 1,026,695
<b>Explanation of Adjustment:</b>					
	Accumulated Depreciation Balance-Test Year Ended 12/31/92:				\$ 394,583
	Add:				
	Depreciation Expense - 12/31/1993	\$ 50,517	\$ (20)	B	\$ 50,497
	Depreciation Expense - 12/31/1994	56,029	(148)	B	55,881
	Depreciation Expense - 12/31/1995	82,716	(258)	B	82,458
	Depreciation Expense - 12/31/1996	108,596	(275)	B	108,321
	Depreciation Expense - 12/31/1997	121,388	(2,650)	B	118,738
	Depreciation Expense - 12/31/1998	154,644	(2,913)	B	151,731
	Depreciation Expense - 12/31/1999	190,187	(3,947)	B,C	186,240
	Removal of Accum. Depr. For Retired Plant		(121,764)	D	(121,754)
	<b>TOTAL STAFF ADJUSTMENT</b>		<u>\$ (131,975)</u>		
	<b>TOTAL ACCUMULATED DEPRECIATION</b>				<u>\$ 1,026,695</u>

Explanation of Staff Adjustment:

- A To adjust Accumulated Depreciation to reflect the revised data on Plant additions/retirements. Adjustment A represent the total of adjustments A, B, and C
- B To decrease depreciation expense by \$10,296 which represents overcollected depreciation expenses resulting from the Company's failure to record Plant retirements.
- C To increase 1999 depreciation expense by \$85 to reflect the depreciation expense of the reclassified Plant value of \$2,770 from Maintenance Expense to Plant - Services.
- D To remove \$121,764 from Accumulated Depreciation according to NARUC rules for the retirement of Plant assets.

Accumulated Depreciation according to the Company's half-year convention.

**INCOME STATEMENT**

DESCRIPTION	PRESENT RATES				PROPOSED RATES			
	[A] COMPANY AS FILED	[B] STAFF ADJTS	[C] REF	[C] STAFF ADJUSTED	[D] COMPANY AS FILED	[E] STAFF ADJTS	[E] REF	[F] STAFF ADJUSTED
<b>OPERATING REVENUES:</b>								
Metered Water Sales	\$ 912,925	\$ (3,994)	A	\$ 908,931	\$ 1,380,802	\$ (26,018)	A	\$ 1,354,784
Hook-Up Fees	35,000	-		35,000	35,000	(35,000)	B	-
Misc. Service Revenues	5,274	-		5,274	5,274	-		5,274
C.A.P. Surcharge	-	-		-	-	-		-
<b>Total Operating Revenues</b>	<b>\$ 953,199</b>	<b>\$ (3,994)</b>		<b>\$ 949,205</b>	<b>\$ 1,421,076</b>	<b>\$ (61,018)</b>		<b>\$ 1,360,058</b>
<b>OPERATING EXPENSES:</b>								
Salaries & Wages	104,146	\$ (8,543)	C	\$ 95,603	\$ 104,146	\$ (8,543)	C	\$ 95,603
Purchased Power	156,637	-		156,637	156,637	-		156,637
SRP Ground Water Charge	9,525	-		9,525	9,525	-		9,525
CAP Purchased Water	52,528	-		52,528	52,528	-		52,528
DWR Surcharge	5,329	-		5,329	5,329	-		5,329
Maintenance	86,213	(6,670)	D	79,543	86,213	(6,670)	D	79,543
Chemicals	1,007	-		1,007	1,007	-		1,007
Administrative Office	12,009	-		12,009	12,009	-		12,009
Automotive	4,712	-		4,712	4,712	-		4,712
RVUI Lab Operations	2,003	-		2,003	2,003	-		2,003
Outside Lab	7,134	-		7,134	7,134	-		7,134
Supplies	11	-		11	11	-		11
Postage/Express/UPS	1,804	-		1,804	1,804	-		1,801
Office Supplies	1,575	-		1,575	1,575	-		1,575
Payroll Taxes	11,504	(2,276)	E	9,228	11,504	(2,276)	E	9,228
Employee Benefits	7,399	-		7,399	7,399	-		7,399
Taxes & Licenses	41,820	(13,372)	F	28,448	41,820	(13,372)	F	28,448
Telephone	3,800	-		3,800	3,800	-		3,800
Insurance	7,539	-		7,539	7,539	-		7,539
Legal Fees	739	-		739	739	-		739
Professional Fees	6,248	-		6,248	6,248	-		6,248
Education & Training	205	-		205	205	-		205
Travel and Entertaining	593	-		593	593	-		593
Security Charges	862	-		862	862	-		862
Outside Services	27,839	(172)	G	27,667	27,839	(172)	G	27,667
Miscellaneous	139	(88)	H	51	139	(88)	H	51
Rate Case Expense	12,000	(2,000)	I	10,000	12,000	(2,000)	I	10,000
Depreciation Expense	162,599	(8,441)	J	154,158	162,599	(8,441)	J	154,158
Income Taxes	23,017	52,178	K	75,195	206,799	29,779	K	236,578
Adjustment due to rounding	2	-		-	-	-		-
<b>Total Operating Expenses:</b>	<b>\$ 750,938</b>	<b>\$ 10,616</b>		<b>\$ 761,552</b>	<b>\$ 934,718</b>	<b>\$ (11,786)</b>		<b>\$ 922,932</b>
<b>OPERATING INCOME (LOSS)</b>	<b>\$ 202,261</b>	<b>\$ (14,610)</b>		<b>\$ 187,653</b>	<b>\$ 486,358</b>	<b>\$ (49,232)</b>		<b>\$ 437,126</b>
<b>Other Income/Expenses:</b>								
Interest Income	11,452	(5,656)	L	5,796	11,452	5,656	L	5,796
Interest Expense	178,132	(126,353)	M	51,779	178,132	126,353	M	51,779
<b>Total Other Income/Expenses</b>	<b>\$ 166,680</b>	<b>\$ (120,697)</b>		<b>\$ 45,983</b>	<b>\$ 166,680</b>	<b>\$ 120,697</b>		<b>\$ 45,983</b>
<b>NET INCOME</b>	<b>\$ 35,581</b>	<b>\$ 106,087</b>		<b>\$ 141,670</b>	<b>\$ 319,678</b>	<b>\$ (169,929)</b>		<b>\$ 391,143</b>

**INCOME STATEMENT - STAFF ADJUSTMENT**

**Explanation of Adjustments:**

A. Metered Water Sales - Per Company	\$	912,925	
Per Staff		908,931	\$ (3,994)

To reconcile the Company's revenues to the Bill Count.

B. Hook-Up Fees - Per Company	\$	35,000	
Per Staff		-	\$ (35,000)

To reclassify Hook-Up Fees from Revenues to Contributions.

C. Salaries and Wages - Per Company	\$	104,146	
Per Staff		95,603	(8,543)

Staff decreased Salaries and Wages by \$8,543, from \$104,146 to \$95,603 as a result of the Company's revised Salaries and Wages information.

D. Maintenance - Per Company	\$	86,213	
Per Staff		79,543	\$ (6,670)

Staff adjusted the Company's Maintenance Account by \$6,670 from \$86,213 to \$79,543. This adjustment is comprised of several transactions. Staff has removed a \$285 non-recurring expense for reinstalling interlocking paving stones. Staff reclassified a \$298 line extension from expense to Plant/Services. Staff further reclassified a \$1,342 1-inch service line from an expense to Plant/Services. Staff also reclassified a \$1,130 poly-tuly-tube replacement from expense to Plant/Services. Staff transferred a \$401 line extension to operate a wastewater vacuum system to the Wastewater Division. Staff further transferred a \$950 lift station pump from the Water Division to the Wastewater Division. Staff amortized the cost of a 20-foot extension ladder and a bench vice costing \$192 over a three year period (\$64 per year) to record the non-recurring nature of the purchases. Finally, Staff removed a \$2,200 expense for the rental of a 4,000 gallon fuel tank used as a security backup for the potential of a Y2K difficulty which is non-typical and non-recurring.

E. Payroll Taxes - Per Company	\$	11,504	
Per Staff		9,228	\$ (2,276)

Staff decreased Payroll Taxes by \$2,276, from \$11,504 to \$9,228 as a result of the Company's revised Salaries and Wages information.

F. Taxes & Licenses - Per Company	\$	41,820	
Per Staff		28,448	\$ (13,372)

To remove the Company's pro forma Property Tax to reflect their actual 2000 Property Tax assessment.

G. Outside Services - Per Company	\$	27,839	
Per Staff		27,667	\$ (172)

To remove the water divisions portion of a Y2K Testing expense as a no-recurring, non-typical Test Year expense.

H. Miscellaneous - Per Company	\$	139	
Per Staff		51	\$ (88)

To eliminate the water divisions portion of the Costco membership of Mr. Don Bush not considered to a typical test-year expense.

**INCOME STATEMENT - STAFF ADJUSTMENT**

I. Rate Case Expenses - Per Company	\$ 12,000	
Per Staff	10,000	<u>\$ (2,000)</u>

To eliminate excessive rate case expenses.

J. Depreciation Expense - Per Company	\$ 162,599	
Per Staff	154,158	<u>\$ (8,441)</u>

Plant in Service	\$ 6,491,892
Less: Non Depreciable Plant	<u>42,892</u>

Depreciable Plant	\$ 6,449,000
Composit Rate Allowed	<u>3.064119%</u>
Credit to Accum Depreciation	197,605
Amortization of CIAC @ 0.3064119%	<u>43,447</u>

Pro Forma Annual Depreciation Expense \$ 154,158

K. Income Taxes - Per Company	\$ 23,017	
Per Staff	75,195	<u>\$ 52,178</u>

To reflect Staff's calculation based on revised earnings and expenses before interest & taxes.

L. Interest Income - Per Company	\$ 11,452	
Per Staff	5,796	<u>\$ (5,656)</u>

Remove pro forma adjustment on interest income from Reserve Funds on the Company's proposed long-term debt.

M. Interest Expense - Per Company	\$ 178,132	
Per Staff	51,779	<u>\$ (126,353)</u>

The interest adjustment removes proforma below-the-line interest on Company proposed long-term debt. This portion of the adjustment is the result of Staff's recommendation to delay a decision on the CoBank loan, that is being requested in Rio Verde's Financing Application, until the actual terms of the loan can be reviewed.

**RATE DESIGN**

LINE NO.	MONTHLY USAGE CHARGE	PRESENT RATES	PROPOSED RATES	
			COMPANY	STAFF
1	5/8 X 3/4 - Inch Meter	\$ 7.00	\$ 10.00	\$ 10.00
2	3/4 - " "	7.00	10.00	10.00
3	1 - " "	7.00	10.00	10.00
4	1- 1/2 - " "	-	-	31.67
5	2 - " "	40.00	53.33	53.33
6	3 - " "	-	-	109.67
7	4 - " "	50.00	166.00	166.00
8	6 - " "	100.00	333.00	333.00
9	8 - " "	200.00	666.67	666.67
10	12 - " "	400.00	1,166.67	1,166.67
11	Gallons included in minimum	1,000	0	0
12	Excess of minimum - per 1,000 gallons over minimum:			
13	Potable Water Charge	\$ 1.28	\$ 2.31	\$ 1.95
14	Irrigation Water - Non-potable	0.88	1.14	1.20
15	Irrigation Surcharge (if potable water is used)	0.40	1.17	0.75
16				
17	Interior Sprinkler Rate, when separate service line is required			
18	or 1.00 percent of monthly charge, whichever is applicable.	-	5.00	5.00
19				
20	<b>SERVICE LINE AND METER INSTALLATION CHARGE</b>			
21	5/8 X 3/4 - Inch Meter - Compound Meter	\$ 275.00	\$ 410.00	\$ 410.00
22	3/4 - " " - Compound Meter	300.00	455.00	455.00
23	1 - " " - Compound Meter	325.00	520.00	520.00
24	1- 1/2 - " " - Compound Meter	475.00	740.00	740.00
25	2 - " " - Compound Meter	650.00	1,800.00	1,800.00
26	3 - " " - Compound Meter	1,475.00	2,340.00	2,340.00
27	4 - " " - Compound Meter	2,450.00	3,405.00	3,405.00
28	6 - " " - Compound Meter	4,350.00	6,510.00	6,510.00
29	Compound Meters larger than 6 inches	N/A	Cost	Cost
30				
31	2 - " " - Turbo Meter	N/A	1,235.00	1,235.00
32	3 - " " - Turbo Meter	N/A	1,705.00	1,895.00
33	4 - " " - Turbo Meter	N/A	2,700.00	2,700.00
34	6 - " " - Turbo Meter	N/A	5,035.00	5,035.00
35	Turbo Meters larger than 6 inches	N/A	Cost	Cost
36				
37	Main Extension Tariff, per Rule R14-2-406B	Cost	Cost	Cost
38	Hook-Up Fee for New Service	500.00	500.00	500.00
39				
40	<b>SERVICE CHARGES</b>			
41	Establishment	\$ 25.00	\$ 25.00	\$ 25.00
42	Establishment - After Hours	50.00	50.00	50.00
43	Re-Establishment (Within 12 months)	(b)	(b)	**
44	Re-Establishment (Within 12 months After Hours))	40.00	\$ 40.00	**
45	Reconnection (Delinquent)	(c)	(c)	(c)
46	Reconnection (Delinquent-After Hours)	30.00	30.00	30.00
47	Meter Test (If correct)	25.00	45.00	45.00
48	Meter Re-read (If correct)	5.00	5.00	5.00
49	Minimum Deposit Requirement (Residential)	(a)	(a)	(a)
50	Minimum Deposit Requirement (Non-Residential)	(a)	(a)	(a)
51	Deposit	*	*	*
52	Deposit Interest	*	*	*
53	NSF Check (d)	10.00	10.00	25.00
54	Deferred Payment - Per month	1.50%	1.50%	1.50%
55	Moving Customer Meter (Customer Request)	Cost	Cost	Cost
56	Late Payment Penalty, Per Month	1.50%	1.50%	1.50%
57				
58				
59	(a) <u>Residential</u> - two times the average bill. <u>Non-residential</u> - two and one-half times the average bill.			
60	The Company does not normally require a deposit prior to the provision of service. However, in the			
61	event a customer is disconnected for non-payment, this deposit is required.			
62	(b) Minimum charge times number of full months disconnected.			

**RATE DESIGN - CONTINUED**

63 (c) Actual cost of physical disconnection and reconnection (if same customer) and there shall be no  
64 charge if there is no physical work performed.

65 (d) This charge shall not apply if water service is paid with the same NSF check used to pay for  
66 wastewater service for which an NSF fee is charged.

67

68 IN ADDITION TO THE COLLECTION OF REGULAR RATES, THE UTILITY WILL COLLECT FROM ITS  
69 CUSTOMERS A PROPORTIONATE SHARE OF ANY PRIVILEGE, SALES, USE, AND FRANCHISE TAX.  
70 PER COMMISSION RULE (14-2-409.D5).

71 ALL ADVANCES AND/OR CONTRIBUTIONS ARE TO INCLUDE LABOR, MATERIALS, OVERHEADS,  
72 AND ALL APPLICABLE TAXES.

73 The term "Cost" includes labor, materials and parts, overheads and all applicable taxes.

74

75 • Per Commission Rules (R14-2-403.B)

76 \*\* Months off the system times minimum (R14-2-403.D)

77 [a] 1.50% per month of unpaid balance

78 [b] Adjustable depending on meter size.

**TYPICAL BILL ANALYSIS**  
 General Service 3/4 and 1 - Inch Meter

Average Number of Customers: 1208

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	10,659	\$19.41	\$34.62	\$15.21	78.4%
Median Usage	8,740	\$16.95	\$30.19	\$13.24	78.2%
<u>Staff Proposed</u>					
Average Usage	10,659	\$19.41	\$30.79	\$11.37	58.6%
Median Usage	8,740	\$16.95	\$27.04	\$10.10	59.6%

Present & Proposed Rates (Without Taxes)  
 General Service 3/4 and 1 - Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$7.00	\$10.00	42.9%	\$10.00	42.9%
1,000	7.00	12.31	75.9%	11.95	70.7%
2,000	8.29	14.62	76.5%	13.90	67.8%
3,000	9.57	16.93	76.9%	15.85	65.6%
4,000	10.86	19.24	77.2%	17.80	64.0%
5,000	12.14	21.55	77.5%	19.75	62.7%
6,000	13.43	23.86	77.7%	21.70	61.6%
7,000	14.71	26.17	77.9%	23.65	60.8%
8,000	16.00	28.48	78.1%	25.60	60.1%
9,000	17.28	30.79	78.2%	27.55	59.4%
10,000	18.57	33.10	78.3%	29.50	58.9%
15,000	24.99	44.65	78.7%	39.25	57.1%
20,000	31.42	56.20	78.9%	49.00	56.0%
25,000	37.84	67.75	79.0%	58.75	55.3%
50,000	69.97	125.50	79.4%	107.50	53.6%
75,000	102.09	183.25	79.5%	156.25	53.1%
100,000	134.22	241.00	79.6%	205.00	52.7%
125,000	166.34	298.75	79.6%	253.75	52.5%
150,000	198.47	356.50	79.6%	302.50	52.4%
175,000	230.59	414.25	79.6%	351.25	52.3%
200,000	262.72	472.00	79.7%	400.00	52.3%

**TYPICAL BILL ANALYSIS**

Commercial 1 Inch Meter

Average Number of Customers: 22

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	14,723	\$24.56	\$44.01	\$19.44	79.2%
Median Usage	9,208	\$17.51	\$31.27	\$13.76	78.6%
<u>Staff Proposed</u>					
Average Usage	14,723	\$24.56	\$38.71	\$14.14	57.6%
Median Usage	9,208	\$17.51	\$27.96	\$10.45	59.7%

Present & Proposed Rates (Without Taxes)  
 Commercial 1 Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$7.00	\$10.00	42.9%	\$10.00	42.9%
1,000	7.00	12.31	75.9%	11.95	70.7%
2,000	8.28	14.62	76.6%	13.90	67.9%
3,000	9.56	16.93	77.1%	15.85	65.8%
4,000	10.84	19.24	77.5%	17.80	64.2%
5,000	12.12	21.55	77.8%	19.75	63.0%
6,000	13.40	23.86	78.1%	21.70	61.9%
7,000	14.68	26.17	78.3%	23.65	61.1%
8,000	15.96	28.48	78.4%	25.60	60.4%
9,000	17.24	30.79	78.6%	27.55	59.8%
10,000	18.52	33.10	78.7%	29.50	59.3%
15,000	24.92	44.65	79.2%	39.25	57.5%
20,000	31.32	56.20	79.4%	49.00	56.4%
25,000	37.72	67.75	79.6%	58.75	55.8%
50,000	69.72	125.50	80.0%	107.50	54.2%
75,000	101.72	183.25	80.2%	156.25	53.6%
100,000	133.72	241.00	80.2%	205.00	53.3%
125,000	165.72	298.75	80.3%	253.75	53.1%
150,000	197.72	356.50	80.3%	302.50	53.0%
175,000	229.72	414.25	80.3%	351.25	52.9%
200,000	261.72	472.00	80.3%	400.00	52.8%

**TYPICAL BILL ANALYSIS**

Commercial 2 Inch Meter

Average Number of Customers: 9

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	234,221	\$338.52	\$594.38	\$255.86	75.6%
Median Usage	70,700	\$129.22	\$216.65	\$87.43	67.7%
<u>Staff Proposed</u>					
Average Usage	234,221	\$338.52	\$510.06	\$171.54	50.7%
Median Usage	70,700	\$129.22	\$191.20	\$61.98	48.0%

Present & Proposed Rates (Without Taxes)  
Commercial 2 Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$40.00	\$53.33	33.3%	\$53.33	33.3%
1,000	40.00	55.64	39.1%	55.28	38.2%
2,000	41.28	57.95	40.4%	57.23	38.6%
3,000	42.56	60.26	41.6%	59.18	39.1%
4,000	43.84	62.57	42.7%	61.13	39.4%
5,000	45.12	64.88	43.8%	63.08	39.8%
6,000	46.40	67.19	44.8%	65.03	40.2%
7,000	47.68	69.50	45.8%	66.98	40.5%
8,000	48.96	71.81	46.7%	68.93	40.8%
9,000	50.24	74.12	47.5%	70.88	41.1%
10,000	51.52	76.43	48.4%	72.83	41.4%
15,000	57.92	87.98	51.9%	82.58	42.6%
20,000	64.32	99.53	54.7%	92.33	43.5%
25,000	70.72	111.08	57.1%	102.08	44.3%
50,000	102.72	168.83	64.4%	150.83	46.8%
75,000	134.72	226.58	68.2%	199.58	48.1%
100,000	166.72	284.33	70.5%	248.33	49.0%
125,000	198.72	342.08	72.1%	297.08	49.5%
150,000	230.72	399.83	73.3%	345.83	49.9%
175,000	262.72	457.58	74.2%	394.58	50.2%
200,000	294.72	515.33	74.9%	443.33	50.4%

**TYPICAL BILL ANALYSIS**

Commercial 4 Inch Meter

Average Number of Customers: 0

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	0	\$50.00	\$166.67	\$116.67	233.3%
Median Usage	#N/A	#N/A	#N/A	#N/A	#N/A
<u>Staff Proposed</u>					
Average Usage	0	\$50.00	\$166.00	\$116.00	232.0%
Median Usage	#N/A	#N/A	#N/A	#N/A	#N/A

Present & Proposed Rates (Without Taxes)  
 Commercial 4 Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$50.00	\$166.67	233.3%	\$166.00	232.0%
1,000	50.00	168.98	238.0%	167.95	235.9%
2,000	51.28	171.29	234.0%	169.90	231.3%
3,000	52.56	173.60	230.3%	171.85	227.0%
4,000	53.84	175.91	226.7%	173.80	222.8%
5,000	55.12	178.22	223.3%	175.75	218.8%
6,000	56.40	180.53	220.1%	177.70	215.1%
7,000	57.68	182.84	217.0%	179.65	211.5%
8,000	58.96	185.15	214.0%	181.60	208.0%
9,000	60.24	187.46	211.2%	183.55	204.7%
10,000	61.52	189.77	208.5%	185.50	201.5%
15,000	67.92	201.32	196.4%	195.25	187.5%
20,000	74.32	212.87	186.4%	205.00	175.8%
25,000	80.72	224.42	178.0%	214.75	166.0%
50,000	112.72	282.17	150.3%	263.50	133.8%
75,000	144.72	339.92	134.9%	312.25	115.8%
100,000	176.72	397.67	125.0%	361.00	104.3%
125,000	208.72	455.42	118.2%	409.75	96.3%
150,000	240.72	513.17	113.2%	458.50	90.5%
175,000	272.72	570.92	109.3%	507.25	86.0%
200,000	304.72	628.67	106.3%	556.00	82.5%

**TYPICAL BILL ANALYSIS**

Commercial 6 Inch Meter

Average Number of Customers: 1

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	177,917	\$276.45	\$577.66	\$301.20	109.0%
Median Usage	99,000	\$175.44	\$395.36	\$219.92	125.4%
<u>Staff Proposed</u>					
Average Usage	177,917	\$276.45	\$679.94	\$403.48	146.0%
Median Usage	99,000	\$175.44	\$526.05	\$350.61	199.8%

Present & Proposed Rates (Without Taxes)  
Commercial 6 Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$50.00	\$166.67	233.3%	\$333.00	566.0%
1,000	50.00	168.98	238.0%	334.95	569.9%
2,000	51.28	171.29	234.0%	336.90	557.0%
3,000	52.56	173.60	230.3%	338.85	544.7%
4,000	53.84	175.91	226.7%	340.80	533.0%
5,000	55.12	178.22	223.3%	342.75	521.8%
6,000	56.40	180.53	220.1%	344.70	511.2%
7,000	57.68	182.84	217.0%	346.65	501.0%
8,000	58.96	185.15	214.0%	348.60	491.2%
9,000	60.24	187.46	211.2%	350.55	481.9%
10,000	61.52	189.77	208.5%	352.50	473.0%
15,000	67.92	201.32	196.4%	362.25	433.3%
20,000	74.32	212.87	186.4%	372.00	400.5%
25,000	80.72	224.42	178.0%	381.75	372.9%
50,000	112.72	282.17	150.3%	430.50	281.9%
75,000	144.72	339.92	134.9%	479.25	231.2%
100,000	176.72	397.67	125.0%	528.00	198.8%
125,000	208.72	455.42	118.2%	576.75	176.3%
150,000	240.72	513.17	113.2%	625.50	159.8%
175,000	272.72	570.92	109.3%	674.25	147.2%
200,000	304.72	628.67	106.3%	723.00	137.3%

**TYPICAL BILL ANALYSIS**  
Irrigation 6 Inch Meter (Potable)

Average Number of Customers: 1

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	500	\$100.00	\$334.16	\$234.16	234.2%
Median Usage	500	\$100.00	\$334.16	\$234.16	234.2%
<u>Staff Proposed</u>					
Average Usage	500	\$100.00	\$333.98	\$233.98	234.0%
Median Usage	500	\$100.00	\$333.98	\$233.98	234.0%

Present & Proposed Rates (Without Taxes)  
Irrigation 6 Inch Meter (Potable)

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$100.00	\$333.00	233.0%	\$333.00	233.0%
1,000	100.00	335.31	235.3%	334.95	235.0%
2,000	101.28	337.62	233.4%	336.90	232.6%
3,000	102.56	339.93	231.4%	338.85	230.4%
4,000	103.84	342.24	229.6%	340.80	228.2%
5,000	105.12	344.55	227.8%	342.75	226.1%
6,000	106.40	346.86	226.0%	344.70	224.0%
7,000	107.68	349.17	224.3%	346.65	221.9%
8,000	108.96	351.48	222.6%	348.60	219.9%
9,000	110.24	353.79	220.9%	350.55	218.0%
10,000	111.52	356.10	219.3%	352.50	216.1%
15,000	117.92	367.65	211.8%	362.25	207.2%
20,000	124.32	379.20	205.0%	372.00	199.2%
25,000	130.72	390.75	198.9%	381.75	192.0%
50,000	162.72	448.50	175.6%	430.50	164.6%
75,000	194.72	506.25	160.0%	479.25	146.1%
100,000	226.72	564.00	148.8%	528.00	132.9%
125,000	258.72	621.75	140.3%	576.75	122.9%
150,000	290.72	679.50	133.7%	625.50	115.2%
175,000	322.72	737.25	128.4%	674.25	108.9%
200,000	354.72	795.00	124.1%	723.00	103.8%

**TYPICAL BILL ANALYSIS**

Irrigation 6 Inch Meter

Average Number of Customers: 1

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	3,833	\$102.49	\$337.37	\$234.88	229.2%
Median Usage	2,500	\$101.32	\$335.85	\$234.53	231.5%
<u>Staff Proposed</u>					
Average Usage	3,833	\$102.49	\$337.60	\$235.11	229.4%
Median Usage	2,500	\$101.32	\$336.00	\$234.68	231.6%

Present & Proposed Rates (Without Taxes)  
Irrigation 6 Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$100.00	\$333.00	233.0%	\$333.00	233.0%
1,000	100.00	334.14	234.1%	334.20	234.2%
2,000	100.88	335.28	232.4%	335.40	232.5%
3,000	101.76	336.42	230.6%	336.60	230.8%
4,000	102.64	337.56	228.9%	337.80	229.1%
5,000	103.52	338.70	227.2%	339.00	227.5%
6,000	104.40	339.84	225.5%	340.20	225.9%
7,000	105.28	340.98	223.9%	341.40	224.3%
8,000	106.16	342.12	222.3%	342.60	222.7%
9,000	107.04	343.26	220.7%	343.80	221.2%
10,000	107.92	344.40	219.1%	345.00	219.7%
15,000	112.32	350.10	211.7%	351.00	212.5%
20,000	116.72	355.80	204.8%	357.00	205.9%
25,000	121.12	361.50	198.5%	363.00	199.7%
50,000	143.12	390.00	172.5%	393.00	174.6%
75,000	165.12	418.50	153.5%	423.00	156.2%
100,000	187.12	447.00	138.9%	453.00	142.1%
125,000	209.12	475.50	127.4%	483.00	131.0%
150,000	231.12	504.00	118.1%	513.00	122.0%
175,000	253.12	532.50	110.4%	543.00	114.5%
200,000	275.12	561.00	103.9%	573.00	108.3%

**TYPICAL BILL ANALYSIS**

Irrigation 8 Inch Meter

Average Number of Customers: 2

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	5,729,042	\$5,240.68	\$7,197.78	\$1,957.10	37.3%
Median Usage	99,600	\$286.77	\$780.21	\$493.45	172.1%
<u>Staff Proposed</u>					
Average Usage	5,729,042	\$5,240.68	\$7,542.52	\$2,301.84	43.9%
Median Usage	99,600	\$286.77	\$787.19	\$500.42	174.5%

Present & Proposed Rates (Without Taxes)  
Irrigation 8 Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$200.00	\$666.67	233.3%	\$667.67	233.8%
1,000	200.00	667.81	233.9%	668.87	234.4%
2,000	200.88	668.95	233.0%	670.07	233.6%
3,000	201.76	670.09	232.1%	671.27	232.7%
4,000	202.64	671.23	231.2%	672.47	231.9%
5,000	203.52	672.37	230.4%	673.67	231.0%
6,000	204.40	673.51	229.5%	674.87	230.2%
7,000	205.28	674.65	228.6%	676.07	229.3%
8,000	206.16	675.79	227.8%	677.27	228.5%
9,000	207.04	676.93	227.0%	678.47	227.7%
10,000	207.92	678.07	226.1%	679.67	226.9%
15,000	212.32	683.77	222.0%	685.67	222.9%
20,000	216.72	689.47	218.1%	691.67	219.2%
25,000	221.12	695.17	214.4%	697.67	215.5%
50,000	243.12	723.67	197.7%	727.67	199.3%
75,000	265.12	752.17	183.7%	757.67	185.8%
100,000	287.12	780.67	171.9%	787.67	174.3%
125,000	309.12	809.17	161.8%	817.67	164.5%
150,000	331.12	837.67	153.0%	847.67	156.0%
175,000	353.12	866.17	145.3%	877.67	148.5%
200,000	375.12	894.67	138.5%	907.67	142.0%

**TYPICAL BILL ANALYSIS**

Irrigation 12 Inch Meter

Average Number of Customers: 3

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	14,040,500	\$12,754.76	\$17,172.84	\$4,418.08	34.6%
Median Usage	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
<u>Staff Proposed</u>					
Average Usage	14,040,500	\$12,754.76	\$18,015.27	\$5,260.51	41.2%
Median Usage	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Present & Proposed Rates (Without Taxes)  
Irrigation 12 Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$400.00	\$1,166.67	191.7%	\$1,166.67	191.7%
1,000	400.00	1,167.81	192.0%	1,167.87	192.0%
2,000	400.88	1,168.95	191.6%	1,169.07	191.6%
3,000	401.76	1,170.09	191.2%	1,170.27	191.3%
4,000	402.64	1,171.23	190.9%	1,171.47	190.9%
5,000	403.52	1,172.37	190.5%	1,172.67	190.6%
6,000	404.40	1,173.51	190.2%	1,173.87	190.3%
7,000	405.28	1,174.65	189.8%	1,175.07	189.9%
8,000	406.16	1,175.79	189.5%	1,176.27	189.6%
9,000	407.04	1,176.93	189.1%	1,177.47	189.3%
10,000	407.92	1,178.07	188.8%	1,178.67	188.9%
15,000	412.32	1,183.77	187.1%	1,184.67	187.3%
20,000	416.72	1,189.47	185.4%	1,190.67	185.7%
25,000	421.12	1,195.17	183.8%	1,196.67	184.2%
50,000	443.12	1,223.67	176.1%	1,226.67	176.8%
75,000	465.12	1,252.17	169.2%	1,256.67	170.2%
100,000	487.12	1,280.67	162.9%	1,286.67	164.1%
125,000	509.12	1,309.17	157.1%	1,316.67	158.6%
150,000	531.12	1,337.67	151.9%	1,346.67	153.6%
175,000	553.12	1,366.17	147.0%	1,376.67	148.9%
200,000	575.12	1,394.67	142.5%	1,406.67	144.6%

MOORE

BEFORE THE ARIZONA CORPORATION COMMISSION

CARL J. KUNASEK

Chairman

JIM IRVIN

Commissioner

WILLIAM A. MUNDELL

Commissioner

IN THE MATTER OF THE APPLICATION OF )  
RIO VERDE UTILITIES, INC., FOR AN )  
INCREASE IN ITS WATER AND WASTE- )  
WATER RATES FOR CUSTOMERS WITHIN )  
MARICOPA COUNTY, ARIZONA, AND 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 NOS. WS-02156A-00-0321

WS-02156A-00-0323

DIRECT

TESTIMONY

OF

RODNEY L. MOORE

AUDITOR III

UTILITIES DIVISION

DECEMBER 15, 2000

## TABLE OF CONTENTS

	<u>Page</u>
Executive Summary	
Introduction.....	1
Purpose Of Testimony .....	2
Background.....	3
Summary Of Staff's Recommendations .....	4
Rate Of Return .....	5
Original Cost Rate Base.....	5
Plant-In-Service .....	6
Accumulated Depreciation.....	8
Operating Revenue.....	9
Operating Expenses .....	9
Revenue Requirement And Rate Design .....	12
Staff Recommendations .....	14

## SCHEDULES

Computation Of Increase In Gross Revenue .....	Schedule A
Summary Of Filing .....	RLM-1
Original Cost Rate Base.....	RLM-2
Plant-In-Service .....	RLM-3
Accumulated Depreciation.....	RLM-4
Income Statement.....	RLM-5
Rate Design.....	RLM-6
Typical Bill Analysis .....	RLM-7

**EXECUTIVE SUMMARY**

**UTILITIES DIVISION**

**ARIZONA CORPORATION COMMISSION**

**RIO VERDE UTILITIES, INC. – WASTEWATER DIVISION**

**DOCKET NOS. WS-02156A-00-0321 AND WS-02156A-00-0323**

**APPLICATIONS  
FOR FINANCING APPROVAL  
AND A  
PERMANENT RATE INCREASE**

**DECEMBER 15, 2000**

**Executive Summary**  
**Rio Verde Utilities, Inc. – Wastewater Division**  
**Docket Nos. WS-02156A-00-0321, et al.**

Rio Verde Utilities, Inc. – Wastewater Division (“Company” or “Rio Verde Wastewater”) is an Arizona “C” corporation that services a developed community located ten miles north of the community of Fountain Hills, adjacent to McDowell Mountain Range Park. Rio Verde Utilities, Inc., is a combined water and wastewater utility that provided service to 1,193 customers as of December 31, 1999. Approximately 98 percent of these customers were residential and located in the Rio Verde and Tonto Verde subdivisions.

On May 11, 2000, Rio Verde Wastewater filed an application for approval of a permanent rate increase with the Commission. The application was subsequently docketed on June 9, 2000. Rio Verde Wastewater’s current rates and charges were established by Decision No. 58525, dated February 2, 1994. The application contained a requested increase for both the Water and Wastewater rates.

The Company’s Test Year adjusted income statement reflects adjusted total operating revenue of \$611,278 for the Wastewater Division resulting in a rate of return of 6.18 percent. In this proceeding, the Company has requested a rate of return of 10.56 percent on an adjusted Original Cost Rate Base (“OCRB”) of \$2,967,530 for an operating income of \$313,340.

Staff’s proposed overall rate of return is 9.67 percent. Staff’s adjusted OCRB is \$2,760,524, resulting in a recommended operating income of \$266,942. Staff’s analysis consisted of determining the Company’s cash requirements based on Staff’s adjustments to rate base and operating expenses. It would also generate a positive cash flow of approximately \$343,831 after expenses for operation and maintenance.

Staff recommends against the continuation of accounting for hook-up fees as revenue. Staff also recommends increasing the fees from \$1,000 to \$1,500 per hook-up. All money collected from hook-up fees should be accounted for as contributions to pay for backbone plant.

The basic residential sewer service class is currently charged a monthly flat rate of \$34.00 per month. The Company is proposing an increase to \$46.42 per month, for an increase of \$12.42 or 36.52 percent. Staff proposes the monthly flat rate be increased to \$50.30 per month, for an increase of \$16.30 or 47.94 percent.

Commercial sewer service class is currently charged a monthly flat rate of \$75.00 per month. The Company and Staff are proposing an increase to \$150.00 per month, for an increase of \$75.00 or 100.00 percent.

Commercial - Restaurant sewer service class will be a new classification, but is currently charged a monthly flat rate of \$75.00 per month. The Company and Staff are proposing an increase to \$200.00 per month, for an increase of \$125.00 or 166.67 percent.

Effluent Sales are currently charged a commodity rate of \$0.88 per 1,000 gallons. The Company and Staff are proposing an increase to \$1.17 per 1,000 gallons, for an increase of \$0.29 or 32.95 percent.

The Company does not propose any changes to the other service charges as authorized by Decision No. 58525. Staff proposes increasing the charge for a NSF check from \$10.00 to \$25.00 to bring the fee in line with industry standards. Staff also proposes an increase in the hook-up fees from \$1,000 to \$1,500 with money to be considered as CIAC.

1 **INTRODUCTION**

2 Q. Please state your name and business address.

3 A. My name is Rodney L. Moore. My business address is 1200 West Washington, Phoenix,  
4 Arizona 85007.

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

7 A. I am employed by the Utilities Division of the Arizona Corporation Commission  
8 ("Commission") as an Auditor III.

9  
10 Q. Please state your educational background and work experience.

11 A. I obtained a Bachelor's Degree in Business Administration in 1993 from Athabasca  
12 University. I have attended several training classes and courses regarding auditing, rate  
13 design, income taxes, and other utility related matters. From 1966 to 1993, I worked for  
14 Telus Corporation, Inc., a large telecommunication company, where I assumed various  
15 positions from lineman to office administrator. In 1995, I joined the Arizona Corporation  
16 Commission. I worked in the Consumer Services Section until accepting a position as  
17 Auditor in October 1999. My duties include review and analysis of financial records and  
18 other documents of regulated utilities for accuracy, completeness, and reasonableness,  
19 and the preparation of work papers and schedules resulting in testimony and/or Staff  
20 reports regarding utility applications for increase in rates, financings and other matters.

21  
22 **PURPOSE OF TESTIMONY**

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

24 A. I am presenting Staff's analysis and recommendations concerning the Original Cost Rate  
25 Base ("OCRB"), the revenue requirement and rate design regarding Rio Verde Utilities,  
26 Inc. - Wastewater Division's ("Rio Verde Wastewater" or "Company") rate increase  
27 application officially docketed on June 9, 2000.

28 ...

1 Q. What is the basis of Staff's recommendations?

2 A. Staff performed a regulatory audit of the Company's records to determine whether  
3 sufficient, relevant and reliable evidence exists to support Rio Verde Wastewater's rate  
4 application. The regulatory audit consisted of examining and testing accounting ledgers  
5 and reports, checking the accumulation of amounts in the records, tracing recorded  
6 amounts to source documents, verifying the correct application of data with applicable  
7 standards of third parties, and verifying that the accounting principles applied are in  
8 accordance with the Commission authorized Uniform System of Accounts.

9  
10 In addition, Staff engaged in discussions with Company representatives and made several  
11 written requests for data. Staff also made inquiries to other governmental agencies.

12  
13 Q. What Test Year was used by the Company in this filing?

14 A. Rio Verde Wastewater used as a historical Test Year the twelve months ending  
15 December 31, 1999. Pro forma adjustments were also proposed. These adjustments  
16 consisted of items purported to be "known and measurable".

17  
18 Q. What is meant by "known and measurable"?

19 A. In the context of rate regulation "known and measurable" means that the effects on the  
20 Company can be determined with reasonable certainty. However, the meaning of  
21 "known and measurable" is subject to professional interpretation and judgement.

22  
23 Q. Did Staff accept the Test Year as proposed by the Company?

24 A. Yes. The Test Year selected is the most recent calendar year available and should present  
25 a fairly accurate representation of Rio Verde's financial operation.

26 ...

27 ...

28 ...

1 Q. Does Staff agree with the Company's pro forma adjustments?

2 A. Staff agrees with some of the adjustments which increased its Total Sewer Revenues and  
3 Operating Expenses as a result of the Annualization of the Customer Base. However,  
4 Staff disagrees with pro forma expense adjustments regarding Rate Case Expense,  
5 Income Tax and Interest Expense. These items will be discussed further in my  
6 Testimony under the section – Operating Expenses.

7

8 **BACKGROUND**

9 Q. Please briefly describe, in general, the Company's wastewater system and background.

10 A. Rio Verde Wastewater is an Arizona "C" corporation that services a developed  
11 community located ten miles north of the community of Fountain Hills, adjacent to  
12 McDowell Mountain Range Park. Rio Verde Utilities, Inc., is a combined water and  
13 wastewater utility that provided service to 1,193 customers as of December 31, 1999.  
14 Approximately 98 percent of these customers were residential and located in the Rio  
15 Verde and Tonto Verde subdivisions. Other customers include: Rio Verde Community  
16 Association, Rio Verde Country Club, Rio Verde Golf Course, Rio Verde Recreational  
17 Vehicle Park, Tonto Verde Country Club, and Tonto Verde Golf Course, among others.

18

19 The growth rate has been steady in recent years. Between 1989 and 1999, the growth rate  
20 was between five and eight percent except for 1998 when 111 new customers connected  
21 resulting in a ten percent growth rate. Further information concerning operational aspects  
22 of the Company is contained in Staff Engineer Mr. John A. Chelus' testimony.

23

24 **SUMMARY OF STAFF RECOMMENDATIONS**

25 Q. Would you briefly summarize the Company's and Staff's proposals?

26 A. On May 11, 2000, Rio Verde Wastewater filed an application for approval of a  
27 permanent rate increase with the Commission. The application was subsequently found  
28 sufficient and docketed on June 9, 2000. Rio Verde Wastewater's current rates and

1 charges were established by Decision No. 58525, dated February 2, 1994. The  
2 application contained a requested increase for both the Water and Wastewater rates.

3  
4 The Company stated that the current rates resulted in an adjusted operating income of  
5 \$183,425 for the Wastewater Division. The Company's Test Year adjusted income  
6 statement contains adjusted total operating revenue of \$611,278 for the Wastewater  
7 Division resulting in a rate of return of 6.18 percent.

8  
9 In this proceeding, the Company has requested a rate of return of 10.56 percent on an  
10 adjusted OCRB of \$2,967,530. The Company's requested operating income is \$313,340.  
11 However, this figure is incorrect:  $\$2,967,530$  multiplied by 10.56 percent equals  
12 \$313,371. The Company computed a gross revenue conversion factor of 1.6469 at  
13 proposed revenues. This factor applied to the revenue deficiency results in an increase in  
14 gross revenue requirement of  $(\$313,371 - \$183,425 = \$129,946 \times 1.6469)$  \$214,008.  
15 The Company's filing (Schedule A-1) made several computation errors and requested a  
16 \$213,957 increase in gross revenue requirement.

17  
18 Staff's recommended overall rate of return is 9.67 percent, as explained in Staff witness  
19 Mr. William A. Rigsby's testimony. Staff's adjusted rate base is \$2,760,524.  
20 Consequently, Staff recommended operating income is \$266,942. The Staff adjusted  
21 Test Year operating income is \$146,603. Staff's revenue deficiency is \$120,339. The  
22 1.6469 gross revenue conversion factor applied to the deficiency results in an increase in  
23 gross revenue requirements of  $(\$266,942 - \$146,603 = \$120,339 \times 1.6469)$  \$198,186 or  
24 32.42 percent. (See Schedule A.)

25  
26 The gross revenue conversion factor is derived from calculating the desired taxable  
27 income (based on the "target" operating income), determining the effective income tax  
28 rates at that level and dividing one by the marginal operating income percentage. It is

1 used to reflect how much gross revenue must increase to produce net income after taxes  
2 (i.e., a factor of 1.6469 means gross revenue must increase \$164.69 to produce \$100.00  
3 of net income after taxes).  
4

5 **RATE OF RETURN**

6 Q. Please explain how Staff determined its proposed rate of return.

7 A. Staff's total recommended revenue increase is premised on a required rate of return on  
8 OCRB of 9.67 percent. A summary of this recommended rate of return is explained in  
9 Staff witness Mr. William A. Rigsby's Testimony.  
10

11 **ORIGINAL COST RATE BASE**

12 Q. Has Staff prepared a schedule detailing the components and amounts representing the  
13 Company's proposed and Staff's adjusted OCRB?

14 A. Yes. Please refer to Schedule RLM-2.  
15

16 Q. Is Staff recommending any changes to the Company's proposed OCRB?

17 A. Yes. The Company originally proposed an OCRB of \$2,967,530. Staff is recommending  
18 an OCRB of \$2,760,524, or a difference of \$207,006.  
19

20 Q. Has the Company prepared a schedule showing the elements of Reconstruction Cost New  
21 Rate Base ("RCNRB")?

22 A. No. The Company did not file any RCNRB schedules. Consequently, the RCNRB  
23 information not filed is deemed waived according to Commission rules. Therefore,  
24 OCRB is the same as Fair Value Rate Base ("FVRB").  
25

26 ...

27 ...

28 ...

1 **PLANT-IN-SERVICE**

2 Q. Please explain Staff's adjustments to Plant-In-Service.

3 A. Staff's adjustments to Plant-In-Service resulted in a decrease of \$102,549 as depicted in  
4 Schedule RLM-3.

5  
6 Staff Adjustment A. Staff increased the Services account by a total of \$2,292. This  
7 adjustment consisted of two elements. First, it includes a reclassification of \$1,342 from  
8 Repair and Maintenance operating expense to the services plant account to reflect the  
9 installation (capitalization versus expense) of a sewer service line. Second, it includes a  
10 reclassification of \$950 from the Plant Maintenance Expense - Water Division to the  
11 Wastewater Division for a pump.

12  
13 Staff Adjustment B. The Treatment Plant account was decreased by \$50,197. The  
14 Company's application did not include plant retirements in its Plant-In-Service schedule.  
15 The Treatment Plant account of \$2,396,364 as shown in Schedule B-2, Page 1, reflects a  
16 35 percent reduction of the actual Treatment Plant cost. The 35 percent reduction is the  
17 result of excess capacity at this time. In response to Staff's data request, the Company  
18 indicated that a retirement to the Treatment Plant account of \$77,777 should be recorded.  
19 However, the Treatment Plant account was already reduced by 35 percent.  
20 Consequently, the retirement was reduced by 35 percent or \$50,555. In addition, Staff  
21 reclassified \$550 from the Plant Maintenance Expense account for the fabrication of the  
22 sledge platform. However, as explained above 35 percent of the Treatment Plant  
23 represents excess capacity. Consequently, Staff's adjustment to the Treatment Plant  
24 account is \$358, 65 percent of \$550. Excess capacity of the Treatment Plant is explained  
25 in Staff Engineer Mr. John A. Chelus' Testimony.

26  
27 Staff Adjustment C. The Effluent Lines account was decreased by a total of \$30,800.  
28 This adjustment consisted of two elements. First, it includes a decrease of \$800 reflects

1 retired plant as per the Company's response to Staff's data request. Second, it includes a  
2 decrease of \$30,000 to reflect Staff Engineering's determination that an effluent line was  
3 not used and useful.

4  
5 Staff Adjustment D. The Transportation Equipment account was decreased by a total of  
6 \$22,550 to reflect the retirement of two trucks in the amount of \$14,050, vintage 1978  
7 and 1989. In addition, a 1994 truck in the amount of \$8,675 (Wastewater Division's 50  
8 percent obligation) was deleted when the Company gave the truck as a gift to a retiring  
9 employee. The Company split the cost of the 1994 truck of \$17,350 on a 50-50 basis  
10 between the Water and Wastewater Divisions. Consequently, Staff's adjustment to this  
11 account is \$8,675.

12  
13 Staff Adjustment E. The Tools and Work Equipment account was decreased by \$900 to  
14 reflect retired plant as per the Company's response to Staff's data request.

15  
16 The Company's Schedule B-2 contained computation errors resulting in a net Staff  
17 reduction of \$392. This adjustment consisted of two elements. The first element is an  
18 increase of \$397 to reflect the correct Plant-In-Service as depicted in the Company's  
19 schedule B-2, Page 2D. The second element is a decrease of \$5 because the Company's  
20 computation on Schedule B-2, Page 1, Line 2, incorrectly added the reference number  
21 "5" into the value of Gross Plant.

22  
23 **ACCUMULATED DEPRECIATION**

24 Q. Please explain Staff's adjustment to Accumulated Depreciation.

25 A. Staff decreased Accumulated Depreciation by \$23,157, as depicted in Schedule RLM-4.

26 ...

27 ...

28 ...

1 Staff Adjustment A. A decrease of \$6,609 consists of removing Depreciation Expense  
2 associated with the revised data received from the Company, which provided information  
3 on plant retirements since the last rate case.

4  
5 Staff Adjustment B. This adjustment consists of an increase of \$35 due to the  
6 reclassification of \$1,342 from the Maintenance – Plant operating expense account to the  
7 Plant – Services account. This reclassified plant was identified on an invoice, which  
8 stated the charges were for an installation (not a repair) of a sewer service line.

9  
10 Staff Adjustment C. This adjustment is a reduction to Accumulated Depreciation of  
11 \$14,050 to reflect the retirement of a 1978 truck and a 1989 truck. In Staff's opinion, the  
12 shareholders should absorb the cost of the 1994 truck (Wastewater Division's portion is  
13 half of \$17,350 or \$8,675) given to the employee. Accordingly, Staff did not reduce  
14 Accumulated Depreciation by cost of this vehicle.

15  
16 Q. Please explain Staff's adjustment to Allowance for Working Capital.

17 A. Staff's reduction of \$4,791 was predicated on Staff's adjustments to operating expenses as  
18 depicted in Schedule RLM-5. Moreover, the Allowance for Working Capital was  
19 adjusted to remove Payroll Taxes of \$9,228 and Taxes and Licenses of \$26,593. Staff's  
20 position on this adjustment is explained in Staff witness Mr. Ronald E. Ludders'  
21 Testimony.

22  
23 **OPERATING REVENUE**

24 Q. Did Staff prepare a schedule representative of the Company's and Staff's Test Year  
25 revenues?

26 A. Yes. Please refer to Schedule RLM-5.

27 ...

28 ...

1 Q. Is Staff recommending any changes to the Company's Test Year operating revenue?

2 A. No. Staff accepted the Company's Test Year operating revenues.

3

4 **OPERATING EXPENSES**

5 Q. Did Staff prepare a schedule representative of the Company's and Staff's adjusted  
6 revenues and expenses?

7 A. Yes. Please refer to Schedule RLM-5.

8

9 Q. Is Staff recommending any changes to the Company's proposed operating expenses?

10 A. Yes. The Company proposed operating expenses of \$511,894. Staff is recommending  
11 operating expenses of \$542,524, or a difference of \$30,630.

12

13 Q. Please explain how Staff organized its adjustments to the Company's proposed operating  
14 expenses.

15 A. Staff utilized the Company's expense classifications and made adjustments accordingly.

16

17 Q. What was Staff's adjustment to Salaries and Wages expense?

18 A. Staff Adjustment C. This adjustment reflects a decrease in salaries and wages of \$6,458  
19 based upon information obtained from a data request, which indicated actual Company  
20 salaries and wages.

21

22 Q. What was Staff's adjustment to Maintenance - Plant expense?

23 A. Staff Adjustment D. Staff removed \$1,491 from this expense account. This adjustment  
24 consisted of three elements: first, an increase of \$401 to reflect an invoice, which  
25 indicates a wastewater (versus water division) repair expense; second, a decrease of  
26 \$1,342 to reflect Wastewater Division's 50 percent obligation of an invoice, which  
27 indicates the installation (versus a repair) of a sewer and water line; and third, a decrease

28 ...

1 of \$550 to reflect the cost to fabricate (versus repairing) the sledge press platform as  
2 indicated on an invoice.

3  
4 Q. What was Staff's adjustment to Payroll Taxes expense?

5 A. Staff Adjustment E. Staff decreased payroll taxes by \$2,262. This adjustment reflects  
6 the revised Company salaries and wages information in response to a data request, which  
7 updated payroll taxes.

8  
9 Q. What was Staff's adjustment to Taxes and Licenses expense?

10 A. Staff Adjustment F. Staff decreased property taxes by \$38, from \$21,914 to \$21,876.  
11 Staff used the actual assessment from the most current year 2000 property tax bills  
12 received by the Company.

13  
14 Q. What was Staff's adjustment to Outside Services expense?

15 A. Staff Adjustment G. Staff reduced this expense category by \$173. This adjustment  
16 represents Y2K testing, which is not typical to a test year or a recurring expense.

17  
18 Q. What was Staff's adjustment to Miscellaneous expense?

19 A. Staff Adjustment H. Staff reduced this expense category by \$88. This adjustment  
20 represents a Costco membership fee for the personal use of an employee.

21  
22 Q. What was Staff's adjustment to Rate Case expense?

23 A. Staff Adjustment I. Staff reduced this expense category by \$2,000. This adjustment  
24 represents Staff's recommended rate case expenses of \$30,000 amortized over three years  
25 or \$10,000 annually.

26 ...

27 ...

28 ...

1 Q. What was Staff's adjustment to Depreciation Expense?

2 A. Staff Adjustment J. Staff reduced this expense category by a total of \$14,212. This  
3 adjustment consisted of three elements. First, it includes a decrease of \$2,660 to reflect  
4 Staff's adjustments to Plant-In-Service due to revised Company data submitted in  
5 response to a data request, which updated retired plant. Second, a decrease of \$11,552  
6 reflects Staff's use of the gross value of CIAC to calculate the amortization versus the  
7 Company's calculation using the net value.

8

9 Q. What was Staff's adjustment to Patronage Distribution?

10 A. Staff Adjustment K. Staff decreased this expense category by \$773. This adjustment  
11 represents the actual value of the credit received from CoBank.

12

13 Q. What was Staff's adjustment to Income Tax in the Test Year?

14 A. Staff Adjustment L. Staff increased this expense category by \$56,578. This adjustment  
15 represents a difference in the reduction in the negative income tax between Staff's and  
16 the Company's calculation of Test Year pro forma income tax expense based on Staff's  
17 adjustments to Operating Expenses and the use of interest synchronization. The interest  
18 expense figure for Income Tax purposes was calculated by multiplying Staff's  
19 recommended rate base of \$2,657,164 times a 5.07 percent Staff-recommended cost of  
20 long-term debt.

21

22 Q. What was Staff's adjustment to Interest Income?

23 A. Staff Adjustment M. Staff decreased this expense category by \$9,765. This adjustment  
24 represents the amount of interest earned on the existing debt reserve fund. The removal  
25 of the proposed debt reserve requirement is explained in the Staff witness Mr. William A.  
26 Rigsby's testimony.

27 ...

28 ...

1 Q. What was Staff's adjustment to Interest Expense?

2 A. Staff Adjustment N. Staff decreased this expense category by \$120,546. This adjustment  
3 removed the Company's pro forma below-the-line interest expense on the proposed long-  
4 term debt. This adjustment is consistent with Staff's recommendation to delay a decision  
5 on a CoBank loan, that is being requested by Rio Verde Utilities, Inc., financing  
6 application, until the actual terms of the loan can be reviewed. Further explanation is in  
7 Staff witness Mr. William A. Rigsby's Testimony.

8

9 **REVENUE REQUIREMENT AND RATE DESIGN**

10 Q. Has Staff prepared a schedule representative of the Company's and Staff's proposed rates  
11 and charges?

12 A. Yes. Please refer to Schedule RLM-6.

13

14 Q. Please explain Staff's recommended revenue requirements.

15 A. Staff is recommending rates which produce an operating income of \$744,463. The  
16 Company requested a revenue level of \$825,235, which included \$70,000 derived from  
17 hook-up fees. The Company is requesting a fee of \$1,000 and estimated 70 new  
18 connections annually. Staff's recommended revenue level does not include the  
19 Company's proposed hook-up fee. Staff is recommending an increase in the hook-up fee  
20 of \$500 to \$1,500, versus the Company's requested fee of \$1,000. However, Staff  
21 recommends that the revenues derived from the hook-up fee be recorded as CIAC and not  
22 as revenues. Please refer to Staff Engineer Mr. John A. Chelus' Testimony for further  
23 discussion.

24

25 Q. Please explain Staff's proposed rate design.

26 A. The current and proposed rate design is based on a flat rate. There are three customer  
27 classes and one effluent customer.

28 ...

1 Basic residential sewer service class is currently charged a monthly flat rate of \$34.00 per  
2 month. The Company is proposing an increase to \$46.42 per month, for an increase of  
3 \$12.42 or 36.53 percent. Staff proposes the monthly flat rate be increased to \$50.30 per  
4 month, for an increase of \$16.30 or 47.94 percent.

5  
6 Commercial sewer service class is currently charged a monthly flat rate of \$75.00 per  
7 month. The Company and Staff are proposing an increase to \$150.00 per month, for an  
8 increase of \$75.00 or 100.00 percent.

9  
10 Commercial - Restaurant sewer service class will be a new classification, but is currently  
11 charged a monthly flat rate of \$75.00 per month under the commercial rate. The  
12 Company and Staff are proposing an increase to \$200.00 per month, for an increase of  
13 \$125.00 or 166.67 percent. Restaurants typically place higher demands on the sewer  
14 treatment plant from higher sewage flows as well as from cooking oils and grease. As  
15 such, a new classification and higher monthly charge for this classification has been  
16 proposed.

17  
18 Effluent Sales are currently charged a commodity rate of \$0.88 per 1,000 gallons. The  
19 Company and Staff are proposing an increase to \$1.17 per 1,000 gallons, for an increase  
20 of \$0.29 or 32.95 percent.

21  
22 The Company did not propose any changes to the other service charges as authorized by  
23 Decision No. 58525. Staff proposed only two changes to the service charges. First,  
24 Consumer Services Staff proposed an increase of \$15.00 to \$25.00 for NSF Checks. This  
25 adjustment is more in line with industry standards. Second, Staff Engineering proposed  
26 an increase in the hook-up fees from \$1,000 to \$1,500 to be recorded as CIAC. This  
27 recommendation is explained under Wastewater Section "G. OTHER - Hook-Up Fees"  
28 of Staff Engineer Mr. John A. Chelus' Testimony.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**STAFF RECOMMENDATIONS**

Q. Please summarize Staff's recommendations in this proceedings.

A. Staff recommends that the Commission approve Staff's rates and charges as depicted on Schedule RLM-6.

Staff further recommends that the Company be authorized an operating income of \$256,948 based on Staff's adjustments to rate base and operating expenses.

Staff further recommends a fair value Rate Base of \$2,657,164.

Staff further recommends a provision be included in the Company's tariff to allow for the flow-through of all appropriate state and local taxes as provided for in A.A.C. Rule 14-2-409(D)(5).

Q. Does this conclude your direct testimony?

A. Yes, it does.

**COMPUTATION OF INCREASE IN GROSS REVENUE**

	Company As Filed	Staff Adjusted
Adjusted Rate Base	\$ 2,967,530	\$ 2,760,524
Adjusted Operating Income	\$ 183,425	\$ 146,603
Current Rate Of Return	6.18%	5.31%
Required Operating Income	\$ 313,341	\$ 266,942
Required Rate Of Return	10.56%	9.67%
Operating Income Deficiency	\$ 129,914	\$ 120,339
Gross Revenue Conversion Factor	1.6469	1.6469
Increase in Gross Revenue Requirement	\$ 213,957	\$ 198,186
Test Year Revenue	\$ 611,278	\$ 611,278
Total Required Gross Revenue	\$ 825,235	\$ 744,463
Required Increase In Gross Revenue	35.00%	32.42%

**RIO VERDE UTILITIES, INC. - Wastewater Division**

Docket No. WS-02156A-00-0321, et al.

Test Year Ended December 31, 1999

Schedule RLM-1

Page 1 of 1

**SUMMARY OF FILING**

	Present Rates		Proposed Rates	
	Company As Filed	Staff As Adjusted	Company As Filed	Staff As Adjusted
<b>Revenues</b>				
Sewer Revenues	\$ 538,937	\$ 538,937	\$ 752,894	\$ 742,122
Hook-Up Fees	70,000	70,000	70,000	-
Miscellaneous Service Revenue	2,341	2,341	2,341	2,341
<b>TOTAL OPERATING REVENUE</b>	<b>\$ 611,278</b>	<b>\$ 611,278</b>	<b>\$ 825,235</b>	<b>\$ 744,463</b>
<b>Operating Expenses</b>				
Operation And Maintenance	\$ 395,226	\$ 347,667	\$ 395,226	\$ 347,668
Depreciation	91,101	76,889	91,101	76,889
Taxes Other Than Income		35,821		35,821
Income Tax	(58,474)	4,298	25,568	17,143
<b>TOTAL OPERATING EXPENSES</b>	<b>\$ 427,853</b>	<b>\$ 464,675</b>	<b>\$ 511,895</b>	<b>\$ 477,521</b>
<b>Operating Income/(Loss)</b>	<b>\$ 183,425</b>	<b>\$ 146,603</b>	<b>\$ 313,340</b>	<b>\$ 266,942</b>
Rate Base - O.C.R.B.	\$ 2,967,530	\$ 2,760,524	\$ 2,967,530	\$ 2,760,524
Rate Of Return - O.C.R.B.	6.18%	5.31%	10.56%	9.67%
<b>REQUIRED OPERATING INCOME</b>	<b>N/A</b>	<b>N/A</b>	<b>\$ 313,340</b>	<b>\$ 266,942</b>

**RIO VERDE UTILITIES, INC. - Wastewater Division**

Docket No. WS-02156A-00-0321, et al.

Test Year Ended December 31, 1999

Schedule RLM-2

Page 1 of 1

**ORIGINAL COST RATE BASE**

	Company As Filed	Staff Adjustments	Ref	Staff Adjusted
Gross Utility Plant In Service (35% Excess Removed)	\$ 5,494,303	\$ (102,549)	A	\$ 5,391,754
Less:				
Accumulated Depreciation	(878,277)	18,231	B	(860,046)
Net Utility Plant In Service	\$ 4,616,026	\$ (84,318)		\$ 4,531,708
Less:				
Contributions In Aid Of Construction (CIAC)	\$ (2,281,879)	-		\$ (2,281,879)
Less:				
Amortization Of CIAC	338,685	(2,893)	C	335,791
Net CIAC	\$ (1,943,194)	\$ (2,893)		\$ (1,946,088)
Plus/(Less):				
Meter Deposits	-	-		-
Deferred Income Taxes	\$ (141,682)	\$ 2,941	D	\$ (138,741)
Unamortized Debt Issuance Expense	29,016	(4)	E	29,012
Allowance For Working Capital	64,924	(4,791)	F	60,133
Debt Reserve Requirements - Existing Loan	224,500	-		224,500
Debt Reserve Requirements - Proposed Loan	117,940	(117,940)	G	-
<b>ORIGINAL COST RATE BASE</b>	<b>\$ 2,967,530</b>	<b>\$ (207,006)</b>		<b>\$ 2,760,524</b>

**Explanation Of Adjustments:**

- A See Plant In Service Schedule RLM-3.
- B See Accumulated Depreciation Schedule RLM-4.
- C To Decrease Amortization Of CIAC By \$2,893 To Reflect Staff's Calculations.
- D To Adjust Deferred Income Taxes A Total Of \$2,941 Consisting Of Two Elements:
  - 1- Remove \$2,946 To Reflect Reduced Deferred Income Tax On Adjusted Accumulated Depreciation.
  - 2- Add \$5 To Reflect A Company Calculation Error. The Reference No. "5" Is Included In Its Worksheet Formula.
- E To Decrease Unamortized Debt Issuance Expense By \$4 To Reflect Company's Calculation Error. Company Included Reference Number "4" In Its Addition Formula.
- F To Decrease Allowance For Working Capital By \$4,791 Based Upon Staff's Adjustments To Operating Expenses And To Remove Payroll And Property Taxes Expenses From The Calculation.
- G To Disallow Debt Reserve Requirements - Proposed Loan.

**RIO VERDE UTILITIES, INC. - Wastewater Division**

Docket No. WS-02156A-00-0321, et al.

Test Year Ended December 31, 1999

Schedule RLM-3

Page 1 of 1

**PLANT-IN-SERVICE**

	Company As Filed	Staff Adjustments	Ref	Staff Adjusted
301 Organization	\$ 1,380	\$ -		\$ 1,380
302 Franchise Costs	-	-		-
353 Land And Land Rights	50,513	-		50,513
354 Structures And Improvements	277,883	-		277,883
361 Sewer Line	1,723,698	-		1,723,698
363 Services	560,154	2,292	A	562,446
368 Lift Station	194,885	-		194,885
371 Effluent Pump	29,905	-		29,905
380 Treatment Plant	2,396,364	(50,197)	B	2,346,167
382 Effluent Lines	91,869	(30,800)	C	61,069
391 Transportation Equipment	36,680	(22,550)	D	14,130
393 Tools And Work Equipment	2,303	(900)	E	1,403
394 Laboratory Equipment	58,223	-		58,223
396 Communications Equipment	7,950	-		7,950
398 Other Tangible Plant	62,103	-		62,103
- Adjustment Due To Calculation Errors	392	(392)	F	-
- Adjustment Due To Rounding	1	-		(1)
<b>TOTALS</b>	<b>\$ 5,494,303</b>	<b>\$ (102,549)</b>		<b>\$ 5,391,754</b>

**Explanation Of Adjustments:**

- A To Increase Services By A Total Of \$2,292 Consisting Of Two Elements:
  - 1- Add \$1,342 To Reflect An Invoice Indicating The Installation (Versus Repair) Of A Service Line.
  - 2- Add \$950 To Reflect An Invoice Indicating A Wastewater (Versus Water Division) Pump.
- B To Decrease Treatment Plant By A Total Of \$50,197 Consisting Of Two Elements:
  - 1- Remove \$50,555 To Reflect 65% Of \$77,777 Revised Retirements From Gross Treatment Plant (35% Is Excess Capacity) Per Revised Company Data On Plant Additions/Retirements.
  - 2- Add \$358 To Reflect 65% Of \$550 Reclassified Gross Treatment Plant From Water Division (35% Is Excess Capacity).
- C To Decrease Effluent Lines By A Total Of \$30,800 Consisting Of Two Elements:
  - 1- Remove \$800 To Reflect Revised Company Data On Plant Retirements.
  - 2- Remove \$30,000 To Reflect Staff Engineering's Determination An Effluent Line Is Not Used And Useful.
- D To Decrease Transportation Equipment By A Total Of \$22,550 Consisting Of Three Elements:
  - 1- Remove \$8,675 To Reflect Company's Gift Of A 1994 Truck To A Retired Employee.
  - 2- Remove \$14,050 To Reflect Company's Sale Of A 1978 And A 1989 Truck.
  - 3- Add \$175 To Reverse Company's Entry Reflecting The Sale Of The Two Trucks.
- E To Retire Tools And Work Equipment Of \$900.
- F To Decrease Plant-In-Service By A Total Of \$392 consisting Of Two Elements:
  - 1- Remove \$397 To Reflect Company's Error In Transposing Numbers. Company Values Transferred From Schedules C-2, Page 4, Line 22 To B-2, Page 2, Line 2 Do Not Match.
  - 2- Add \$5 To Reflect Company's Computation Error. Company Included Reference Number "5" In Its Addition Formula.

**RIO VERDE UTILITIES, INC. - Wastewater Division**

Docket No. WS-02156A-00-0321, et al.

Test Year Ended December 31, 1999

Schedule RLM-4

Page 1 of 1

**ACCUMULATED DEPRECIATION**

	Company As Filed	Staff Adjustments	Ref	Staff Adjusted
GROSS Value	\$ 995,868	\$ (20,694)	A,B,C	\$ 975,174
Removal Of 35% Excess Plant Capacity	(117,591)	(2,463)	D	(115,128)
<b>ACCUMULATED DEPRECIATION</b>	<b>\$ 878,277</b>	<b>\$ (23,157)</b>		<b>\$ 860,046</b>

**Explanation Of Adjustment:**

A Accumulated Depreciation - Prior Test Year:

Plus:

Depreciation Expense - 12/31/1993

Depreciation Expense - 12/31/1994

Depreciation Expense - 12/31/1995

Depreciation Expense - 12/31/1996

Depreciation Expense - 12/31/1997

Depreciation Expense - 12/31/1998

Depreciation Expense - 12/31/1999

Removal Of Sold Trucks

Adjustment Due To Rounding

				\$ 307,647
\$ 50,818	\$ (43)	A	\$	50,775
55,691	(186)	A		55,505
63,289	(318)	A		62,971
95,238	(418)	A		94,820
124,464	(945)	A		123,519
136,680	(1,729)	A		134,951
162,040	(3,005)	A,B		159,035
-	(14,050)	C		(14,050)
	-			1

TOTAL STAFF ADJUSTMENT

\$ (20,694)

**TOTAL ACCUMULATED DEPRECIATION**

**\$ 975,174**

**Excess Capacity Of Treatment Plant:**

1999 Test Year Accumulated Depreciation

\$ 3,609,487

Percentage Of Plant Considered Excess

35%

Number Of Yrs. Plant In Service/Depreciated Using 1/2 Yr. convention

3.5

Annual Depreciation Rate

2.6%

Company's Marginal Tax

39.28%

**TOTAL EXCESS CAPACITY**

**\$ (115,128)**

**ADJUSTED ACCUMULATED DEPRECIATION-PER STAFF**

**\$ 860,046**

A To Decrease Annual Depreciation Expenses From 1993 To 1999 By \$6,609 To Reflect Plant Retirements From The Revised Company Data On Plant Additions/Retirements.

B To Increase 1999 Depreciation Expense By \$35 To Reflect Additional Depreciation Expense Due To Reclassified Plant Of \$1,342 From The Maintenance - Plant Expense Category To The Plant Services Account.

C To Decrease Accumulated Depreciation By \$14,050 To Reflect The Retirement Of The 1978 And 1989 Trucks.

D To Decrease The 35% Of Excess Capacity By \$2,463 To Reflect A Decrease In The Treatment Plant Account Due To Revised Company Data On Plant Additions/Retirements.

**RIO VERDE UTILITIES, INC. - Wastewater Division**

Docket No. WS-02156A-00-0321, et al.

Test Year Ended December 31, 1999

Schedule RLM-5

Page 1 of 3

**INCOME STATEMENT**

	PRESENT RATES			PROPOSED RATES		
	Company As Filed	Staff Adjmts	Ref Staff Adjusted	Company As Filed	Staff Adjmts	Ref Staff Adjusted
<b>Operating Revenues</b>						
Sewer Revenues	\$ 538,937	\$ -	\$ 538,937	\$ 752,894	\$ 54,231	A \$ 807,125
Hook-Up Fees	70,000	-	70,000	70,000	(70,000)	B -
Misc. Sewer Revenues	2,341	-	2,341	2,341	-	2,341
<b>TOTAL OPERAT'G REV.</b>	<b>\$ 611,278</b>	<b>\$ -</b>	<b>\$ 611,278</b>	<b>\$ 825,235</b>	<b>\$ (15,769)</b>	<b>\$ 809,466</b>
<b>Operating Expenses</b>						
Salaries And Wages	\$ 102,061	\$ (6,458)	C \$ 95,603	\$ 102,061	\$ (6,458)	C \$ 95,603
Purchased Power	65,656	-	65,656	65,656	-	65,656
Maintenance - Plant	78,032	(1,491)	D 76,541	78,032	(1,491)	D 76,541
Maintenance - Electronics	375	-	375	375	-	375
Equipment Repairs	816	-	816	816	-	816
Chemicals	13,264	-	13,264	13,264	-	13,264
Sludge Processing	14,676	-	14,676	14,676	-	14,676
Administrative Office	12,000	-	12,000	12,000	-	12,000
Automotive	5,538	-	5,538	5,538	-	5,538
RVUI Lab Operations	5,670	-	5,670	5,670	-	5,670
Outside Lab	828	-	828	828	-	828
Supplies	11	-	11	11	-	11
Postage/Express/UPS	1,823	-	1,823	1,823	-	1,823
Office Supplies	1,556	-	1,556	1,556	-	1,556
Payroll Taxes	11,490	(2,262)	E 9,228	11,490	(2,262)	E 9,228
Employee Benefits	7,399	-	7,399	7,399	-	7,399
Taxes And Licenses	26,631	(38)	F 26,593	26,631	(38)	F 26,593
Telephone	2,390	-	2,390	2,390	-	2,390
Insurance	8,772	-	8,772	8,772	-	8,772
Legal Fees	138	-	138	138	-	138
Professional Fees	6,103	-	6,103	6,103	-	6,103
Education And Training	1,740	-	1,740	1,740	-	1,740
Travel and Entertainment	576	-	576	576	-	576
Security Charges	1,724	-	1,724	1,724	-	1,724
Outside Services	27,839	(173)	G 27,666	27,839	(173)	G 27,666
Miscellaneous	719	(88)	H 631	719	(88)	H 631
Rate Case Expense	12,000	(2,000)	I 10,000	12,000	(2,000)	I 10,000
Depreciation	91,101	(14,212)	J 76,889	91,101	(14,212)	J 76,889
Patronage Distribution	(14,600)	773	K (13,827)	(14,600)	773	K (13,827)
Income Taxes	(58,474)	62,772	L 4,298	25,568	56,578	L 82,146
<b>TOTAL OPERAT'G EXP.</b>	<b>\$ 427,853</b>	<b>\$ 36,823</b>	<b>\$ 464,676</b>	<b>\$ 511,894</b>	<b>\$ 30,630</b>	<b>\$ 542,524</b>
<b>OPERAT'G INC./(LOSS)</b>	<b>\$ 183,425</b>	<b>\$ (36,823)</b>	<b>\$ 146,603</b>	<b>\$ 313,341</b>	<b>\$ (46,399)</b>	<b>\$ 266,942</b>
<b>Other Income/(Expense)</b>						
Interest Income	15,410	(9,765)	M 5,645	15,410	(9,765)	M 5,645
Other Income						
Interest Expense	(289,227)	8,508	N (280,719)	(289,227)	120,546	N (168,681)
<b>TOTAL OTHER INC.(EXP.)</b>	<b>\$ (273,817)</b>	<b>\$ (1,257)</b>	<b>\$ (275,074)</b>	<b>\$ (273,817)</b>	<b>\$ 110,781</b>	<b>\$ (163,036)</b>
<b>NET INCOME/(LOSS)</b>	<b>\$ (90,392)</b>	<b>\$ (38,080)</b>	<b>\$ (128,471)</b>	<b>\$ 39,524</b>	<b>\$ 64,382</b>	<b>\$ 103,906</b>

**RIO VERDE UTILITIES, INC. - Wastewater Division**

Docket No. WS-02156A-00-0321, et al.

Test Year Ended December 31, 1999

Schedule RLM-5

Page 2 of 4

**INCOME STATEMENT - STAFF ADJUSTMENTS**

<b>A - SEWER REVENUES</b>	-Per Company	\$ 752,894	
	-Per Staff	\$ 807,125	\$ 54,231
To Increase Proposed Sewer Revenue By \$54,231 To Reflect Staff's Rate Design.			
<b>B - HOOK-UP FEES</b>	-Per Company	\$ 70,000	
	-Per Staff	\$ -	\$ (70,000)
To Decrease Proposed Hook-Up Fees Revenue By \$70,000 To Reflect Staff's Reclassification of Hook-Up Fees To CIAC.			
<b>C - SALARIES AND WAGES</b>	-Per Company	\$ 102,061	
	-Per Staff	\$ 95,603	\$ (6,458)
To Decrease Salaries And Wages Expense By \$6,458 To Reflect Revised Company Data.			
<b>D - MAINTENANCE - PLANT</b>	-Per Company	\$ 78,032	
	-Per Staff	\$ 76,540	\$ (1,491)
To Adjust Maintenance - Plant Expense By A Total Of \$1,491 Consisting Of Three Elements:			
1- Add \$401 To reflect An Invoice Indicating A Wastewater (Versus Water Division) Repair Expense.			
2- Remove \$1,342 To Reflect An Invoice Indicating An Installation (Versus A Repair) Of A Service Line.			
3- Remove \$550 To Reflect An Invoice Indicating The Purchase (Versus Repair) Of A New Plant Item.			
<b>E - PAYROLL TAXES</b>	-Per Company	\$ 11,490	
	-Per Staff	\$ 9,228	\$ (2,262)
To Decrease Payroll Taxes Expense By \$2,262 To Reflect The Reduction In The Salaries And Wages Expense.			
<b>F - TAXES AND LICENSES</b>	-Per Company	\$ 26,631	
	-Per Staff	\$ 26,593	\$ (38)
To Decrease Property Taxes Expense By \$38 To Reflect Actual 2000 Property Tax Assessment (Company's \$21,914 versus Staff's \$21,876).			

**RIO VERDE UTILITIES, INC. - Wastewater Division**

Docket No. WS-02156A-00-0321, et al.

Test Year Ended December 31, 1999

Schedule RLM-5

Page 3 of 4

**INCOME STATEMENT - STAFF ADJUSTMENTS**

<b>G - OUTSIDE SERVICES</b>	-Per Company	\$	27,839	
	-Per Staff	\$	27,666	\$ (173)

To Decrease Outside Services Expense By \$173 To Reflect An Invoice Indicated "Y2K Testing." This Is Not A Recurring Or Typical Test Year Expense.

<b>H - MISCELLANEOUS</b>	-Per Company	\$	719	
	-Per Staff	\$	631	\$ (88)

To Decrease Miscellaneous Expense By \$88 To Reflect An Invoice (Costco Membership) Unrelated To The Utility's Operation.

<b>I - RATE CASE EXPENSE</b>	-Per Company	\$	12,000	
	-Per Staff	\$	10,000	\$ (2,000)

To Decrease Rate Case Expense By \$2,000 To Reflect Staff's Allowance For \$30,000 In Rate Case Expenses, Amortized Over Three Years.

<b>J - DEPRECIATION</b>	-Per Company	\$	91,101	
	-Per Staff	\$	76,889	\$ (14,212)

**Pro Forma Annual Depreciation Expense:**

Plant In Service	\$ 5,391,754
Less: Non Depreciable Plant	\$ 51,893
Depreciable Plant	\$ 5,339,861
Times: Staff Proposed Depreciation Rate	2.60%
Credit To Accumulated Depreciation	\$ 139,037
Less: Amortization Of CIAC @ 2.60375%	\$ (62,148) *
Adjustment Due To Rounding	\$ 1
<b>Pro Forma Annual Depreciation Expense</b>	<b>\$ 76,889</b>

**\* Amortization Of CIAC:**

Contribution(s) In Aid Of Construction (Gross)	\$ 2,386,879
Less: Non Amortizable Contribution(s)	\$ -
Amortizable Contribution(s)	\$ 2,386,879
Times: Staff Proposed Amortization Rate	2.60%
<b>Amortization of CIAC</b>	<b>\$ 62,148</b>

<b>K - PATRONAGE DISTRIBUTION</b>	-Per Company	\$	(14,600)	
	-Per Staff	\$	(13,827)	\$ 773

To Decrease The Patronage Distribution By \$773 To Reflect The Actual Credit Received.

**RIO VERDE UTILITIES, INC. - Wastewater Division**

Docket No. WS-02156A-00-0321, et al.

Test Year Ended December 31, 1999

Schedule RLM-5

Page 4 of 4

**INCOME STATEMENT - STAFF ADJUSTMENTS**

<b>L - INCOME TAX - PRESENT RATES</b>	-Per Company	\$	(58,474)	
	-Per Staff	\$	4,298	\$ 62,772
				<hr/>
<b>- INCOME TAX - PROPOSED RATES</b>	-Per Company	\$	25,568	
	-Per Staff	\$	82,146	\$ 56,578
				<hr/>

To Increase Present Rates' Income Tax By \$62,772 And  
Proposed Rates' Income Tax By \$56,578 To Reflect Staff's Calculation.

<b>M - INTEREST INCOME</b>	-Per Company	\$	15,410	
	-Per Staff	\$	5,645	\$ (9,765)
				<hr/>

To Decrease Interest Income By \$9,765 To Reflect Only The Amount Of  
Interest On The Existing Debt Reserve Fund.

<b>N - INTEREST EXPENSE</b>	-Per Company	\$	(289,227)	
	-Per Staff	\$	(168,681)	\$ 120,546
				<hr/>

To Decrease Interest Expense By \$120,546 To Reflect The Company's  
Response To RUCO's Data Request.

**RIO VERDE UTILITIES, INC. - Wastewater Division**

Docket No. WS-02156A-00-0321, et al.

Test Year Ended December 31, 1999

Schedule RLM-6

Page 1 of 1

**RATE DESIGN**

**Monthly Usage Charge**

Residential  
 Commercial  
 Commercial - Restaurant  
 Effluent Sales (per 1,000 gallons)

**Service Charges**

Establishment  
 Establishment - After Hours  
 Re-Establishment (Within 12 Months)  
 Re-Establishment (Within 12 months After Hours)  
 Reconnection (Delinquent)  
 Reconnection (Delinquent-After Hours)  
 Deposit  
 Deposit Interest  
 NSF Check (A)  
 Deferred Payment Finance Charge, Per Month (B)  
 Late Payment Charge, Per Month  
 Main Extension Tariff, Per Rule R14-2-406B  
 Hook-Up Fee For New Service (C)

	Present Rates	Proposed Rates	
		Company	Staff
Residential	\$ 34.00	\$ 46.42	\$ 50.30
Commercial	75.00	150.00	150.00
Commercial - Restaurant	75.00	200.00	200.00
Effluent Sales (per 1,000 gallons)	0.80	1.17	1.17
Establishment	25.00	25.00	25.00
Establishment - After Hours	50.00	50.00	50.00
Re-Establishment (Within 12 Months)	*	*	*
Re-Establishment (Within 12 months After Hours)	\$ 40.00	\$ 40.00	\$ 40.00
Reconnection (Delinquent)	**	**	**
Reconnection (Delinquent-After Hours)	\$ 30.00	\$ 30.00	\$ 30.00
Deposit	***	***	***
Deposit Interest	6.0%	6.0%	6.0%
NSF Check (A)	\$ 10.00	\$ 10.00	\$ 25.00
Deferred Payment Finance Charge, Per Month (B)	1.5%	1.5%	1.5%
Late Payment Charge, Per Month	1.5%	1.5%	1.5%
Main Extension Tariff, Per Rule R14-2-406B	Cost	Cost	Cost
Hook-Up Fee For New Service (C)	\$ 1,000	\$ 1,000	\$ 1,500

- \* Months Off The System Times Minimum (R14-2-403.D).
- \*\* Actual Cost Of Physical Disconnection And Reconnection (If Same Customer) And There Shall Be No Charge If There Is No Physical Work Performed.
- \*\*\* Per Commission Rules (R14-2-403.B).
  
- A This Charge Shall Not Apply If Wastewater Service Is Paid With The Same NSF Check Used To Pay For Water Service For Which A NSF Fee Is Charged.
- B 1.5% Per Month On Unpaid Balance.
- C All Hook-Up Fees Treated As A Contribution In Aid Of Construction.

**TYPICAL BILL ANALYSIS**

Residential Customers

Average Number Of Customers: 1135

Annualized Number Of Customers: 1170

<u>COMPANY PROPOSED</u>	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Flat Usage Rate	\$34.00	\$46.42	\$12.42	36.53%

<u>STAFF PROPOSED</u>	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Flat Usage Rate	\$34.00	\$50.30	\$16.30	47.94%

**TYPICAL BILL ANALYSIS**

Commercial Customers

Average Number Of Customers: 18

<u>COMPANY PROPOSED</u>	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Flat Usage Rate	\$75.00	\$150.00	\$75.00	100.00%

<u>STAFF PROPOSED</u>	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Flat Usage Rate	\$75.00	\$150.00	\$75.00	100.00%

**TYPICAL BILL ANALYSIS**

Commercial - Restaurant Customers

Average Number Of Customers: 2

<u>COMPANY PROPOSED</u>	<b>Present Rates</b>	<b>Proposed Rates</b>	<b>Dollar Increase</b>	<b>Percent Increase</b>
Flat Usage Rate	\$75.00	\$200.00	\$125.00	166.67%

<u>STAFF PROPOSED</u>	<b>Present Rates</b>	<b>Proposed Rates</b>	<b>Dollar Increase</b>	<b>Percent Increase</b>
Flat Usage Rate	\$75.00	\$200.00	\$125.00	166.67%

**TYPICAL BILL ANALYSIS**

Effluent Sales

Average Number Of Customers: 2

<u>COMPANY PROPOSED</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Commodity Charge Per 1000 gallons		\$0.88	\$1.17	\$0.29	32.95%
Average Usage	2,261,833	\$1,809.47	\$2,646.35	\$836.88	46.25%
Median Usage	1,459,500	\$1,167.60	\$1,707.62	\$540.02	46.25%

<u>STAFF PROPOSED</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Commodity Charge Per 1000 gallons		\$0.88	\$1.17	\$0.29	32.95%
Average Usage	2,261,833	\$1,809.47	\$2,646.35	\$836.88	46.25%
Median Usage	1,459,500	\$1,167.60	\$1,707.62	\$540.02	46.25%

PRESENT & PROPOSED RATES (Without Taxes) - Effluent Sales

<u>Consumption (Gallons)</u>	<u>COMPANY</u>			<u>STAFF</u>	
	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Percent Increase</u>	<u>Proposed Rates</u>	<u>Percent Increase</u>
0	\$0.00	\$0.00	0.00%	\$0.00	0.00%
100,000	\$88.00	\$117.00	32.95%	\$117.00	32.95%
150,000	\$132.00	\$175.50	32.95%	\$175.50	32.95%
200,000	\$176.00	\$234.00	32.95%	\$234.00	32.95%
250,000	\$220.00	\$292.50	32.95%	\$292.50	32.95%
500,000	\$440.00	\$585.00	32.95%	\$585.00	32.95%
750,000	\$660.00	\$877.50	32.95%	\$877.50	32.95%
1,000,000	\$880.00	\$1,170.00	32.95%	\$1,170.00	32.95%
1,500,000	\$1,320.00	\$1,755.00	32.95%	\$1,755.00	32.95%
2,000,000	\$1,760.00	\$2,340.00	32.95%	\$2,340.00	32.95%
2,250,000	\$1,980.00	\$2,632.50	32.95%	\$2,632.50	32.95%
2,500,000	\$2,200.00	\$2,925.00	32.95%	\$2,925.00	32.95%
2,750,000	\$2,420.00	\$3,217.50	32.95%	\$3,217.50	32.95%
3,000,000	\$2,640.00	\$3,510.00	32.95%	\$3,510.00	32.95%

CHELUS

BEFORE THE ARIZONA CORPORATION COMMISSION

CARL J. KUNASEK  
Chairman

JIM IRVIN  
Commissioner

WILLIAM A. MUNDELL  
Commissioner

IN THE MATTER OF THE APPLICATION OF ) DOCKET NOS. WS-02156A-00-0321  
RIO VERDE UTILITIES, INC. FOR AN ) WS-02156A-00-0323  
INCREASE IN ITS WATER AND )  
WASTEWATER RATES FOR CUSTOMERS )  
WITHIN MARICOPA COUNTY, ARIZONA )  
AND 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. )

DIRECT

TESTIMONY

OF

JOHN A. CHELUS

UTILITIES ENGINEER

UTILITIES DIVISION

DECEMBER 15, 2000

**TABLE OF CONTENTS**

	<u>Page</u>
Summary.....	i through ii
I. Introduction.....	1
II. Description of Engineering Report.....	2
III. Summary of Engineering Staff Recommendations.....	3

**SCHEDULES**

Engineering Report – Water Division.....	JC-1
Engineering Report – Wastewater Division .....	JC-2

**SUMMARY OF DIRECT TESTIMONY  
OF JOHN A. CHELUS  
RIO VERDE UTILITIES, INC.  
DOCKET NO. WS-02156A-00-0321**

**Rio Verde Utilities – Water**

1. The Company is in compliance with ADEQ and Maricopa County regulations. Maricopa County has determined that this system is currently delivering water that does not exceed any MCL (maximum contaminant level) and meets the Safe Drinking Water Act quality requirements.
2. The Company is in good standing with ADWR and has met all their requirements.
3. The Company reported water testing costs of \$2,003 for on-site lab testing and \$7,134 for outside lab testing for the water division. Engineering considers these costs reasonable.
4. Engineering recommends not recording hook-up fees as revenue. All money collected from hook-up fees should be used as contributions to pay for backbone plant such as wells, storage tanks, pressure tanks and booster pumps and not to subsidize current customers' monthly water bills. Engineering recommends that the hook-up fee for water service be raised to \$1,000 from \$500 per connection and that all hook-up fee monies be recorded as contribution to plant.
5. Engineering found all wells, storage tanks, booster pumps, pressure tanks and other related water plant to be used and useful. According to the Company, any distribution mains, which have been built, that are not serving customers are contributed plant and therefore netted out of rate base. The Company supplied Staff, through a data request, with a list of plant items that have been retired since the last rate increase, which were accounted for by Accounting Staff in the final rate base total.
6. The Company is proposing higher meter and service line installation charges as shown in Company application Schedule H-3. Engineering considers these charges reasonable and recommends approval.

## Summary of Direct Testimony

### Rio Verde Utilities – Wastewater

1. The Company is in compliance with ADEQ and Maricopa County regulations. Maricopa County inspected the facilities on August 15, 2000, and found no deficiencies.
2. Engineering found all wastewater treatment facilities and other related wastewater plant to be used and useful. The Company reduced its plant in service for the wastewater facilities by \$1,290,350 from \$3,686,714 to \$2,396,364 or 35% due to excess capacity. Engineering agrees with this adjustment.
3. According to the Company, any collection mains, which have been built, that are not serving customers are contributed plant and therefore netted out of rate base. The Company supplied Staff, through a data request, with a list of plant items that have been retired since the last rate increase, which should be accounted for in the final rate base total. Additionally, the Company identified an effluent line, which is installed but not in use at the present time. This line serves one of the Tonto Verde Lakes on the Ranch Course. The estimated value is \$30,000. An adjustment was made to rate base by Accounting Staff.
4. The Company reported wastewater testing costs of \$5,670 for on-site lab testing and \$828 for outside lab testing for the wastewater division during the 1999 test year. Engineering considers these costs reasonable.
5. Engineering recommends not recording hook-up fee monies as revenue. All money collected from hook-up fees should be used as contributions to pay for backbone plant such as wastewater treatment plant equipment, lift stations, sludge disposal equipment and effluent pumping equipment and not to subsidize current customers' monthly wastewater bills. Engineering recommends that the hook-up fee for wastewater service be raised to \$1,500 from \$1,000 per connection and that all hook-up fee revenue be recorded as contribution to plant.

1 **INTRODUCTION**

2 Q. Please state your name and business address.

3 A. My name is John A. Chelus. My business address is 1200 West Washington Street,  
4 Phoenix, Arizona, 85007.

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

7 A. I am employed by the Utilities Division of the Arizona Corporation Commission  
8 (Commission) as a Utilities Engineer.

9  
10 Q. How long have you held this position?

11 A. Since September 1990.

12  
13 Q. What are your responsibilities as a Utilities Engineer?

14 A. I inspect, investigate, and evaluate water and wastewater systems; obtain data, prepare  
15 original cost studies, and investigative reports; suggest corrective action and provide  
16 technical recommendations on water and wastewater system deficiencies; and provide  
17 written and oral testimony on rate and other cases before the Commission.

18  
19 Q. How many water and sewer companies have you analyzed for the Utilities Division?

20 A. I have analyzed 100 plus companies in various capacities for the Utilities Division.

21  
22 Q. Have you testified before the Commission previously?

23 A. Yes, I have.

24  
25 Q. What is your educational background?

26 A. I graduated from the Rochester Institute of Technology in 1976 with a Bachelors Degree  
27 in Civil Engineering and from Oklahoma State University in 1978 with a Masters Degree  
28 in Environmental Engineering.

1 Q. Briefly describe your pertinent work experience.

2 A. I worked for the Dallas Water Utilities as an engineer in the Wastewater Division, and  
3 then in the Engineering Design Division from 1978 to 1981. I moved to Grand Junction,  
4 Colorado and worked for Multi Mineral Corporation as a research engineer until 1982. I  
5 then worked for Westwater Engineering Consultants as a design engineer. In 1983, I was  
6 employed by Sauter Construction as a construction engineer for the construction of the  
7 Ute Water Treatment facilities in Palisade, Colorado. In 1984 and 1985, I was employed  
8 by the City of Grand Junction as a Grade IV wastewater operator at their 12 million  
9 gallon per day activated sludge treatment facility. In 1986, I moved to Phoenix and  
10 began working for the Arizona Department of Environmental Quality (ADEQ), Office of  
11 Water Quality, as a design review engineer, and then as a field engineer. I stayed at  
12 ADEQ until transferring to the Commission in 1990.

13

14 Q. Were you assigned to provide an engineering evaluation of Rio Verde Utilities Inc. for  
15 this rate proceeding?

16 A. Yes.

17

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

19 A. The purpose of my testimony in this proceeding is to present the findings of my  
20 engineering evaluation of the Rio Verde Utilities Inc. (Company). Those findings are  
21 contained in two Engineering Reports, which I have prepared for this proceeding. The  
22 reports are included as Schedule JC-1 Rio Verde Utilities - Water Division and JC-2 Rio  
23 Verde Utilities - Wastewater Division as detailed in the list of schedules.

24

25 Q. How is the remainder of your testimony organized?

26 A. For the remainder of the testimony, I will discuss other pertinent issues and summarize  
27 my recommendations.

28 ...

1 **DESCRIPTION OF ENGINEERING REPORT**

2 Q. Would you briefly describe what was involved in preparing the Engineering Report for  
3 the Company in this rate proceeding?

4 A. I received compliance data reports for the water and wastewater systems supplied by  
5 Maricopa County, and made on-site inspections to determine the condition of the systems  
6 and to determine which plant items listed by the Company in the application were or  
7 were not used and useful. I contacted the Arizona Department of Water Resources  
8 (ADWR) to determine if the water system complied with ADWR requirements. I also  
9 obtained information from the Company regarding growth over the past few years, water  
10 usage data, water quality data, service areas, Central Arizona Project (CAP) allocations,  
11 etc. Based on this information, I made my evaluation and prepared my Engineering  
12 report.

13  
14 Q. Do Schedules JC-1 and JC-2 accurately describe Rio Verde Utilities, Inc. as you found it  
15 during your investigation?

16 A. Yes, to the best of my knowledge.  
17

18 **SUMMARY OF ENGINEERING STAFF RECOMMENDATIONS**

19 Rio Verde Utilities – Water Division

20 Q. Please summarize your findings and recommendations for the Rio Verde – Water  
21 Division contained in the Engineering Report, Schedule JC-1.

22 A. The following findings and recommendations are contained in Engineering Report JC-1:  
23 • The Company is in compliance with ADEQ and Maricopa County regulations. Maricopa  
24 County has determined that this system is currently delivering water that does not exceed  
25 any MCL (maximum contaminant level) and meets the Safe Drinking Water Act quality  
26 requirements.  
27 • The Company is in good standing with ADWR and has met all their requirements.

28 ...

- 1       • The Company reported water testing costs of \$2,003 for on-site lab testing and \$7,134 for  
2       outside lab testing for the water division. Engineering considers these costs reasonable.
- 3       • Engineering recommends not recording hook-up fees as revenue. All money collected  
4       from hook-up fees should be used as contributions to pay for backbone plant such as  
5       wells, storage tanks, pressure tanks and booster pumps and not to subsidize current  
6       customers' monthly water bills. Engineering recommends that the hook-up fee for water  
7       service be raised to \$1,000 from \$500 per connection and that all hook-up fee monies be  
8       used as a contribution to plant.
- 9       • Engineering found all wells, storage tanks, booster pumps, pressure tanks and other  
10      related water plant to be used and useful. According to the Company, any distribution  
11      mains, which have been built, that are not serving customers are contributed plant and  
12      therefore netted out of rate base. The Company supplied Staff, through a data request,  
13      with a list of plant items that have been retired since the last rate increase, which were  
14      accounted for by the Accounting Staff in the final rate base total.
- 15      • The Company is proposing higher meter and service line installation charges as shown in  
16      Company application Schedule H-3. Engineering considers these charges reasonable and  
17      recommends approval.

18      Rio Verde Utilities – Wastewater Division

19      Q.     Please summarize your findings and recommendations for the Rio Verde – Wastewater  
20      Division contained in the Engineering Report, Schedule JC-2.

21      A.     The following findings and recommendations are contained in Engineering Report JC-2

- 22      • The Company is in compliance with ADEQ and Maricopa County regulations. Maricopa  
23      County inspected the facilities on August 15, 2000, and found no deficiencies.
- 24      • Engineering found all wastewater treatment facilities and other related wastewater plant  
25      to be used and useful. The Company reduced its plant in service for the wastewater  
26      facilities by \$1,290,350 from \$3,686,714 to \$2,396,364 or 35% due to excess capacity.  
27      Engineering agrees with this adjustment.

28      ...

- 1       • According to the Company, any collection mains, which have been built, that are not  
2       serving customers are contributed plant and therefore netted out of rate base. The  
3       Company supplied Staff, through a data request, with a list of plant items that have been  
4       retired since the last rate increase, which the Accounting Staff accounted for in the final  
5       rate base total. Additionally, the Company identified an effluent line, which is installed  
6       but not in use at the present time. This line serves one of the Tonto Verde Lakes on the  
7       Ranch Course. The estimated value is \$30,000. An adjustment was made by Accounting  
8       Staff to rate base.
- 9       • The Company reported wastewater testing costs of \$5,670 for on-site lab testing and \$828  
10      for outside lab testing for the wastewater division during the 1999 test year. Engineering  
11      considers these costs reasonable.
- 12     • Engineering recommends not using hook-up fees as revenue. All money collected from  
13      hook-up fees should be used as contributions to pay for backbone plant such as  
14      wastewater treatment plant equipment, lift stations, sludge disposal equipment and  
15      effluent pumping equipment and not to subsidize current customers' monthly wastewater  
16      bills. Engineering recommends that the hook-up fee for wastewater service be raised to  
17      \$1,500 from \$1,000 per connection and that all hook-up fee monies be used as a  
18      contribution to plant.

19  
20    Q. Does this conclude your testimony?

21    A. Yes.  
22  
23  
24  
25  
26  
27  
28

**ENGINEERING REPORT  
FOR  
RIO VERDE UTILITIES, INC  
WATER UTILITY  
DOCKET NO. WS-02156A-00-0321**

**A. PURPOSE OF REPORT**

This report was prepared in response to the Company's submission of an application for an increase in rates. John A. Chelus, Utilities Engineer, Ronald E. Ludders, Senior Rate Analyst and Rodney L. Moore, Auditor II, inspected the water system on June 29, 2000. Mr. Donald Bush and Mr. Michael L. Kleminski represented the Company.

**B. LOCATION OF COMPANY**

The system is located in Maricopa County about 2 miles northeast of Fountain Hills or about 11 miles north of Shea Boulevard on Fountain-Hills Boulevard, which turns into McDowell Mountain Road. The area is adjacent to McDowell Mountain Regional Park and directly north of the Fort McDowell Reservation. The system serves Section 36 and part of Section 35 in Township 5N Range 6E, Section 6 and part of section 7 in Township 4N Range 7E, and Section 31, and parts of Sections 29,30 and 32 in Township 5N Range 7E. Figure 1 and 2 detail the location of the Company in relation to other Commission regulated companies in the County and in the immediate area.

**C. DESCRIPTION OF SYSTEM**

The major components of the system are located at fourteen active sites. All of the well sites are located northeast of the subdivided area, adjacent to the Verde River. There are three areas that the system serves; Rio Verde, Tonto Verde, and Tonto Vista. Besides serving residential customers and a few commercial customers, the Company serves the area golf courses and lakes. Tonto Vista has 11 lakes, Rio Verde 4 and Tonto Verde 5. Effluent from the wastewater facilities is pumped to three of the lakes. A majority of the customers are residential. The few commercial customers include a convenience store, community center, golf course clubhouse, fire station, church, golf course maintenance complex and two sales and administration office buildings.

In order to maintain fluoride levels below 2.0 mg/l, the Company blends the low fluoride wells No. 1 and No. 4 with the high fluoride wells No. 2 and No. 6.

The wells at sites No. 1 & 4 are shallow wells, which are influenced by surface water. Because of this, the Company must keep track of the water pumped from these wells and compensate Salt River project for any usage. The Company also has a Central Arizona Project (CAP) allocation from the Central Arizona Water Conservation District. Part of this CAP credit is given to Salt River project in exchange for water pumped from the two Company wells. The

Company has a CAP allocation of 812-acre feet per year and is using approximately 180 acre-ft. per year at the present time.

**Well Site No. 1** contains Well No. 55-606073. The well casing is 12 inches in diameter, drilled to a depth of 165 feet and is equipped with a 25 horsepower turbine pump capable of producing 301 gallons per minute. The well has a 6-inch diameter meter. The well is surrounded by a block wall enclosure. Use: Potable Water

**Well Site No. 2** contains Well No. 55-606071, a chlorinator and an emergency generator. The well casing is 18 inches in diameter, drilled to a depth of 682 feet and is equipped with a 75 horsepower turbine pump capable of producing 682 gallons per minute. The well is equipped with a 6 inch meter. The site is approximately 40 feet by 50 feet and is surrounded by a six foot high chain link fence. Use: Potable Water

**Well Site No. 3** contains Well No. 55-561190 with a 18 inch diameter casing and is drilled to a depth of 1,050 feet. The well is equipped with a 200 horsepower turbine pump capable of producing 896 gallons per minute. The well is equipped with a 12 inch meter. This well is high in fluoride and is used for irrigation of the golf courses. The site is surrounded by a six-foot high chain link fence and is approximately 50 feet by 50 feet. This well replaces Well No. 55-606072, which had its casing collapse. Use: Irrigation

**Well Site No. 4** contains Well No. 55-506808 with a 16 -12 inch diameter casing that is drilled to a depth of 208 feet. The well is equipped with a 10 horsepower turbine pump capable of producing 112 gallons per minute. The well has a 12 inch meter. The site is approximately 50 feet by 50 feet and is surrounded by a six-foot high chain link fence. There is a chlorinator at this site. This is an SRP exchange well. Use: Potable Water

**Well Site No. 5** contains Well No. 55-510881 which has a 16 inch diameter casing that is drilled to a depth of 1,073 feet. The well is equipped with a 200 horsepower pump that is capable of producing 907 gallons per minute. The well is equipped with an 8 inch meter. This site has two, 100 foot deep monitoring wells that are used to determine SRP water rights usage. This well is used for irrigation of the golf courses. A block wall surrounds the well site. Use: Irrigation

**Well Site No. 6** contains Well No. 55-511320 which has a 16 inch diameter casing that is drilled to a depth of 665 feet and is equipped with a 50 horsepower turbine pump capable of producing 366 gallons per minute. The well has a 6-inch diameter meter. The site contains two 100 foot deep monitoring wells used for SRP water rights usage determination. A block wall surrounds the site. Use: Potable Water

**Well Site No. 7** – Well is used for irrigation of golf courses.

**Well Site No. 8** is located near the storage tank site and contains Well No. 55-561226 which has a 18 inch diameter casing that is drilled to a depth of 1,050 feet and is equipped with a

400 horsepower variable speed drive turbine pump capable of producing 2,000 gpm. Use: Irrigation

**Rio Verde Storage Tank Site No. 9** is located near the northeast corner of Rio Verde unit 8. It contains a 300,000-gallon storage tank, 10,000-gallon pressure tank, two 30-horsepower booster pumps, and one 50-horsepower booster pump. The site also has a 150-kilowatt standby power diesel generator. The site is approximately 100 feet by 100 feet and is surrounded by a six-foot high chain link fence.

**Site No. 10** is located on Poco Rio Drive, adjacent to the 5th hole on the Quail Run course. It contains a 25 horsepower Variable Frequency Drive (VFD) booster pump located in a 4 foot by 5-foot block building.

**Sites Nos. 11&12** located west on Rio Verde Road and is adjacent to the Tonto Vista Tonto Verde subdivisions. These sites contain 30 and 50 horsepower booster pumps in underground vaults. Both of the booster pump sites on Rio Verde Road are currently used to supply water through metered services to a total of 14 decorative lakes in the Tonto Vista areas, but no residences.

**Asher Hill Tank Site** consists of a 744,000-gallon storage tank. A wrought iron fence surrounds it.

**Asher Hil Booster Pump Site** is located next to Well No. 6. It contains 2-300 hp turbine booster pumps. A block wall encloses the site.

The distribution system consists of the following plant items:

MAINS		
Size	Material	Length (feet)
2"	PVC	1,585
3"	PVC	6,186
4"	PVC	57,348
6"	PVC	71,719
8"	PVC	69,561
8"	DIP	553
8"	Transite	29,084
10"	Transite	700
12"	PVC	20,444
12"	DIP	3,234
12"	Transite	1,700
16"	DIP	1,844

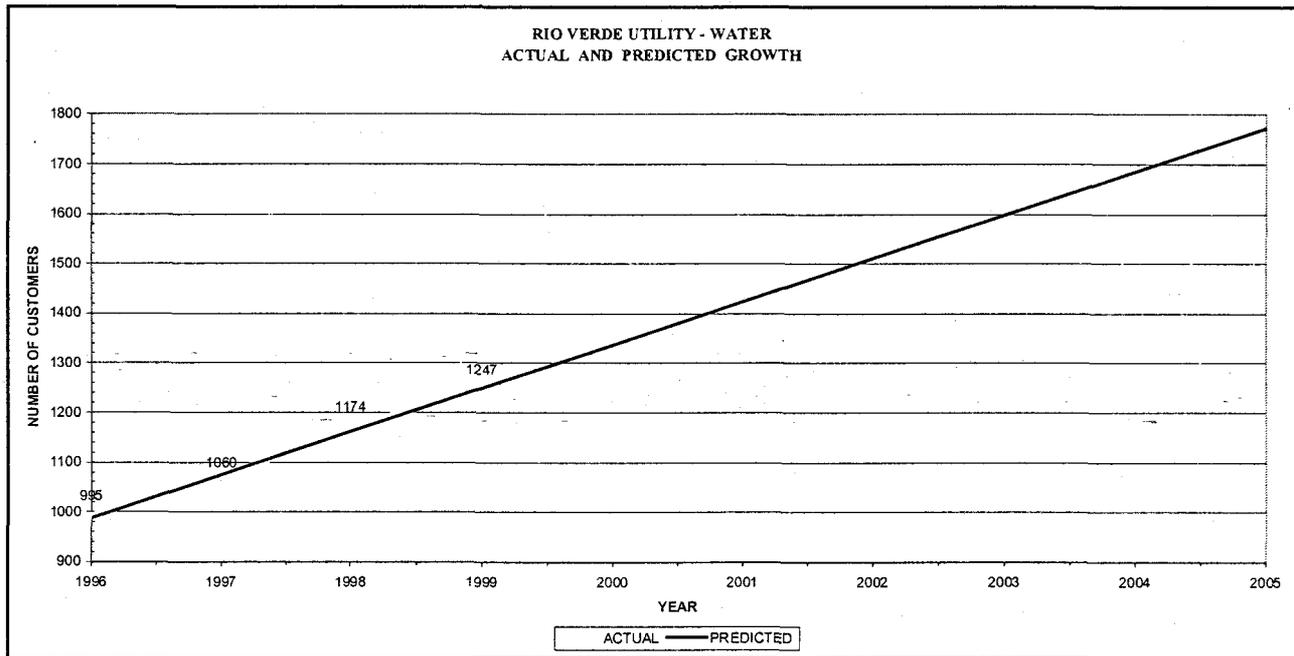
Meters	
Size	Quantity
5/8 " x 3/4"	
3/4"	368
1"	861
1- 1/2 "	5
2"	5
4" Compound	1
6" Compound	2
8" Compound	4
12 " Turbo	2

Fire Hydrants	
Type	Quantity
Standard	198

Structures	
Type	Description
Building	Lab/Office

**D. GROWTH PROJECTIONS**

The number of customers has grown from approximately 995 at the end of 1996 to 1,247 at the end of 1999. This is a growth rate of approximately 84 customers per year. At this growth rate, the Company could have approximately 1,751 customers by the end of 2005.

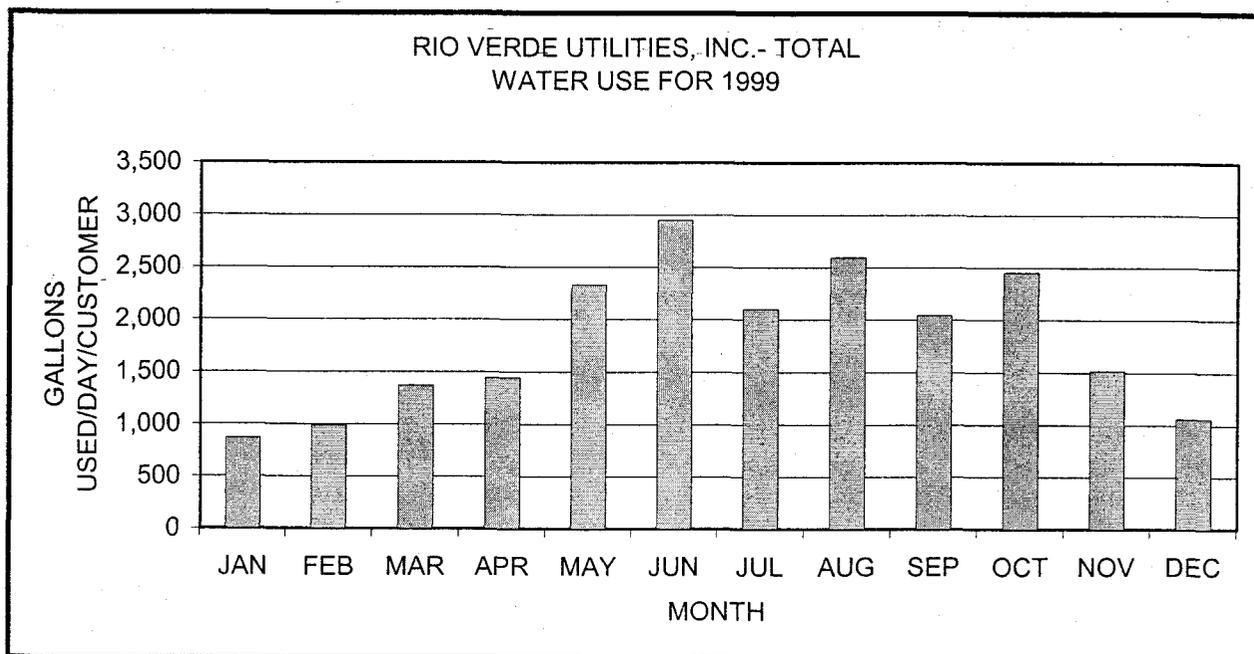


**E. WATER USE**

The following graph and table depicts water usage during the test year. The largest water usage occurred in June when 108,507,516 gallons were sold to 1,226 customers. This equates to 2,950 gallons per customer per day. The smallest water usage occurred in January when 31,750,224 gallons were sold to 1,183 customers. This equates to 866 gallons per day.

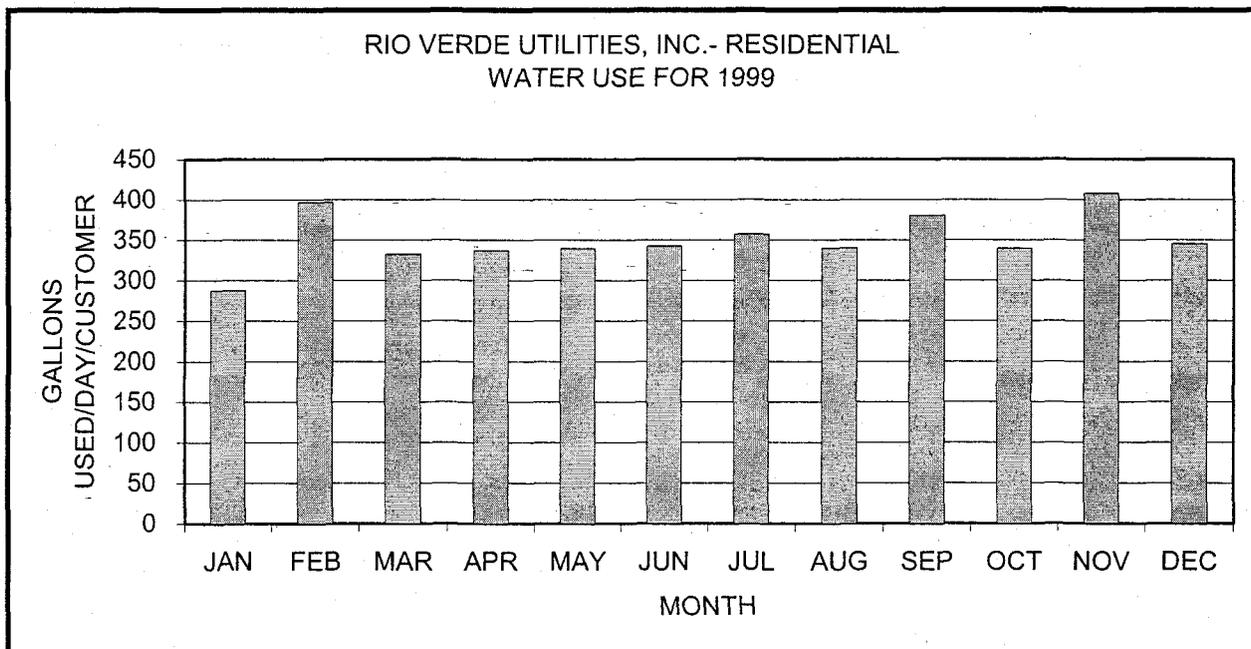
**Total Water Use During 1999**

	<b>Gallons Sold Per Month</b>	<b>Number of Connections</b>	<b>Gallons Used Per Connection Per Day</b>	<b>Days in Month</b>
JANUARY	<b>31,750,224</b>	1183	<b>866</b>	31
FEBRUARY	32,863,952	1188	988	28
MARCH	50,915,157	1199	1,370	31
APRIL	52,038,696	1203	1,442	30
MAY	87,836,379	1216	2,330	31
JUNE	<b>108,507,516</b>	1226	<b>2,950</b>	30
JULY	79,946,758	1226	2,104	31
AUGUST	99,562,739	1237	2,596	31
SEPTEMBER	76,245,113	1244	2,043	30
OCTOBER	94,376,919	1240	2,455	31
NOVEMBER	56,723,722	1245	1,519	30
DECEMBER	40,933,376	1246	1,060	31
<b>Total</b>	<b>811,700,551</b>			
<b>Max</b>	<b>108,507,516</b>	<b>1,246</b>	<b>2,950</b>	
<b>Min</b>	<b>31,750,224</b>	<b>1,183</b>	<b>866</b>	
<b>Avg</b>	<b>67,641,713</b>	<b>1,221</b>	<b>1,810</b>	



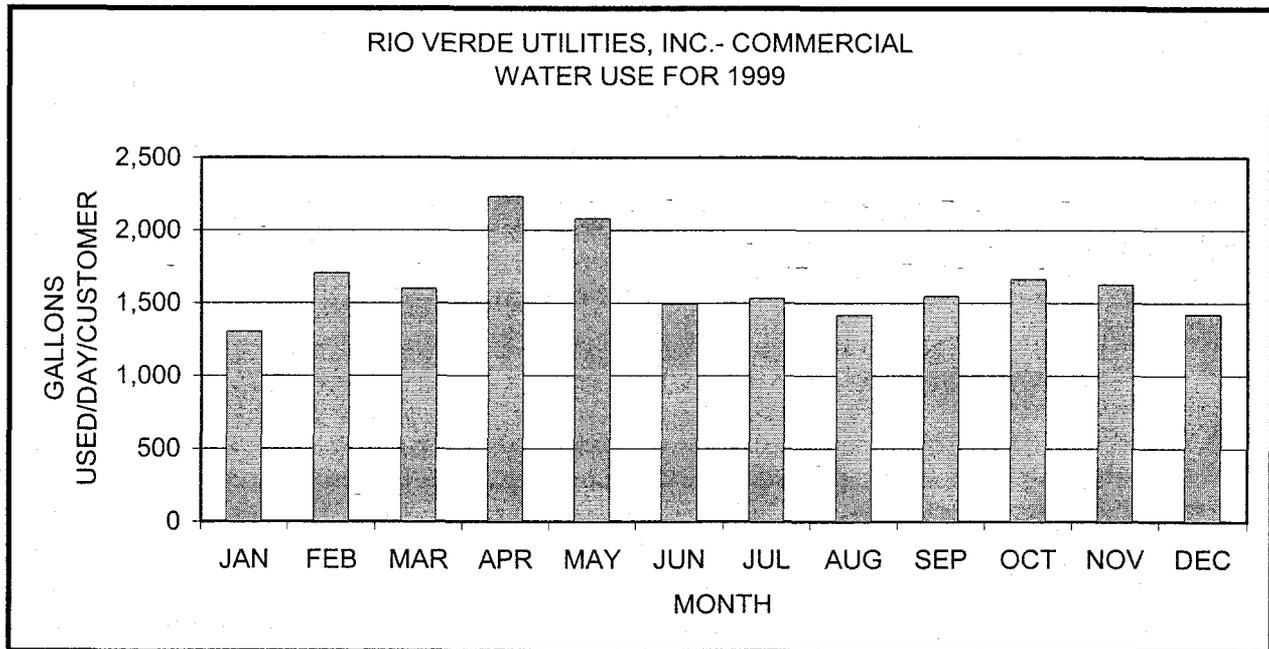
**Residential Water Use During 1999**

	<b>Gallons Sold Per Month</b>	<b>Number of Connections</b>	<b>Gallons Used Per Connection Per Day</b>	<b>Days in Month</b>
JANUARY	10,230,526	1146	288	31
FEBRUARY	12,779,242	1150	397	28
MARCH	11,971,146	1161	333	31
APRIL	11,772,584	1165	337	30
MAY	12,406,268	1178	340	31
JUNE	12,221,207	1189	343	30
JULY	13,162,450	1189	357	31
AUGUST	12,629,630	1198	340	31
SEPTEMBER	13,574,804	1189	381	30
OCTOBER	12,623,016	1198	340	31
NOVEMBER	14,778,611	1207	408	30
DECEMBER	12,874,365	1202	346	31
<b>Total</b>	<b>151,023,849</b>			
<b>Max</b>	<b>14,778,611</b>	<b>1,207</b>	<b>408</b>	
<b>Min</b>	<b>10,230,526</b>	<b>1,146</b>	<b>288</b>	
<b>Avg</b>	<b>12,585,321</b>	<b>1,181</b>	<b>351</b>	



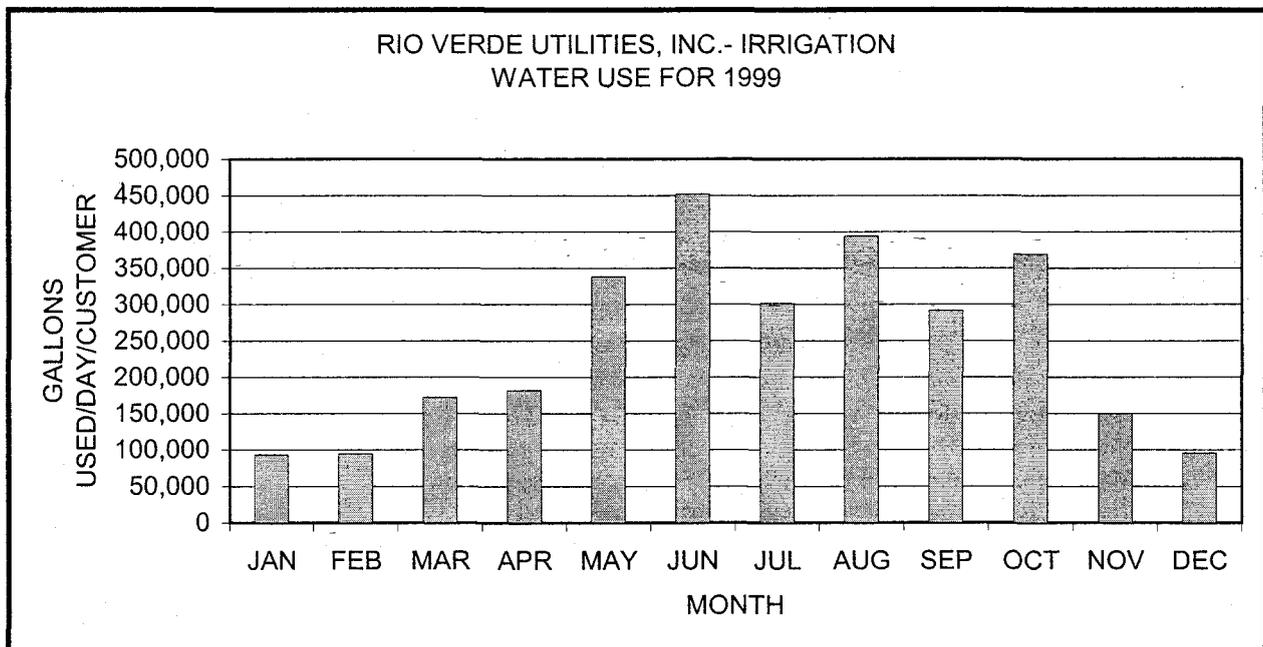
Commercial Water Use During 1999

	Gallons Sold Per Month	Number of Connections	Gallons Used Per Connection Per Day	Days in Month
JANUARY	1,212,698	30	1,304	31
FEBRUARY	1,482,210	31	1,708	28
MARCH	1,536,011	31	1,598	31
APRIL	2,076,611	31	2,233	30
MAY	2,000,611	31	2,082	31
JUNE	1,343,809	30	1,493	30
JULY	1,425,308	30	1,533	31
AUGUST	1,408,109	32	1,419	31
SEPTEMBER	1,393,308	30	1,548	30
OCTOBER	1,601,069	31	1,666	31
NOVEMBER	1,562,111	32	1,627	30
DECEMBER	1,411,011	32	1,422	31
<b>Total</b>	<b>18,452,866</b>			
<b>Max</b>	<b>2,076,611</b>	<b>32</b>	<b>2,233</b>	
<b>Min</b>	<b>1,212,698</b>	<b>30</b>	<b>1,304</b>	
<b>Avg</b>	<b>1,537,739</b>	<b>31</b>	<b>1,636</b>	



**Irrigation Water Use During 1999**

	<b>Gallons Sold Per Month</b>	<b>Number of Connections</b>	<b>Gallons Used Per Connection Per Day</b>	<b>Days in Month</b>
JANUARY	20,302,001	7	<b>93,558</b>	31
FEBRUARY	<b>18,602,501</b>	7	94,911	28
MARCH	37,408,001	7	172,387	31
APRIL	38,189,501	7	181,855	30
MAY	73,429,501	7	338,385	31
JUNE	<b>94,942,501</b>	7	<b>452,107</b>	30
JULY	65,359,001	7	301,194	31
AUGUST	85,525,001	7	394,124	31
SEPTEMBER	61,277,001	7	291,795	30
OCTOBER	80,152,835	7	369,368	31
NOVEMBER	40,383,001	9	149,567	30
DECEMBER	26,648,000	9	95,513	31
<b>Total</b>	<b>642,218,845</b>			
<b>Max</b>	<b>94,942,501</b>	<b>9</b>	<b>452,107</b>	
<b>Min</b>	<b>18,602,501</b>	<b>7</b>	<b>93,558</b>	
<b>Avg</b>	<b>53,518,237</b>	<b>7</b>	<b>244,564</b>	



**Rio Verde Utilities, Inc.**  
**Gallons Water Pumped By Category**  
**Test Year Ending December 31, 1999**

	Residential	Commercial	Irrigation	Effluent	Total
January	10,230,526	1,217,698	20,302,001	5,374,000	37,124,225
February	12,779,242	1,482,210	18,602,501	5,465,000	38,328,953
March	11,971,146	1,536,011	37,408,001	6,829,000	57,744,158
April	11,772,584	2,076,611	38,189,501	6,296,000	58,334,696
May	12,406,268	2,000,611	73,429,501	4,045,000	91,881,380
June	12,221,207	1,343,809	94,942,501	2,974,000	111,481,517
July	13,162,450	1,425,308	65,359,001	2,919,000	82,865,759
August	12,629,630	1,408,109	85,525,001	3,007,000	102,569,740
September	13,574,804	1,393,308	61,277,001	3,048,000	79,293,113
October	12,623,016	1,601,069	80,152,835	3,638,000	98,014,920
November	14,778,611	1,562,111	40,383,001	5,444,000	62,167,723
December	12,874,365	1,411,011	26,648,000	5,239,000	46,172,376
<b>Totals</b>	<b>151,023,849</b>	<b>18,457,866</b>	<b>642,218,845</b>	<b>54,278,000</b>	<b>865,978,560</b>
Hydrant Meters	11,507,900				

**F. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) AND MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT COMPLIANCE**

The Company is in compliance with ADEQ and Maricopa County regulations. Maricopa County has determined that this system is currently delivering water that does not exceed any MCL (maximum contaminant level) and meets the Safe Drinking Water Act quality requirements.

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

The Company is located in the Phoenix Active Management Area. It is in good standing with ADWR and has met all their requirements.

**H. OTHER**

Water Testing Costs

The Company reported water testing costs of \$2003 for on-site lab testing and \$7,134 for outside lab testing for the water division. Engineering considers these costs reasonable. The Company is not part of the ADEQ Monitoring and Assistance Program. (MAP)

Meter and Service Charges

The Company is proposing higher meter and service line installation charges as shown in Company application Schedule H-3. Engineering considers these charges reasonable and recommends approval.

Service Outside of the CC&N

The Company reported serving three homes and the McDowell Mountain Regional Park, which, are outside of the Company's Certificate of Convenience and Necessity (CC&N). The customers are contiguous to the Certificated area. The park is supplied through a 6 inch meter at the Park's own pump station. The water is then distributed through the park's private water system.

Central Arizona Project (CAP)

The Company has a CAP allocation of 812 acre-ft. It presently uses approximately 180 acre-ft. per year. The Company has an upstream exchange agreement with the Salt River Project (SRP). CAP water is drawn by SRP in exchange for the Company pumping SRP ground water. Through this exchange, the Company takes delivery of CAP water (on paper) although SRP is actually drawing the CAP water. The Company keeps track of the SRP groundwater pumped and the CAP deliveries SRP takes.

Plant in Service

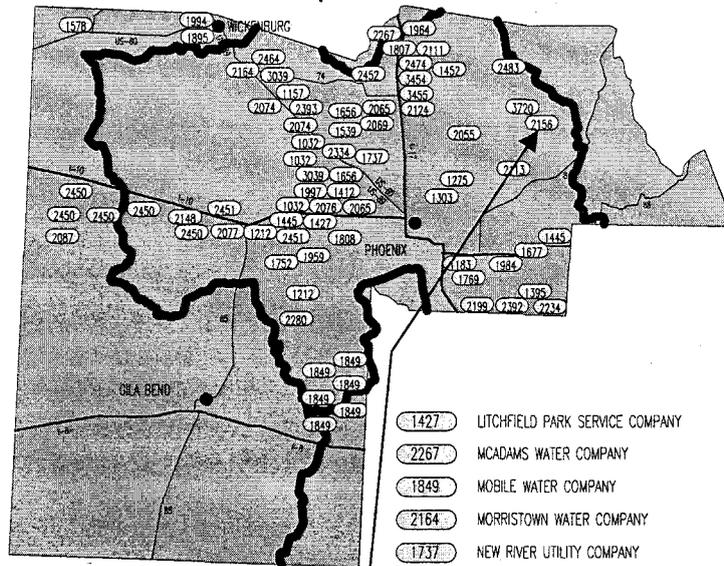
Engineering found all wells, storage tanks, booster pumps, pressure tanks and other related water plant to be used and useful. According to the Company, any distribution mains, which have been built, that are not serving customers are contributed plant and therefore netted out of rate base. The Company supplied Staff, through a data request, with a list of plant items that have been retired since the last rate increase, which should be accounted for in the final rate base total.

Hookup Fee

As a result of the settlement agreement with the Rio Verde Community Association and the Rio Verde Country Club, Inc., the Company's present hook-up fee tariff allows for the collection of \$500 for each new water service hook-up. The fees for the first sixty hook-ups each year are used as revenue. The remainder of the fees collected in any year for hook-ups are used as a contribution. Since Decision No. 58525 dated February 2, 1994, the Company reported collecting \$161,500 as revenue and \$45,000 as contributions through the December 31, 1999 test year.

Engineering recommends not recording hook-up fees as revenue. All money collected from hook-up fees should be used as contributions to pay for backbone plant such as wells, storage tanks, pressure tanks and booster pumps and not to subsidize current customers' monthly water bills. Engineering recommends that the hook-up fee for water service be raised to \$1,000 from \$500 per connection and that all hook-up fee monies be recorded as contribution to plant.

# MARICOPA COUNTY



- |        |                                    |        |  |
|--------|------------------------------------|--------|--|
| (1997) | ADAMAN MUTUAL WATER COMPANY        | (1427) | LITCHFIELD PARK SERVICE COMPANY            |
| (1578) | AGUILA WATER SERVICES, INC.        | (2267) | MCADAMS WATER COMPANY                      |
| (2077) | ALLENVILLE WATER COMPANY, INC.     | (1849) | MOBILE WATER COMPANY                       |
| (1445) | ARIZONA WATER COMPANY              | (2164) | MORRISTOWN WATER COMPANY                   |
| (2074) | BEARDSLEY WATER COMPANY, INC.      | (1737) | NEW RIVER UTILITY COMPANY                  |
| (1275) | BERNEIL WATER COMPANY              | (1303) | PARADISE VALLEY WATER COMPANY              |
| (1964) | BLACK CANYON RETREAT WATER COMPANY | (2199) | PIMA UTILITY COMPANY                       |
| (2392) | BLUE GOOSE WATER COMPANY           | (2464) | PUESTA DEL SOL WATER COMPANY               |
| (3039) | BROOKE WATER L.L.C.                | (1395) | QUEEN CREEK WATER COMPANY                  |
| (1994) | CABALLEROS WATER COMPANY, INC.     | (1808) | RIGBY WATER COMPANY                        |
| (1452) | CAVE CREEK WATER COMPANY           | (2156) | RIO VERDE UTILITIES, INC.                  |
| (2113) | CHAPARRAL CITY WATER COMPANY       | (1539) | ROSE VALLEY WATER COMPANY                  |
| (2393) | CHAPARRAL WATER COMPANY            | (2111) | SABROSA WATER COMPANY                      |
| (1032) | CITIZENS UTILITIES COMPANY         | (1183) | SENDE VISTA WATER COMPANY, INC.            |
| (3454) | CITIZENS WATER SERVICES COMPANY    | (2474) | SHANGRI-LA ASSOCIATES, INC.                |
| (3455) | CITIZENS WATER RESOURCES COMPANY   | (2280) | SOUTH RAINBOW VALLEY WATER COOPERATIVE     |
| (1752) | CLEARWATER UTILITIES COMPANY, INC. | (1656) | SUN CITY WATER COMPANY                     |
| (1895) | COUNTRY CLUB ACRES WATER COMPANY   | (2334) | SUN CITY WEST UTILITIES COMPANY            |
| (1984) | DAIRYLAND WATER CORPORATION        | (2069) | SUNRISE WATER COMPANY, INC.                |
| (2124) | DESERT HILLS WATER COMPANY, INC.   | (2076) | TIERRA BUENA WATER COMPANY                 |
| (2087) | EAGLE WATER COMPANY                | (2483) | TONTO HILLS UTILITY COMPANY                |
| (1959) | GRANDVIEW WATER COMPANY, INC.      | (1677) | TURNER RANCHES WATER & SANITATION COMPANY  |
| (2234) | H2O, INC.                          | (1212) | VALENCIA WATER COMPANY                     |
| (2055) | JAMES P. PAUL WATER COMPANY        | (1412) | VALLEY UTILITIES WATER COMPANY, INC.       |
| (1769) | KYRENE WATER COMPANY               | (2148) | VALLEY VIEW WATER COMPANY, INC.            |
| (2452) | LAKE PLEASANT WATER COMPANY        | (2451) | WATER UTILITY OF GREATER BUCKEYE, INC.     |
|        |                                    | (2450) | WATER UTILITY OF GREATER TONOPAH, INC.     |
|        |                                    | (3720) | WATER UTILITY OF NORTHERN SCOTTSDALE, INC. |
|        |                                    | (1157) | WEST END WATER COMPANY                     |
|        |                                    | (2065) | WILHOIT WATER COMPANY, INC.                |
|        |                                    | (1807) | WRANGLERS ROOST WATER COMPANY              |

Figure 1

COUNTY: *Maricopa*

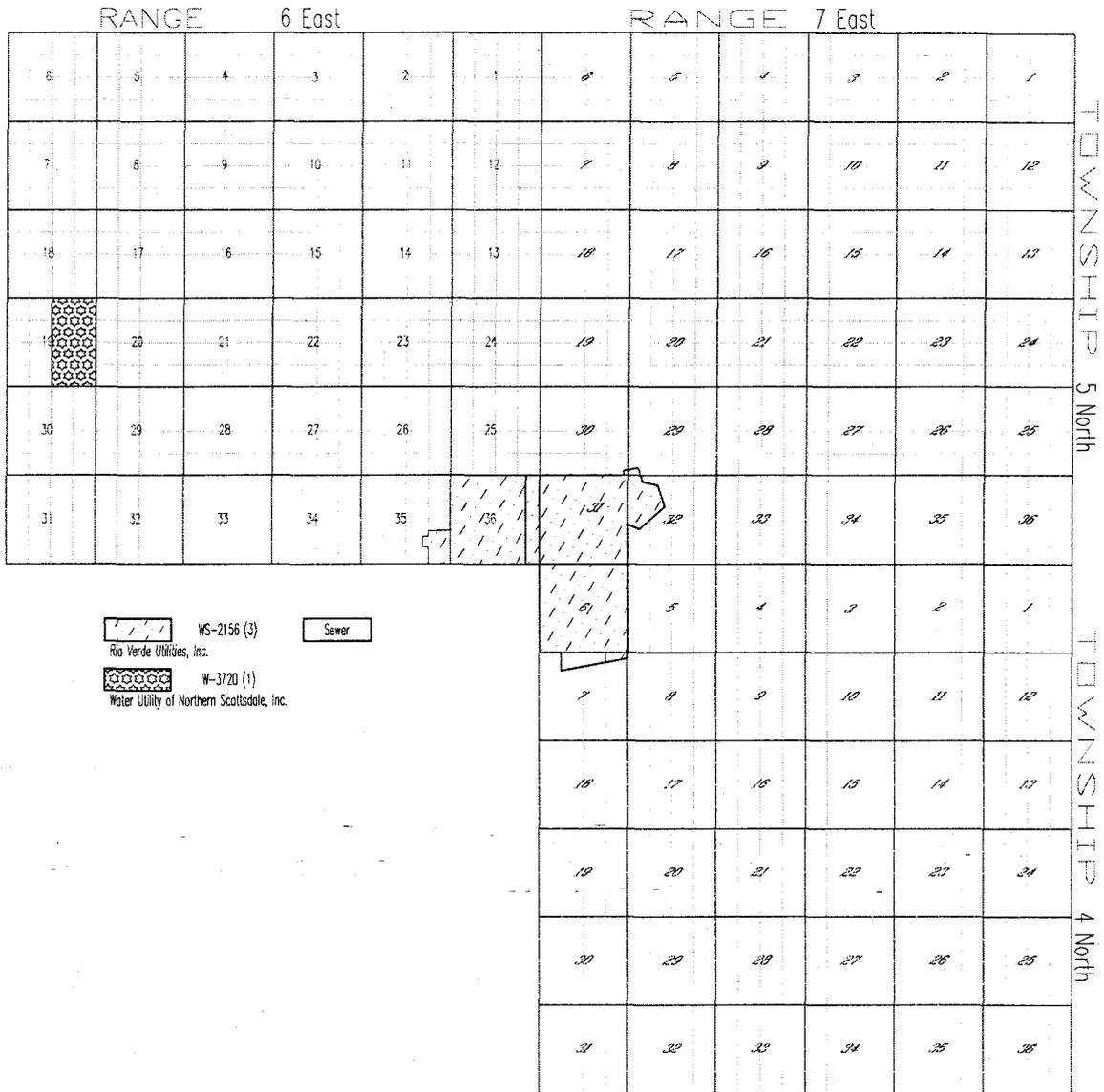


Figure 2

**ENGINEERING REPORT  
FOR  
RIO VERDE UTILITIES, INC  
WASTEWATER UTILITY  
DOCKET NO. WS-02156A-00-0321**

**A. PURPOSE OF REPORT**

This report was prepared in response to the Company's submission of an application for an increase in rates. John A. Chelus, Utilities Engineer, Ronald E. Ludders, Senior Rate Analyst and Rodney L. Moore, Auditor II, inspected the wastewater system on June 29, 2000. Mr. Donald Bush and Mr. Michael Kleminski represented the Company.

**B. LOCATION OF COMPANY**

The system is located in Maricopa County about 2 miles northeast of Fountain Hills or about 11 miles north of Shea Boulevard on Fountain Hills Boulevard, which turns into McDowell Mountain Road. The area is adjacent to McDowell Mountain Regional Park and directly north of the Fort McDowell Reservation. The system serves some of Section 36 in Township 5N Range 6E, Section 6 and part of Section 7 in Township 4N Range 7E, and Section 31 and parts of Sections 29, 30, and 32 in Township 5N Range 7E. Figure 1 and 2 detail the location of the Company in relation to other Commission regulated companies in the County and in the immediate area.

**C. DESCRIPTION OF SYSTEM**

The major components of the wastewater system consist of a collection system, 700,000 gallons per day extended aeration secondary treatment plant, filtration, chlorination, sludge digestion, sludge de-watering and an effluent reuse system which pumps to three golf course lakes. There is one lift station on the system.

Wastewater enters the plant site through two 15-inch diameter sewer lines. The wastewater goes through bar racks and is lifted by three 25 horsepower and three 10 horsepower pumps. The flow is split and passes through two micro screens. The split wastewater flow is then biologically treated by one 300,000 gallon per day and one 400,000 gallon per day extended aeration plants, which are installed in a parallel configuration. Each plant consists of two aeration chambers, one clarifier, one filter sump, dual media pressure filtration and a chlorine contact chamber.

After chlorination, the effluent is pumped by two 40 horsepower and two 15 horsepower pumps to three golf course lakes. The flow is measured as it leaves the plant by a 6 inch effluent flow meter.

The sludge is digested in aerobic digesters, dewatered in either belt vacuum filters or sludge filter presses with final disposition to a landfill.

The plant has a lab and office building at the wastewater treatment plant site, which measures approximately 20 feet by 20 feet, and is used for water and wastewater testing. The Arizona Department of Health Services has certified the lab. The treatment plant also has one 75 kilowatt and one 230 kilowatt emergency power diesel generator. Other structures include a block wall around the plant, blower housings, and filter press cover.

The collection system consists of the following:

Collection Mains		
Size	Material	Length (feet)
6"	PVC	5,592
8"	PVC	125,053
10"	PVC	1,312
12"	PVC	12,586
15"	PVC	5,200

Manholes	
Type	Quantity
Standard	447
Drop	118

Cleanouts
68

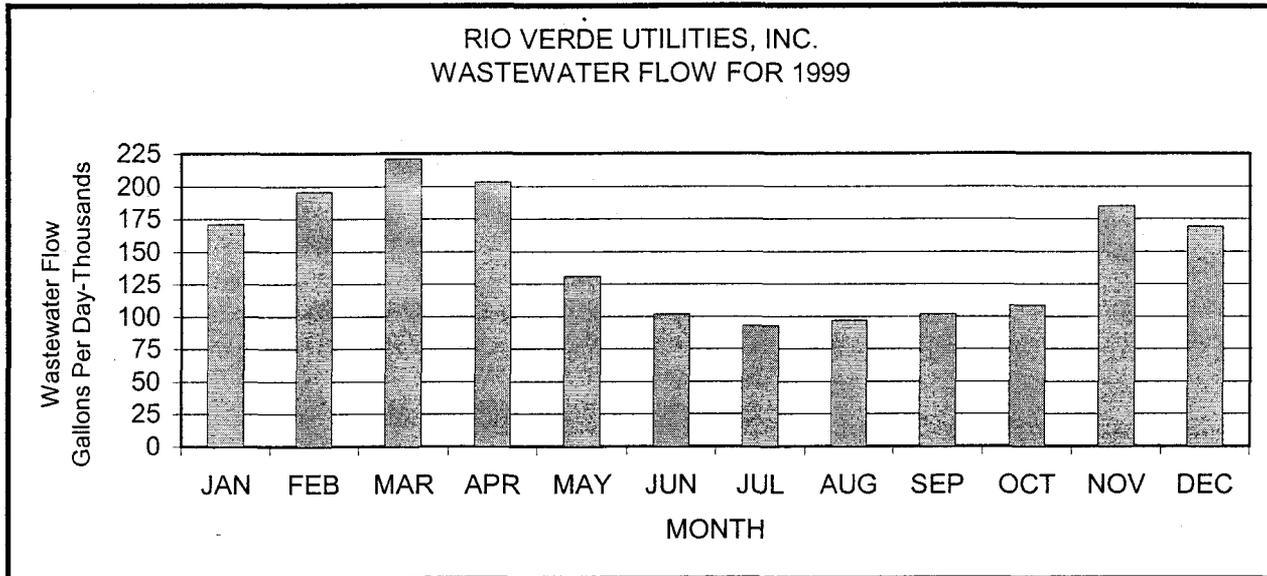
Force Mains		
Size	Material	Length
6"	PVC	14,041

**D. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) AND MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT COMPLIANCE**

The Company is in compliance with ADEQ and Maricopa County regulations. Maricopa County inspected the facilities on August 15, 2000 and found no deficiencies. The Facility I.D. for this system is No. 37-121. The aquifer protection permit is No. P-100197. The reuse permit is No. R100197.

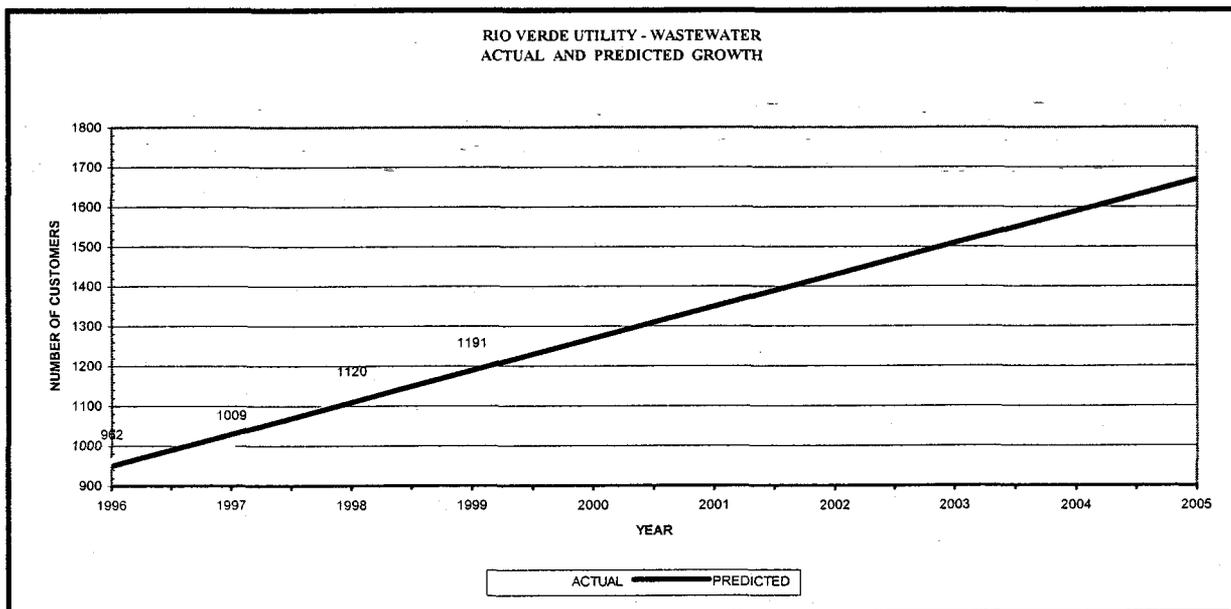
**E. WASTEWATER FLOW**

The wastewater treatment plant has a capacity of 700,000 gallons per day. The maximum flow during the 1999 test year was 354,000 gallons per day on April 19. The average daily flow for the year was 148,000 gallons per day. The peak average daily flow occurred in March, which was 221,000 gallons per day for 1,135 customers. This is an average daily flow of 195 gallons per connection. The lowest average daily flow occurred during July, which was 93,000 gallons per day for 1,158 connections. This is an average daily flow of 80 gallons per connection. There is no way to separate flow for residential and commercial customers since there are no flow meters. The following graph depicts monthly wastewater flow.



**F. GROWTH PROJECTIONS**

At the end of the 1999 test year the Company reported having 1170 residential customers, 21 commercial customers. The number of customers has grown from approximately 962 at the end of 1996 to 1,192 at the end of 1999. This is a growth rate of approximately 76 customers per year. At this growth rate, the Company could have approximately 1,626 wastewater customers by the end of 2005.



G. OTHER

Plant in Service

Engineering found all wastewater treatment facilities and other related wastewater plant to be used and useful. The Company reduced its plant in service for the wastewater facilities by \$1,290,350 from \$3,686,714 to \$2,396,364 or 35% due to excess capacity. Engineering agrees with this adjustment.

According to the Company, any collection mains, which have been built, that are not serving customers are contributed plant and therefore netted out of rate base. The Company supplied Staff, through a data request, with a list of plant items that have been retired since the last rate increase, which should be accounted for in the final rate base total. Additionally, the Company identified an effluent line, which is installed but not in use at the present time. This line serves one of the Tonto Verde Lakes on the Ranch Course. The estimated value is \$30,000. An adjustment should be made to rate base.

Water Testing Costs

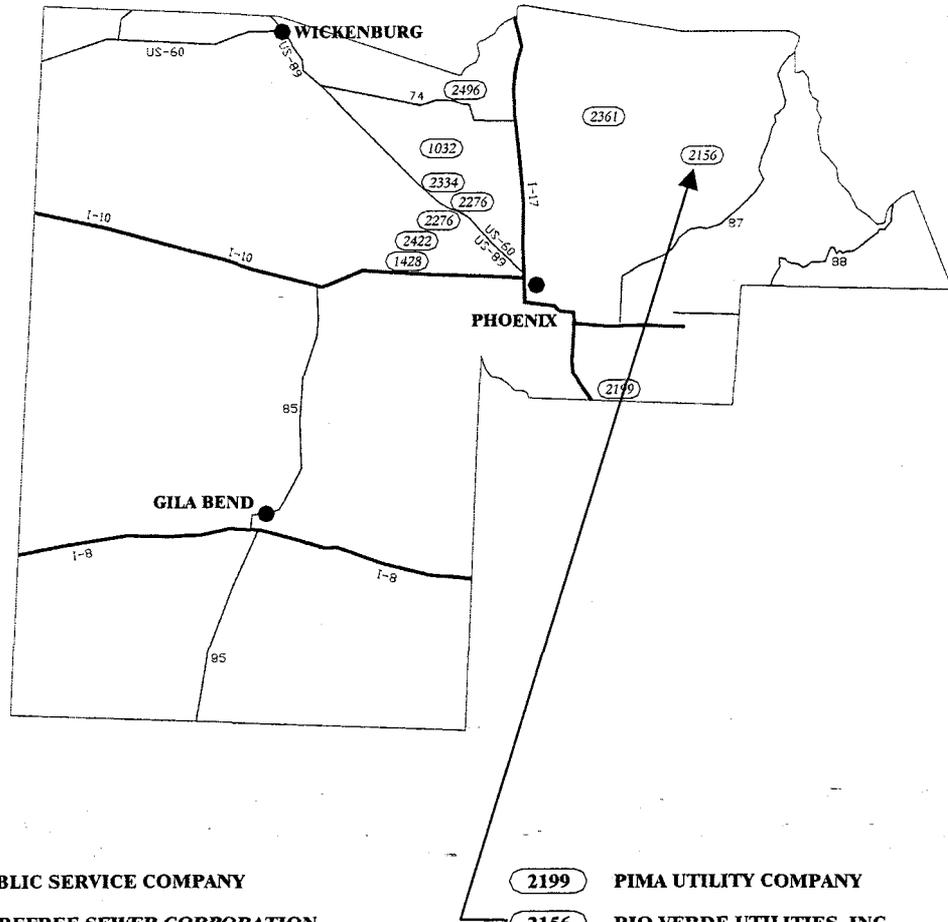
The Company reported wastewater testing costs of \$5,670 for on-site lab testing and \$828 for outside lab testing for the wastewater division during the 1999 test year. Engineering considers these costs reasonable.

Hook-up Fees

As a result of the settlement agreement with the Rio Verde Community Association and the Rio Verde Country Club, Inc., the Company's present hook-up fee tariff allows for the collection of \$1,000 for each new wastewater service hook-up. The fees for the first sixty hook-ups each year are used as revenue. The remainder of the fees collected in any year for hook-ups are used as a contribution. Since Decision No. 58525 dated February 2, 1994, the Company reported collecting \$357,000 as revenue and \$75,000 as contributions through the December 31, 1999 test year.

Engineering recommends not recording hook-up fees as revenue. All money collected from hook-up fees should be used as contributions to pay for backbone plant such as wastewater treatment plant equipment, lift stations, sludge disposal equipment and effluent pumping equipment and not to subsidize current customers' monthly wastewater bills. Engineering recommends that the hook-up fee for wastewater service be raised to \$1,500 from \$1,000 per connection and that all hook-up fee monies be recorded as contribution to plant.

# MARICOPA COUNTY (SEWER)



- 2422** AMERICAN PUBLIC SERVICE COMPANY
- 2361** BOULDERS CAREFREE SEWER CORPORATION
- 1032** CITIZENS UTILITIES COMPANY
- 2496** LAKE PLEASANT SEWER COMPANY
- 1428** LITCHFIELD PARK SERVICE COMPANY

- 2199** PIMA UTILITY COMPANY
- 2156** RIO VERDE UTILITIES, INC.
- 2276** SUN CITY SEWER COMPANY
- 2334** SUN CITY WEST UTILITIES COMPANY

Figure 1

COUNTY: *Maricopa*

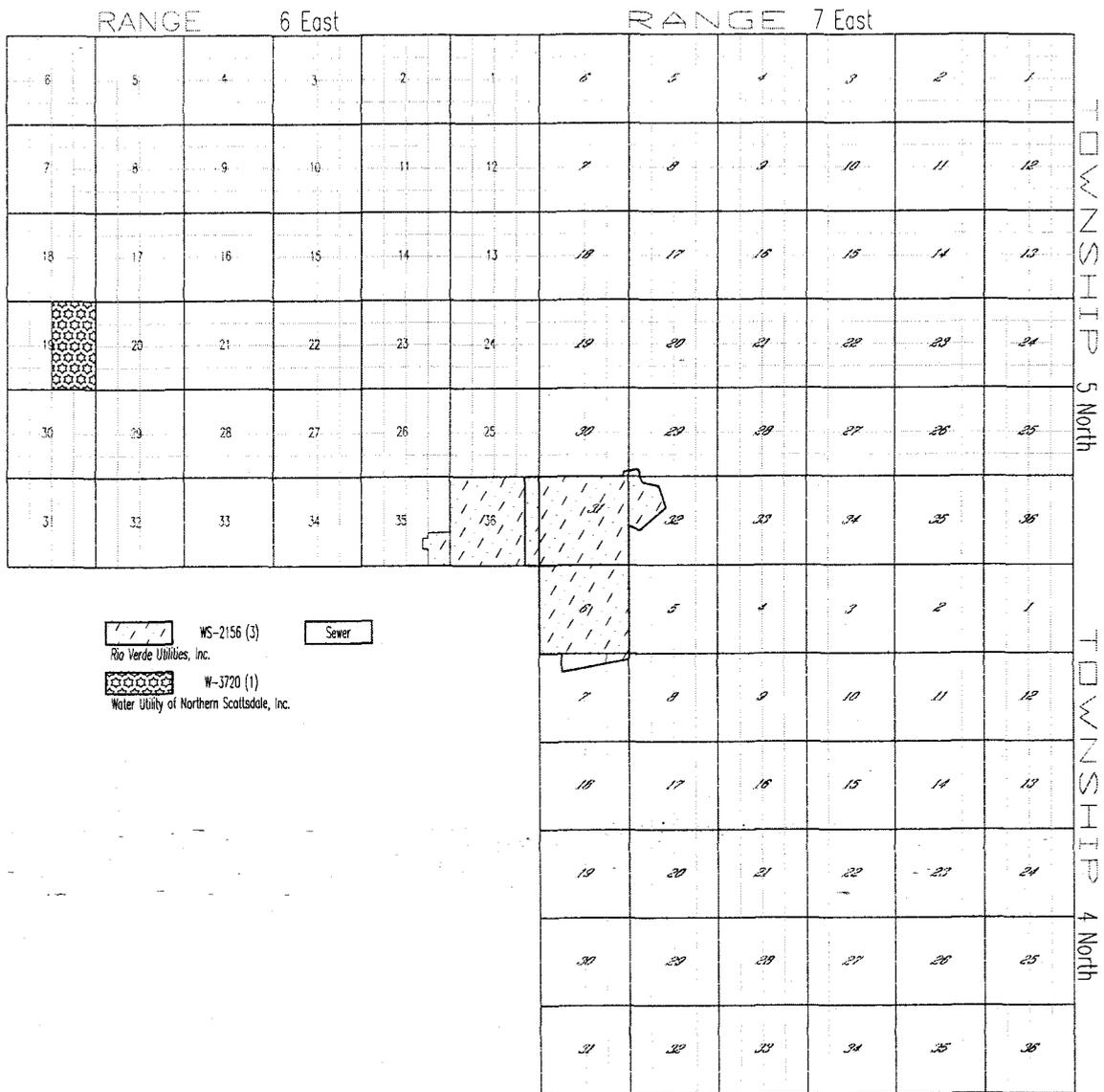


Figure 2

**RIGSBY**

BEFORE THE ARIZONA CORPORATION COMMISSION

CARL J. KUNASEK

Chairman

JIM IRVIN

Commissioner

WILLIAM A. MUNDELL

Commissioner

IN THE MATTER OF THE APPLICATION OF )  
RIO VERDE UTILITIES, INC., FOR AN )  
INCREASE IN ITS WATER AND WASTE- )  
WATER RATES FOR CUSTOMERS WITHIN )  
MARICOPA COUNTY, ARIZONA, AND 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 NOS. WS-02156A-00-0321  
WS-02156A-00-0323

DIRECT

TESTIMONY

OF

WILLIAM A. RIGSBY

SENIOR RATE ANALYST

UTILITIES DIVISION

DECEMBER 15, 2000

## TABLE OF CONTENTS

	<u>Page</u>
Executive Summary	
Introduction.....	1
Financing Application.....	3
Capital Structure .....	6
Cost of Debt .....	9
Risk .....	10
Economic Summary.....	13
The Cost of Common Equity.....	16
Comparable Earnings.....	16
Discounted Cash Flow .....	18
Capital Asset Pricing Model .....	21
Recommendations.....	24
Rebuttal of Ron L. Kozoman.....	26

**TABLE OF CONTENTS (CONTINUED)**

**SCHEDULES**

Capital Structure and Weighted Cost of Capital - Water Division..... WAR-1

Capital Structure and Weighted Cost of Capital - Wastewater Division..... WAR-2

Capital Structures of Publicly-Traded Comparable Companies and  
All Water Companies Followed by Value Line Investment Survey..... WAR-3

Customers, Revenue, Capital Structure, Net Income, and Return on Common  
Equity of Class B and C Investor-Owned Arizona Water and Sewer Companies ..... WAR-4

Historical and Projected Plant Additions..... WAR-5

Comparative Growth Statistics ..... WAR-6

Publicly Traded Water Companies  
Summary Financial and Common Stock Information ..... WAR-7

Economic Indicators ..... WAR-8

Publicly Traded Water Companies  
Return on Common Equity - Year End..... WAR-9

Earnings per Share, Dividends per Share and Sustainable Growth Rates ..... WAR-10

Results of Cost of Equity Analysis and Staff's Recommendation ..... WAR-11

Results of Cost of Equity Analysis  
Capital Asset Pricing Model ..... WAR-12

Financial Analysis..... WAR-13

**APPENDIX**

Qualifications of William A. Rigsby ..... 1

**EXECUTIVE SUMMARY**

**UTILITIES DIVISION**

**ARIZONA CORPORATION COMMISSION**

**RIO VERDE UTILITIES, INC. – WATER & WASTEWATER DIVISIONS**

**DOCKET NOS. WS-02156A-00-0321 AND WS-02156A-00-0323**

**APPLICATIONS  
FOR FINANCING APPROVAL  
AND A  
PERMANENT RATE INCREASE**

**DECEMBER 15, 2000**

Rio Verde Utilities, Inc. ("Company" or "Rio Verde") is an Arizona "C" corporation that provides water and wastewater services to a developed community located ten miles north of the community of Fountain Hills, adjacent to McDowell Mountain Range Park. The Company's water and wastewater divisions provided service to 1,193 customers as of December 31, 1999. Approximately 98 percent of these customers were residential and located in the Rio Verde and Tonto Verde subdivisions.

On May 11, 2000, Rio Verde filed applications with the Arizona Corporation Commission for approval of long-term debt ("Financing Application") and for approval of a permanent rate increase ("Rate Application") for both the Company's water and wastewater divisions.

Rio Verde is requesting the approval of a \$2,469,787 loan from CoBank to finance the majority of \$1,290,389 in new additions for Rio Verde's water division and \$1,179,787 in new additions to the Company's wastewater division. Rio Verde plans to file a copy of the loan agreement with CoBank as a late filed (post hearing) exhibit. Staff is recommending that any decision on this request be delayed until Staff has the opportunity to review the terms of the loan agreement with CoBank. Staff took this position because it did not believe it was appropriate to set rates using only Rio Verde's estimates of the possible terms of the Company-proposed loan.

Staff's recommended rate of return for Rio Verde's water division is 10.65 percent and 9.67 percent for the Company's wastewater division. The Company-proposed rates of return are 11.45 percent and 10.56 percent respectively. Staff removed all Company-proposed proforma adjustments related to the aforementioned Company-proposed long-term debt in determining its recommended capital structure and its recommended cost of long-term debt.

Staff's recommended cost of capital for both the water and wastewater divisions were determined by conducting an analysis that utilized the discounted cash flow ("DCF"), capital asset pricing model ("CAPM"), and comparable earnings methodologies.

1 INTRODUCTION

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

3 A. My name is William A. Rigsby. I am a Senior Rate Analyst employed by the Utilities  
4 Division of the Arizona Corporation Commission ("ACC" or "Commission"). My  
5 business address is 1200 West Washington, Phoenix, Arizona 85007.

6  
7 Q. Briefly describe your responsibilities as a Senior Rate Analyst.

8 A. I perform studies to determine the cost of capital for utilities that are seeking rate relief  
9 and I analyze ACC regulated utilities that have requested debt financing. I also make  
10 recommendations on the ratemaking implications of proposed mergers and acquisitions  
11 that involve utilities that are regulated by the Commission and support them with  
12 evidence that is obtained, over the course of formal proceedings, through research and  
13 data requests.

14  
15 Q. Please provide a brief summary of your employment history with the ACC and your  
16 background in the field of utilities regulation.

17 A. I was hired by the ACC in October 1994 to work as a Utilities Auditor II in the  
18 Accounting & Rates Section's Revenue Requirements Analysis Unit. During my first  
19 three years at the ACC, I produced Staff Reports on various rate case proceedings and  
20 open meeting items. Within a year of joining the ACC Utilities Division Staff ("Staff"), I  
21 was promoted to Utilities Auditor III. While working in this position, I continued to  
22 produce Staff Reports on rate case proceedings. I also filed testimony on rate base, rate  
23 of return, and operating revenue requirements and appeared as a witness in a formal rate  
24 hearing. In December 1997, I accepted a Senior Rate Analyst position with the  
25 Residential Utility Consumer Office ("RUCO"). At RUCO, I provided testimony on cost  
26 of capital, rate base, and operating revenue issues and appeared as a witness on behalf of

27 ...

28 ...

1 residential customers in rate proceedings that were heard by the Commission. In July  
2 1999, I returned to the ACC to work in my current position in the Accounting & Rates  
3 Section's Financial Analysis Unit.

4  
5 Appendix I, which is attached to this testimony, includes a complete list of the rate cases  
6 and regulatory matters that I have been involved with since 1994.

7  
8 Q. What is your educational background?

9 A. I received a Master of Business Administration degree with an Emphasis in Accounting  
10 from the University of Phoenix in 1993. My undergraduate work was completed at  
11 Arizona State University, where I earned a Bachelor of Science degree in Finance in  
12 1990. Prior to that time, I held an Associate of Applied Science degree in Banking and  
13 Finance from Mesa Community College. I have also attended various ratemaking and  
14 cost of capital workshops and seminars. In 1997 and 1999, I attended the NARUC<sup>1</sup>  
15 Annual Regulatory Studies Program at Michigan State University's Institute for Public  
16 Utilities.

17  
18 A detailed summary of my educational background is exhibited in Appendix 1.

19  
20 Q. What is the scope of your testimony?

21 A. My testimony includes Staff's recommendations on Rio Verde Utilities, Inc.'s ("Rio  
22 Verde" or "the Company") application for long-term debt financing in the amount of  
23 \$2,469,787 ("Financing Application") and the Company's application for an increase in  
24 rates ("Rate Application"). In regard to Rio Verde's Rate Application, my testimony also  
25 includes recommendations on the appropriate capital structure, the cost of debt and the  
26 cost of common equity for the Company's water and wastewater divisions.

27 ...

28  

---

<sup>1</sup> The National Association of Regulatory Utility Commissioners.

1 Q. Please summarize your recommendations.

2 A. In regard to Rio Verde's Financing Application, Staff is recommending that a decision on  
3 the Company's request for \$2,469,787 in long-term debt be delayed until Staff has had  
4 the opportunity to review the actual terms of the loan agreement between Rio Verde and  
5 CoBank.

6  
7 In regard to Rio Verde's Rate Application, Schedule WAR-1, Page 1 of 3, illustrates  
8 Staff's recommendations on a capital structure for the Company's water division of 18.99  
9 percent debt and 81.01 percent common equity at costs of 9.14 percent for debt and 11.00  
10 percent for equity. This results in a weighted cost of capital of 10.65 percent.

11  
12 Schedule WAR-2, Page 1 of 4, illustrates Staff's recommendations on a capital structure  
13 for Rio Verde's wastewater division of 58.19 percent debt and 41.81 percent common  
14 equity at costs of 8.71 percent for debt and 11.00 percent for equity; resulting in a  
15 weighted cost of capital of 9.67 percent.

16  
17 FINANCING APPLICATION

18 Q. Please describe Rio Verde's Financing Application.

19 A. Rio Verde is requesting the approval of a \$2,469,787 loan from CoBank to finance the  
20 majority of \$1,290,389 in new additions for Rio Verde's water division and \$1,179,787  
21 in new additions to the Company's wastewater division.

22  
23 The proceeds of the loan will be used to repay the Company's parent, Second Arizona  
24 Rio Verde Co. ("Second Arizona") for funds that were advanced to construct the  
25 aforementioned additions to plant. These advanced funds appear as "Payables to  
26 Associated Companies" on the water division and wastewater division balance sheets that  
27 are exhibited in Rio Verde's Financing and Rate Applications (Schedule E-1, Page 1).

28 ...

1 Q. Have these additions to Rio Verde's water and wastewater divisions been constructed?

2 A. Yes. The additions to plant have been completed and are included in Staff's proposed  
3 rate base. Rio Verde will recover the costs associated with the new additions through the  
4 depreciation expense being proposed by Staff. The portion of depreciation expense, a  
5 noncash charge, that is attributed to the new additions will provide cash flow that can be  
6 used by the Company to make principal payments on a loan that is used to finance the  
7 additions.

8  
9 Q. Is Staff recommending approval of the proposed financing?

10 A. Staff is recommending that the decision to approve the proposed loan be delayed until  
11 Staff has the opportunity to review the loan agreement between CoBank and Rio Verde.

12  
13 Q. Why has Staff not been able to review the loan agreement?

14 A. The Company stated in its Financing Application that the loan agreement between  
15 CoBank and Rio Verde would be presented as a late-filed exhibit (post hearing). The  
16 Company also informed Staff that no loan documents have been executed as of the time  
17 of this writing.

18  
19 Q. Has the Company requested long-term debt in the past under this type of arrangement?

20 A. Rio Verde has provided late filed exhibits in prior financing requests. Staff has also  
21 recommended approval of long-term debt under such circumstances. However, these  
22 prior cases were requests for approval of long-term debt only and were not part of a rate  
23 case proceeding. In the prior cases, Staff based its recommendations on the Company's  
24 ability to repay the proposed debt with rates that were already in effect. In the instant  
25 case, the rates being proposed by the Company include estimated debt service figures that  
26 may not be part of the final agreement with CoBank. Because of this situation, Staff does  
27 not believe that it is proper to recommend rates, which include the Company's debt  
28 service estimates, without having the opportunity to review the actual terms of the loan

1 agreement between CoBank and Rio Verde. For this reason, I have not included  
2 proforma adjustments for the Company-proposed long-term debt in my cost of capital  
3 analysis.

4  
5 Q. Would Rio Verde be able to service the proposed debt under the rates that are being  
6 recommended by Staff?

7 A. Staff believes that its recommended rates will generate revenues that will provide Rio  
8 Verde with the cash flow needed to service the existing long-term debt. As just noted,  
9 the rates being proposed by Staff would not be based on any proforma adjustments for  
10 the Company-proposed long-term debt. Also, as explained earlier, Staff's recommended  
11 level of depreciation expense, which does take the new additions into consideration, will  
12 provide cash flow that will be needed to make principal payments on such a loan (i.e. the  
13 Company-proposed long-term debt). The below-the-line interest expense on the  
14 additional Company-proposed long-term debt would have to be covered by Staff's  
15 proposed level of operating income.

16  
17 Schedule WAR-13 presents the results of a Times Interest Earned Ratio ("TIER") and  
18 Debt Service Coverage ("DSC") ratio analysis that examines the effect that the  
19 Company-proposed long-term debt will have on Rio Verde under the revenue level  
20 recommended by Staff. These ratios measure the number of times that earnings will  
21 cover interest payments ("TIER") and the number of times cash flow will cover principal  
22 and interest payments ("DSC"). Generally speaking, a TIER of 1.50 and a DSC ratio of  
23 1.25 are preferred.

24  
25 Under the existing debt situation, Staff's recommended revenue level will provide Rio  
26 Verde's water division with a TIER of 8.55 and a DSC of 8.59. The Company's  
27 wastewater division would have a TIER of 1.62 and a DSC of 1.54. When the Company-  
28 proposed long-term debt is taken into consideration, Rio Verde's water division ratios fall

1 to a TIER of 3.21 and a DSC of 3.34. Under this same scenario, the Company's  
2 wastewater division drops to a TIER of 1.35 and a DSC of 1.27. The existing loan  
3 agreement with CoBank requires that Rio Verde maintain an annual DSC of 1.25.

4  
5 If the Commission decides to increase the revenue requirement to a level that allows the  
6 Company the opportunity to achieve a minimum TIER of 1.5, then Staff recommends  
7 that the rate of return on Staff's recommended rate base be adjusted. However, Staff  
8 strongly supports its recommended capital structure, cost of debt, and cost of equity.

9  
10 CAPITAL STRUCTURE

11 Q. What capital structure have you used to determine the cost of capital for Rio Verde?

12 A. I have chosen to use Rio Verde's December 31, 1999 capital structure as exhibited in the  
13 Company's Application, with one adjustment discussed below. A capital structure of  
14 18.99 percent long-term debt and 81.01 percent common equity for Rio Verde's water  
15 division is illustrated in Schedule WAR-1, Page 1 of 3. For the Company's wastewater  
16 division, a capital structure of 58.19 percent long-term debt and 41.81 percent common  
17 equity is illustrated in Schedule WAR-2, Page 1 of 4.

18  
19 Q. What capital structure is Rio Verde proposing in this case?

20 A. Rio Verde is also proposing to use its water division and wastewater division capital  
21 structures from December 31, 1999 with proforma adjustments for the Company-  
22 proposed long-term debt of \$2,469,787 previously discussed. This produces a capital  
23 structure consisting of 43.5 percent debt and 56.5 percent common equity for the water  
24 division and 69.53 percent debt and 30.47 percent common equity for the wastewater  
25 division.

26 ...

27 ...

28 ...

1 Q. What adjustments did you make to the debt and equity components of the capital  
2 structure proposed by Rio Verde?

3 A. The only adjustment that I made to both the Company-proposed water and wastewater  
4 capital structures was to remove the long-term debt that was proposed in Rio Verde's  
5 financing application.

6  
7 Q. How does Rio Verde's capital structure compare with that of other investor-owned water  
8 and sewer companies?

9 A. Rio Verde's water division capital structure reflects lower financial risk compared to the  
10 capital structures of both publicly-traded water and sewer companies and comparable  
11 Arizona class B investor-owned water and sewer companies. On the other hand, the  
12 capital structure of the Company's wastewater division reflects higher financial risk due  
13 to the higher percentage of long-term debt. Schedule WAR-3, Pages 1 and 2, illustrates  
14 the capital structures of nine publicly-traded companies selected as comparable to Rio  
15 Verde. Schedule WAR-4, Pages 1 and 2, shows the capital structures of eight Arizona  
16 investor-owned class B water and sewer utilities. Both sets of companies will also be  
17 used as proxies for the Company in my cost of equity analysis.

18  
19 Q. How were the publicly-traded companies selected?

20 A. I selected the five publicly-traded water utilities followed by Value Line Investment  
21 Survey (Value Line) as well as an additional four not tracked by them. I based my  
22 discounted cash flow ("DCF") and capital asset pricing model ("CAPM") on data from  
23 these companies. I also used Arizona class B investor-owned utilities comparable in size  
24 and risk to Rio Verde.

25 ...  
26 ...  
27 ...  
28 ...

1 Publicly-traded water companies were rejected if they suffered net losses during the  
2 previous ten years, had significant non-utility business, or had significantly cut their  
3 dividend during the previous ten years, as they would potentially introduce unacceptable  
4 levels of bias into my analysis.

5  
6 The comparable Arizona water and sewer utilities were selected as those which were  
7 classified as a class B utility in 1999 (revenues between \$1 million and \$5 million), did  
8 not experience a loss in either 1998 or 1999, and had between 1,500 and 10,000  
9 customers.

10  
11 Q. What was the capital structure of the comparable companies in 1998 and 1999?

12 A. As shown on Schedule WAR-3, Page 1, the publicly-traded companies' average capital  
13 structure at the end of 1998 was 49.8 percent debt, 1.3 percent preferred stock and 48.9  
14 percent common equity. Schedule WAR-3, Page 2, shows that in 1999, the debt and  
15 equity components increased and decreased slightly to 50.5 percent and 48.4 percent,  
16 respectively. The preferred stock component also fell slightly to 1.1 percent. The  
17 Schedule also shows that the average of the five water utilities followed by Value Line  
18 for both 1998 and 1999 showed higher levels of debt than the larger group of nine  
19 comparable companies, of which they are a part.

20  
21 Schedule WAR-4, Page 1, shows the average debt and equity levels of comparable  
22 Arizona class B investor-owned water and sewer utilities in 1998 to be 26.3 percent and  
23 73.7 percent, respectively. Schedule WAR-4, Page 2, shows that in 1999, the debt level  
24 decreased to 24.4 percent and the equity level increased to 75.6 percent.

25  
26 The schedules indicate that Rio Verde's wastewater division faces higher financial risk  
27 relative to both the Arizona comparables and publicly-traded water and wastewater  
28 utilities.

1 COST OF DEBT

2 Q. What are Rio Verde's water and wastewater divisions requesting for their embedded  
3 costs of debt?

4 A. Rio Verde's water division is requesting an embedded cost of debt of 9.77 percent while  
5 the Company's wastewater division is requesting an embedded cost of debt of 9.60  
6 percent. This represents the weighted average cost of debt on existing stockholder (water  
7 division) and CoBank (wastewater division) loans that were approved in Decision  
8 No. 59392, dated November 28, 1995, and the long-term debt (for both the water division  
9 and wastewater division) proposed in the Company's Financing Application.

10  
11 Q. Is this the cost of debt that you are adopting for this proceeding?

12 A. No. I am adopting a cost of debt of 9.14 percent for Rio Verde's water division and 8.71  
13 percent for the Company's wastewater division.

14  
15 Q. Why does your cost of debt vary between the water and wastewater divisions?

16 A. The agreement on the existing CoBank loan used to finance wastewater assets requires  
17 that Rio Verde maintain reserve funds that are held in an interest bearing account that  
18 generates offsetting interest income. The agreement also required the payment of certain  
19 finance charges that have been amortized. These conditions do not apply to the existing  
20 stockholder loan, which was used to finance water division assets. The stockholder loan  
21 does, however, have the same interest rate as the CoBank loan.

22  
23 Q. How did you arrive at your recommended costs of debt for Rio Verde's water and  
24 wastewater divisions?

25 A. Schedule WAR-2, Page 3 of 4, illustrates the method that I used to arrive at the cost of  
26 debt for the Company's wastewater division. The interest rate on the existing CoBank  
27 loan is comprised of a fixed rate of 9.80 percent on some draws and a variable rate on  
28 other draws that ranged from 7.75 percent to 8.50 percent during the 1999 Test Year.

1 This effective rate of 9.14 percent is the cost of long-term debt that I am recommending  
2 for the water division. In the case of the wastewater division, the cost of debt is lower  
3 because I reduced test year interest expense by the amount of interest income that the  
4 Company earned on the aforementioned required reserve fund during the 1999 Test Year.  
5 I also amortized deferred financing costs and finance charges (which Staff removed from  
6 rate base in order to avoid any double recovery in rates) over the remaining 15-year life  
7 of the existing CoBank loan. The amortized charges were added to the adjusted interest  
8 expense figure to arrive at a cost of debt of 8.71 percent.

9  
10 RISK

11 Q. Why is it important to determine the level of risk an investment offers when determining  
12 the cost of equity capital?

13 A. Investors require a higher rate of return from an investment that bears a high level of risk  
14 and a lower rate of return from an investment that bears a lower level of risk. A  
15 company's cost of equity is the return expected and required by investors, which  
16 motivates them to invest in that company. It is based upon prospective investors'  
17 evaluation of the risk associated with the investment. Therefore, risk is an important  
18 factor to examine when determining the cost of equity capital.

19  
20 Q. What factors contribute to investors' risk perception of an investment in water utilities?

21 A. Factors such as capital expenditures, growth prospects, size, and ability to enter the  
22 capital markets contribute to the perception of risk.

23  
24 Q. Is Rio Verde planning any large capital expenditures?

25 A. Based on Staff's conversations with the Company, Second Arizona does have plans to  
26 develop another section of the Rio Verde community in the future (Tonto Verde);  
27 however, none of that planned development has been included in Rio Verde's Rate  
28 Application. As noted earlier, the Company has already made a significant capital

1 investment in plant when the \$2,470,176 included in Rio Verde's Financing Application  
2 is taken into consideration. Schedule WAR-5, Pages 1 and 2, illustrates the Company's  
3 historical and projected levels of capital expenditures. Based on figures contained in  
4 RioVerde's annual reports to the ACC's Utilities Division, it can be seen that the  
5 Company added nearly \$4.9 million in additional water division assets from 1993  
6 through the 1999 Test Year. This resulted in an average annual increase of 23.1 percent.  
7 During this same period, the Company's wastewater division recorded net plant additions  
8 of \$5.0 million for an average annual increase of approximately 23.8 percent. The  
9 projections illustrated in Schedule WAR-5, Pages 1 and 2, represent trends that are based  
10 on the historical additions just noted.

11  
12 Q. Has Rio Verde's customer base experienced much growth?

13 A. Yes, it has. Rio Verde's water division customer base has grown (from 720 in 1990 to  
14 1,247 in 1999), at a pace exceeding Maricopa County and Arizona, but slightly trailing  
15 the comparable Arizona utilities since 1990. Schedule WAR-6 shows that the Company's  
16 water and wastewater divisions' eight-year growth rate (1990-1998) was 7.1 percent and  
17 7.0 percent, respectively, compared to a 3.6 percent and 3.3 percent growth rate for  
18 Maricopa County and Arizona, respectively (population figures for Rio Verde were  
19 unavailable). The comparable Arizona utilities' eight-year customer growth rates ranged  
20 from 1.4 percent to 31.1 percent, with a truncated average of 8.1 percent. Rio Verde's  
21 one-year growth rate (1998-1999) was 6.2 percent for the water division and 6.3 percent  
22 for the wastewater division.

23  
24 Q. In your opinion, is Rio Verde's growth in customer base sustainable?

25 A. Presently, no restrictions exist on the amount of growth in Rio Verde's service area. Staff  
26 Engineering has estimated a growth rate of approximately 84 customers per year (direct  
27 testimony of Staff witness John Chelus). At this rate of growth, Rio Verde's water  
28 division could have approximately 1,750 customers by the end of 2005. Staff believes

1 that, at this time, the only impediments to growth in the Company's service area would  
2 be an economic downturn (resulting in a possible slowdown in new home sales) or  
3 municipal or other restrictions on growth.

4  
5 Q. How does a high rate of customer growth translate into increased business risk?

6 A. Rapidly growing companies typically have high cash flow requirements for incremental  
7 plant investment and often are unable or unwilling to pay dividends during the period of  
8 investment. Rapidly growing companies often find it more difficult to obtain debt  
9 financing due to the increased strain it places on their cash flow. The use of an historical  
10 test year means that the shareholders of these companies bear most of the risk of placing  
11 plant in service, in anticipation of additional, future customers. In Rio Verde's case, it  
12 appears that the Company's parent has the needed capital to construct additional plant  
13 through equity financing, but has elected to assume additional debt instead. While  
14 increasing levels of debt tend to increase the amount of financial risk associated with a  
15 utility, a more balanced capital structure, such as the one Staff is recommending for the  
16 Company's wastewater division results in lower rates to customers. This is because the  
17 cost of debt financing is generally lower than the cost of equity financing.

18  
19 Q. How would you describe the size risk faced by Rio Verde relative to the comparable  
20 companies used in your analysis?

21 A. Rio Verde is very small when compared to the nine publicly-traded water utilities.  
22 Schedule WAR-7 depicts, among other things, the revenues and total capital of the nine  
23 publicly-traded comparable companies for both 1998 and 1999. Even the smallest  
24 company, York Water Co., had approximately 7.17 times the capital base and 10.76 times  
25 the revenues of Rio Verde's water division in 1999.

26  
27 Compared to the eight Arizona companies shown in Schedule WAR-4, Page 2 of 2, Rio  
28 Verde is smaller in terms of customer base, capital base, and revenues.

1 Q. Is Rio Verde able to enter financial markets?

2 A. No. This is largely due to the small size and ultimate growth potential of the Company. I  
3 would characterize Rio Verde's ability to enter public capital markets as poor for both  
4 debt and equity.

5  
6 It should be noted that Rio Verde behaves very much like the developer-owned company  
7 that it is. This essentially means that the Company is able to obtain equity capital from  
8 its owner(s), in this case Second Arizona, when necessary. This factor somewhat offsets  
9 Rio Verde's relative weakness in obtaining equity capital in the public markets.

10  
11 Q. How would you characterize Rio Verde's risk exposure?

12 A. Based upon an examination of the aforementioned risk factors, I would characterize Rio  
13 Verde as having above average business risk relative to the publicly-traded comparables,  
14 but equivalent business risk relative to the Arizona comparables. As previously  
15 mentioned in this testimony, Rio Verde has higher financial risk compared to both the  
16 comparable, publicly-traded water utilities I selected, the industry as followed by Value  
17 Line, and the comparable Arizona water and sewer utilities.

18  
19 ECONOMIC SUMMARY

20 Q. Does the economic environment affect the cost of capital of Rio Verde?

21 A. Yes. The cost of capital for any company is influenced by the economic conditions in  
22 which it operates and seeks to obtain capital. The overall health of the economy affects  
23 both the availability and cost of capital. Since the cost of equity capital is forward-  
24 looking, the outlook for the national and Arizona economies should be reviewed. The  
25 results of this review should then be considered when recommending a cost of equity  
26 capital for Rio Verde. Schedule WAR-8 shows the economic indicators reviewed for this  
27 testimony.

28 ...

1 Q. What economic indicators and forecasts have you examined in your determination of the  
2 cost of capital for Rio Verde?

3 A. I reviewed inflation as measured by the Consumer Price Index ("CPI"), Gross Domestic  
4 Product ("GDP") and various interest rates. I also reviewed the Blue Chip Financial  
5 Forecasts and Arizona's Economy publications for an indication of the conditions  
6 economists are projecting for the national and local economies.

7  
8 Q. How would you characterize the current level of inflation?

9 A. I would characterize inflation, as measured by the CPI, as low at present. From 1990 to  
10 1995, inflation declined steadily from 6.1 percent to 2.5 percent. In 1996, however, it  
11 was at a 3.3 percent level. It is currently at 2.3 percent which is slightly below the 1995  
12 level.

13  
14 Q. What is the current rate of growth in the U. S. economy?

15 A. The current rate of growth in the U. S. economy, as measured by GDP, is 5.3 percent.  
16 This exceeds the 1997 rate of 3.9 percent, which was the highest annual rate of growth in  
17 the past decade.

18  
19 Q. What are the current interest rate levels?

20 A. Current interest rate levels have been climbing since they hit record lows during 1993,  
21 but are lower than the levels that existed in 1990. Three-month treasury bills are  
22 currently at 6.2 percent. Long-term, 30-year Treasury bond rates are at one of their  
23 lowest point in decades at 5.8 percent. The prime rate is currently at 9.5 percent. A-rated  
24 utility bonds currently yield 8.2 percent, 1.8 percent lower than the 1990 rate of 10.0  
25 percent.

26 ...

27 ...

28 ...

1 Q. What is the outlook for the national and state economies?

2 A. Nationally, decreased growth in GDP, interest rate stability and continued low levels of  
3 inflation. The following quote from the November 1, 2000 Blue Chip Financial  
4 Forecasts illustrates this:

5  
6 The consensus predicts an unchanged Federal Open Market  
7 Committee ("FOMC") policy through the second quarter of  
8 next year and easing thereafter. About a third of the panel  
9 believe the FOMC will cut rates by the end of the second  
10 quarter of 2001. Just a quarter of the panel now believe the  
11 next move by the FOMC will be a hike in rates. The  
12 consensus forecasts fourth quarter real GDP growth of 3.6  
13 percent. GDP growth in the first half of next year is put at  
14 3.3 percent. Overall, CPI inflation will subside to 2.6  
15 percent by the third quarter of next year, according to the  
16 consensus (Page 1).

17  
18 In Arizona, continued population growth, economic expansion as well as relatively strong  
19 employment growth and relatively high levels of home sales are predicted. That is the  
20 outlook according to Marshall J. Vest, in an article titled "What Slowdown," which  
21 appeared in the Fall 2000 edition of Arizona's Economy, a publication of the University  
22 of Arizona's Eller College of Business. The article states:

23  
24 Arizona's economy should continue to pace the nation  
25 through the rest of this year. We expect gains of 8.3  
26 percent for personal income, 8 - 8.5 percent for retail sales,  
27 3.5 percent job growth, and a 15-20 percent decline in  
28 residential permits. That would put permits at the same  
level as 1994's 50,000 units, far higher than the 23,000 low  
points of 1989-1991 at the depths of the last recession."

Over the next five years, Arizona's population should  
continue to swell by 630,000 (to more than 5.6 million) and  
some 340,000 jobs will be created. This reflects annual  
growth rates of 2.4 percent and 2.8 percent, respectively.  
Both reflect below average rates of growth as the economy  
comes in for a soft landing.

27 ...

28 ...

1 THE COST OF COMMON EQUITY

2 Q. What standards do you apply in your determination of the allowed return on common  
3 equity for Rio Verde?

4 A. The return on common equity should fairly compensate Rio Verde's equity investors for  
5 the risk incurred in investing in the Company. The fair return on equity can be  
6 determined through the use of two market-based models, the discounted cash flow  
7 ("DCF") model, and the capital asset pricing model ("CAPM"). In the case of Rio Verde,  
8 which does not have publicly-traded stock and therefore lacks the information necessary  
9 for the application of the market-based models, a group of similar, publicly-traded  
10 utilities must be used as proxies.

11  
12 Q. What companies did you select as proxies or comparables for Rio Verde?

13 A. I selected the nine publicly-traded water and sewer companies and the eight Arizona  
14 water and sewer utilities previously discussed in the capital structure section of this  
15 testimony.

16  
17 COMPARABLE EARNINGS

18 Q. What are the underlying assumptions for the comparable earnings standard?

19 A. There are two underlying assumptions. First, as the cost of equity is based upon  
20 investors' expectations, investors may use recent historical returns as a basis for expected  
21 returns. The second assumption is that an investor in a utility should be allowed to earn a  
22 return comparable to that earned by an investor in other firms of comparable risk.  
23 Therefore, earnings of similar water and sewer utilities were examined to determine  
24 comparable returns for Rio Verde.

25  
26 Q. What companies have you chosen as comparable in risk to Rio Verde?

27 A. I have chosen the nine publicly-traded water and sewer utilities and the eight Arizona  
28 water and sewer utilities mentioned above.

1 Q. What return on equity ("ROE") did the Arizona comparable water and sewer companies  
2 earn in 1998 and 1999?

3 A. I used a truncated average that eliminates the bias introduced by extreme observations by  
4 removing the highest and lowest outlying results. Schedule WAR-4, Pages 1 and 2,  
5 shows that the 1998 and 1999 ROE for the Arizona comparable water and sewer  
6 companies was 11.5 percent.

7  
8 Q. What ROE did the comparable publicly-traded companies earn in 1998 and 1999?

9 A. Ten years of ROE data for the nine publicly-traded water and sewer companies appear in  
10 Schedule WAR-9. The truncated average ROE has fluctuated from a high of 11.8 percent  
11 in 1991 to a low of 10.4 percent in 1994. In 1998 and 1999, the average ROE was 11.1  
12 percent and 10.7 percent, respectively.

13  
14 Q. Did investors consider 1999 ROE for the publicly-traded companies sufficient?

15 A. Yes. Column E of Schedule WAR-7 depicts the market-to-book ratio of the comparable  
16 companies. It indicates that, on average, investors are willing to pay 2.30 times the book  
17 value per share for these water company stocks. A market-to-book ratio greater than 1.00  
18 is generally considered to be adequate to attract new equity capital. In order for a  
19 company to have the ability to attract new equity capital without diluting the value of the  
20 existing shares, it must have a market-to-book ratio greater than 1.00. This will also  
21 serve to ensure the marketability of a new equity issue. All of the thirteen comparables  
22 used in my analysis have a market-to-book greater than 1.00. Therefore, the 10.7 percent  
23 ROE earned by the comparables in 1999 was more than adequate to compensate investors  
24 for the risk of investing in the water utility industry.

25 ...

26 ...

27 ...

28 ...

1 DISCOUNTED CASH FLOW

2 Q. Please provide a brief summary of the theory upon which the Discounted Cash Flow  
3 ("DCF") method of estimating the cost of equity is based?

4 A. The DCF method of estimating the cost of equity is based upon the theory that the market  
5 price of an asset (common stock) is equal to the present value of all expected future cash  
6 flows (dividends). Through a mathematical restatement, the discount rate, or cost of  
7 capital, can be derived from the cash flows, asset price, and a growth rate. The formula is  
8 generally applied to a sample of companies that exhibit similar risk to the company in  
9 question and the resulting estimates for the discount rates are then averaged. This  
10 process tends to balance out the inevitable errors that occur when estimating the cost of  
11 capital using only a single company .

12  
13 Q. What is the DCF formula used in your analysis?

14 A. The formula used in my analysis is:

$$k = (D_1 \div P_0) + g$$

16 Where:

17 k = the cost of equity capital

18  $D_1$  = current annualized dividend ( $D_0$ ) multiplied by  $(1 + g)$

19  $P_0$  = current price of a share of stock

g = expected growth rate of future dividends

20 Q. How did you determine the dividend yield component ( $D_1 \div P_0$ ) of the DCF formula?

21 A. The yield component of the DCF formula was determined in two ways. The first was  
22 determined by multiplying the most recent annualized dividend by one plus the growth  
23 factor (discussed below), then dividing that product by the average of the twelve month  
24 high and low stock price of the comparable company. The second yield was determined  
25 in the same manner but was divided by the most current spot stock price reported as close  
26 as possible and practical to the filing of this testimony (the spot stock price of  
27 October 24, 2000).

28 ...

1 The spot stock price was employed under the semi-strong form of the Efficient Market  
2 Hypothesis, which states that current prices reflect all historical prices and all other  
3 published information. Therefore, the current stock price should include investors'  
4 expectations of future returns and would be a better indicator of these expectations than  
5 any other price.

6  
7 Q. How was the growth (g) component of the DCF formula determined?

8 A. The DCF model is based upon expected dividend growth. In order to determine expected  
9 dividend growth, historical dividend growth is examined under the assumption that recent  
10 historical trends reflect investors' future expectations of dividend growth. The dividends  
11 per share of the nine comparable companies from 1990 through 1999 were subjected to a  
12 log-linear regression analysis in order to determine the historical annual growth rate of  
13 dividends for the most recent five-year (1994 to 1999) and ten-year (1990 to 1999)  
14 periods. The results of the regression analyses are shown in Schedule WAR-10. An  
15 examination of the results indicates average five- and ten-year growth rates of 2.68  
16 percent and 2.78 percent, respectively.

17  
18 Q. Did you use any other method to determine the growth component other than historical  
19 dividend growth?

20 A. Yes, I did. Because dividend growth does not occur independently, it must be examined  
21 in a larger context. Dividend growth can only be maintained through growth in earnings.  
22 It would be virtually impossible for dividend growth to exceed earnings growth over the  
23 long run as it would ultimately lead to payout ratios in excess of 100 percent, which  
24 simply are not sustainable. The company would effectively have to issue new debt or  
25 equity in order to support its dividend payments. This situation would likely result in  
26 eventual financial distress. Conversely, if earnings growth consistently exceeds dividend  
27 growth, it follows that dividends will be raised.

28 ...

1           Therefore, growth in earnings per share should also be examined in the estimation of g.  
2           Schedule WAR-10 also shows the average rate of growth in earnings per share. The five-  
3           and ten-year earnings per share growth rates were 3.26 percent and 3.49 percent,  
4           respectively.

5  
6           Q.     What dividend growth rate did Value Line project for the comparable companies?

7           A.     Schedule WAR-10 shows the average of the projected dividend growth rates for the five  
8           comparable companies followed by Value Line to be 3.10 percent over the next five  
9           years. This rate is higher than both the five-year and ten-year historical rates.

10  
11          Q.     What earnings growth rate did Value Line project for the comparable companies?

12          A.     Schedule WAR-10 shows the average of the projected earnings growth rates for the five  
13          comparable companies followed by Value Line to be 6.90 percent over the next five  
14          years. This rate is more than double the five-year and ten-year historical rates.

15  
16          Q.     Aside from earnings and dividend per share growth, what other growth rate did you  
17          consider for g?

18          A.     Another method of determining g for the DCF model is the sustainable growth rate. The  
19          sustainable growth rate is simply the product of the percentage of earnings retained by the  
20          company and the expected return on equity. This concept is based upon the theory that  
21          dividend growth can only be achieved if a company retains and reinvests a portion of its  
22          earnings in itself to earn a return.

23          ...

24          ...

25          ...

26          ...

27          ...

28          ...

1 Q. What is the formula for the sustainable growth rate?

2 A. The sustainable growth rate formula is:

3 
$$g = br$$

4 Where:

5  $g$  = sustainable growth

6  $b$  = expected return on equity

7  $r$  = the retention ratio (1 - dividend payout ratio)

8 Q. What sustainable growth rate did you calculate for the comparables?

9 A. The average five-year and ten-year sustainable growth rates were 2.87 percent and 2.74  
10 percent, respectively. The rates were calculated by multiplying return on equity ( $b$ ) by  
11 the retention ratio ( $r$ ) and then averaging the results over a five- and ten-year period.

12 Q. What are the results of your DCF analysis?

13 A. Schedule WAR-11 depicts the results of my DCF analysis. The results range from 6.6  
14 percent to 11.0 percent.

15  
16 CAPITAL ASSET PRICING MODEL

17 Q. Please describe the Capital Asset Pricing Model ("CAPM").

18 A. The CAPM provides an estimate for the expected return on an investment (stock). The  
19 model assumes that the expected return is a combination of the prevailing risk-free  
20 interest rate and a market risk premium adjusted for the riskiness of the investment  
21 relative to the market. Thus, there is an assumed relationship among the returns of the  
22 risk-free interest rate, the return on the stock market and the return on an individual stock.  
23 The expected return generated by the CAPM is then used as a proxy for the cost of equity  
24 capital for that company.

25 ...

26 ...

27 ...

28 ...

1 Q. What is the CAPM formula?

2 A.  $k = R_f + \beta(R_m - R_f)$

3 Where:

4 K = Expected rate of return (cost of equity)

5  $R_f$  = Risk-free rate of interest

6  $\beta$  = Beta coefficient

7  $R_m$  = Expected rate of return on the market

8  $(R_m - R_f)$  = Expected risk premium on the market

9 Q. How have you implemented the CAPM in your analysis of the cost of equity for Rio Verde?

10 A. The CAPM described in Chapter 8 of Principles of Corporate Finance, provides the basis  
11 for the model. The cost of equity estimates generated by the CAPM are used to  
12 supplement the estimates produced by the DCF model explained above, rather than as the  
13 primary determinant of the cost of equity.

14 Q. What is the risk-free rate of interest?

15 A. The risk-free rate is the current yield-to-maturity on U. S. Treasury Bills ("T-Bills"). All  
16 U. S. securities are considered to be free of default risk, but the 90-day T-Bill is the only  
17 one that is considered to be free of interest rate risk as well. This is due to its short  
18 holding period. However, most investors have holding periods exceeding 90 days.

19  
20 The CAPM allows for intermediate-term and long-term estimates through the use of  
21 longer term risk-free securities. Five-year Treasury notes (intermediate-term) and 30-  
22 year Treasury bonds (long-term) are used to provide estimates which more closely match  
23 investors' holding periods. Ninety-day T-Bills are also used in order to provide a range  
24 of investor holding periods. The 90-day T-Bill, five-year Treasury note and 30-year  
25 Treasury bond rates used, from the October 25, 2000 Wall Street Journal, were 6.2  
26 percent, 5.7 percent and 5.8 percent, respectively.

27 ...

28 ...

1 Forecasted yields on the same risk-free instruments found in the October 1, 2000, Blue  
2 Chip Financial Forecasts were also used in order to obtain a sense of interest rate  
3 expectations. The projected interest rates, with the exception of the 90-day T-Bill, are  
4 slightly higher than the current rates, indicating that there is a consensus opinion of a  
5 decrease in rates during the next year.

6  
7 Q. Please describe the beta ( $\beta$ ) coefficient.

8 A. Beta is a measure of market risk. It measures the sensitivity of a stock's return relative to  
9 market returns. For example, if a stock has a beta of 1.5 and the market increases by ten  
10 percent, then the stock price will increase by fifteen percent and so forth. The beta used  
11 for Rio Verde should reflect the typical market risk of an investment in a regulated water  
12 utility company. Schedule WAR-7 depicts the Value Line betas for the five water  
13 utilities it tracks and their average beta of 0.57.

14  
15 Q. Please describe the expected risk premium on the market ( $R_m - R_f$ ).

16 A. The expected risk premium on the market is the amount of additional return that investors  
17 expect from investing in the market over the return on the risk-free asset, T-Bills,  
18 Treasury notes, and Treasury bonds. The equity risk premium used in my analysis was  
19 obtained from Ibbotson Associates for the 73-year period from 1926 to 1999 and  
20 represents the arithmetic average difference between S&P 500 and government security  
21 returns. The 73-year period is used to eliminate shorter-term biases while at the same  
22 time including unexpected past events. The average risk premia are shown under the ( $R_p$ )  
23 column of Schedule WAR-11;  $R_p$  is simply ( $R_m - R_f$ ).

24 ...  
25 ...  
26 ...  
27 ...  
28 ...

1 Q. What are the results of your CAPM analysis?

2 A. Schedule WAR-12 shows the results of my CAPM analysis. They range from 10.4  
3 percent to 11.5 percent using current interest rates. The estimates range from 10.3  
4 percent to 11.4 percent using consensus forecast estimates from Blue Chip Economic  
5 Forecasts, reflecting expectations of slightly lower interest rates.

6  
7 RECOMMENDATIONS

8 Q. What are the results of your cost of equity analysis?

9 A. The results of my comparable earnings, DCF, and CAPM analyses are shown in  
10 Schedules WAR-11 and WAR-12.

11  
12 Q. How do the results from the different methods compare?

13 A. The comparable earnings results range from 10.3 percent to 11.5 percent. The DCF  
14 results range from 6.6 percent to 11.0 percent and the CAPM results range from 10.3  
15 percent to 11.5 percent.

16  
17 Q. Which results did you rely on for your recommendation?

18 A. I would accept the DCF and CAPM as being the most theoretically sound, with emphasis  
19 placed on DCF results using dividend growth. I would also consider the return on  
20 common equity of the comparables as a check for the DCF and CAPM models.

21  
22 The results of the historical DCF using dividend growth ranged from 6.6 percent to 6.7  
23 percent. None of these results equal or exceed both the company's embedded cost of  
24 debt and the current prime rate of interest, and are, therefore, unreasonably low. The  
25 DCF results using earnings growth ranged from 7.2 percent to 7.4 percent. The DCF  
26 results using sustainable earnings ranged from 6.7 percent to 6.8 percent. Again, only  
27 those results above both the prime rate of interest and the Company's embedded cost of  
28 debt can be considered in the usable range of values.

1 I believe the DCF results using historical earnings, projected dividends and projected  
2 earnings per share growth shown on Schedule WAR-11 are the most reflective of  
3 investor expectations for the water and sewer utility industry. These results range from  
4 7.0 percent to 11.0 percent using the spot stock price and 7.0 percent to 11.0 percent  
5 using the average stock price. The projected DCF results using earnings per share growth  
6 exceed Rio Verde's cost of debt and exceed the Prime rate; this represents the extreme  
7 high end of the range from which my recommended cost of equity was drawn.

8  
9 I believe that the CAPM result that most closely matches the holding period of an  
10 investment in the water utility industry is the current intermediate-term estimate of 10.5  
11 percent. The projected intermediate-term estimate is 10.7 percent which indicates that  
12 interest rates are expected to decline slightly from current levels.

13  
14 I also included the 1999 10.7 percent return on common equity for the nine publicly-  
15 traded comparable water and sewer utilities and the 11.5 percent ROE for the eight  
16 Arizona comparable water and sewer companies with the results of the DCF and CAPM  
17 analyses as a check for reasonableness. This led me to exclude the historical DCF results  
18 using the 10-year earnings growth rates and the 5-year projected DCF results using  
19 forecasted dividends as being too low. The new "floor" of the range became the 10.3  
20 percent cost of equity figure generated by the CAPM.

21  
22 Q. What is your recommendation for Rio Verde's cost of equity?

23 A. My recommended cost of equity is 11.00 percent. The midpoint of the final range of  
24 usable values (10.3 percent to 11.0 percent) is 10.65 percent. I chose the higher 11.00  
25 percent figure after taking Rio Verde's specific risk factors, particularly its higher  
26 financial risk, relative to both the publicly-traded and Arizona comparable water and  
27 sewer companies.

28 ...

1 Q. Will you make any other adjustments for risk?

2 A. No. I do not feel that any are warranted. I believe I have accounted for all of Rio  
3 Verde's relevant risk factors in my recommendation.

4

5 Q. What is your recommendation for a weighted average cost of capital ("WACC") to be  
6 used as the return on rate base?

7 A. My recommendation for an overall WACC is 10.65 percent for Rio Verde's water  
8 division and 9.67 percent for the Company's wastewater division.

9

10 Q. Should your cost of capital results be considered a primary and relevant factor to  
11 determine a fair and reasonable rate of return on Original Cost Rate Base?

12 A. Yes. My cost of capital results should be considered the primary guide to setting a fair  
13 and reasonable rate of return on Rio Verde's Original Cost Rate Base. No other factors  
14 discourage the use of the cost of capital results as the primary consideration in setting a  
15 fair and reasonable rate of return for Rio Verde.

16

17 REBUTTAL OF RON L. KOZOMAN

18 Q. Have you reviewed Mr. Kozoman's direct testimony?

19 A. Yes.

20

21 Q. What methodologies did Mr. Kozoman use to arrive at his estimation for the cost of  
22 equity capital for Rio Verde?

23 A. Mr. Kozoman used market-weighted DCF and CAPM models to arrive at unadjusted  
24 costs of equity of 12.0 percent and 12.19 percent, respectively. He then adjusted the  
25 results of the two methodologies by adding 75 basis points to the DCF result and 56 basis  
26 points to the CAPM result.

27 ...

28 ...

1 Q. Which method has the Commission consistently adopted in the past?

2 A. The Commission has consistently adopted the results of the annual DCF model because  
3 its results are market-based. It has also recognized the validity of the CAPM, another  
4 market-based model, as well as comparable earnings in determining the cost of common  
5 equity.

6  
7 Q. Please comment on Mr. Kozoman's use of market-weighted DCF and CAPM models.

8 A. Mr. Kozoman's market weighted DCF and CAPM models produce results that are  
9 artificially high.

10  
11 Mr. Kozoman's DCF results without market weighting would be 6.28 percent using the  
12 spot stock price and 6.73 percent using the average stock price. The CAPM results  
13 would be 4.62 percent to 4.17 percent higher than the DCF results at 10.9 percent. His  
14 market weighting technique artificially inflates the DCF estimate by 146 basis points  
15 using the spot stock price and 142 basis points using the average stock price. The CAPM  
16 results are inflated by 129 basis points.

17  
18 Q. Please comment on Mr. Kozoman's sample size utilized in his analyses.

19 A. Mr. Kozoman defines the water and sewer utility industry as the six companies followed  
20 by Value Line (at the time the instant application was filed, Value Line only tracked five  
21 water and sewer companies). There are currently 13 publicly-traded water and sewer  
22 companies, nine of which have been included in Staff's DCF analysis. These nine  
23 constitute the entire population of consistently profitable, publicly-traded water and  
24 sewer companies for which information is widely available. In addition to this, I used  
25 eight comparable Class B Arizona water and sewer utilities in my comparable earnings  
26 analysis in order to capture the regulatory and size risks faced by Rio Verde.

27 ...

28 ...

1 Q. Please comment on the nine risks listed on Pages 43 and 44 of Mr. Kozoman's direct  
2 testimony that he believes warrant a positive risk premium for Rio Verde.

3 A. Mr. Kozoman lists the following nine risks as a justification for a positive risk premium:

- 4 1) Inability to construct the necessary water or wastewater plant (lack of internal cash  
5 flow to fund plant additions);
- 6 2) Not having total expense true-ups;
- 7 3) Use of a historic test year vs. forecasted test years;
- 8 4) Increasing regulatory requirements set forth by the Arizona Department of  
9 Environmental Quality ("ADEQ"), and continually changing regulatory  
10 recommendations from the Commission;
- 11 5) Small size which makes financing much more difficult and expensive;
- 12 6) Small size which makes the ever changing regulatory climate much more expensive  
13 for a small water or wastewater utility;
- 14 7) Lack of ready access to capital markets;
- 15 8) Increasing risk of acquiring water system parts that contain high levels of lead or  
16 possible proposed regulations on radon, which occurs naturally in Arizona;
- 17 9) The Commission's failure to accept an adjustment to water sales for utilities with  
18 service territories located in a desert climate.

19 The "risks" outlined here are issues that utility managers can deal with by taking  
20 proactive steps. Items 1, 2, 3, 4 and 9 can be eliminated by anticipating possible  
21 regulatory changes and by filing for rate increases on a regular and timely basis. This  
22 helps to eliminate operating losses and provides the company with the cash flow needed  
23 for planned additions. It also insures that revenues are adequate to cover expenses that  
24 may result from changing ADEQ regulations on water testing. In addition to this, utilities  
25 can take advantage of cost free capital in the form of advances and contributions in aid of  
26 construction. In regard to the historic test year issue, the ACC Staff has consistently  
27 recommended reasonable proforma adjustments to historic test year results so long as  
28 those adjustments were based on known and measurable events.

1 Items 5, 6 and 7 do not take into consideration low interest rate Water Infrastructure  
2 Finance Authority ("WIFA") loans that are available to water utilities operating in  
3 Arizona. This includes Rio Verde's water division. The Commission not only  
4 encourages water companies to apply for WIFA loans but also encourages them to apply  
5 for new rates at the same time so that revenue levels can be increased to cover the debt  
6 service associated with the WIFA loans. The fact that Rio Verde's sewer division has  
7 existing CoBank debt that was approved by the ACC is evidence that the Company has  
8 not been cut off from outside sources of capital for needed plant at a reasonable cost. In  
9 the instant case, the only delay in obtaining a decision on the Company-proposed long-  
10 term debt is Rio Verde's decision not to provide Staff with either preliminary paperwork  
11 or a copy of the proposed loan agreement. Item 7 has not prevented Rio Verde from  
12 obtaining capital for plant additions in the past, either from cash infusions from its parent  
13 or by obtaining loans from CoBank. Again, the company could also seek financing  
14 through WIFA.

15  
16 Item 8 is a problem faced by virtually all water utilities and would not warrant a positive  
17 risk adjustment in Rio Verde's case.

18  
19 Q. Do you believe Mr. Kozoman's recommended cost of equity is reasonable for Rio Verde?

20 A. No. As I have stated, his market-weighted results are inflated and his risk assessment  
21 fails to consider the Company in relation to comparable Class B Arizona water and sewer  
22 utilities.

23  
24 Q. Does the absence of rebuttal testimony to all of Mr. Kozoman's positions mean that you  
25 necessarily agree with these positions?

26 A. No.

27 ...

28 ...

1 Q. Does this conclude your direct testimony?

2 A. Yes, it does.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

**CAPITAL STRUCTURE AND WEIGHTED COST OF CAPITAL  
RIO VERDE UTILITIES, INC. - WATER DIVISION**

<u>Line No.</u>	<u>[ A ] Description</u>	<u>[ B ] Amount</u>	<u>[ C ] Weight (%)</u>	<u>[ D ] Cost</u>	<u>[ E ] Weighted Cost</u>
1	Long-Term Debt	\$566,223	18.99%	9.14%	1.74%
2	Stockholder's Equity	<u>2,415,521</u>	<u>81.01%</u>	11.00%	<u>8.91%</u>
3	<b>Total Capitalization</b>	<u><u>\$2,981,744</u></u>	<u><u>100.00%</u></u>		<u><u>10.65%</u></u>

**Explanations:**

Line 1 - Direct Testimony of William A. Rigsby

Line 2 - Schedule WAR-1 Page 3 of 3

RIO VERDE UTILITIES, INC.

Docket No. WS-02156A-00-0321 Et Al.

Test Year Ended December 31, 1999

COST OF LONG-TERM DEBT  
RIO VERDE UTILITIES, INC. - WATER DIVISION

Line No.	[ A ] Description	[ B ] Capitalization Per Company	[ C ] Staff Adjustment	[ D ] Capitalization Per Staff	[ E ] Capital Ratio	[ F ] Cost Per Staff	[ G ] Weighted Cost
1	Second Rio Verde Company Loan	\$566,223	\$0	\$566,223	100.00%	9.14%	9.14%
2	Proposed CoBank Loan	1,290,389	(1,290,389)	0	0.00%	0.00%	0.00%
3	Totals	<u>\$1,856,612</u>	<u>(\$1,290,389)</u>	<u>\$566,223</u>	<u>100.00%</u>		<u>9.14%</u>

Explanations:

Lines 1 thru 3 - Direct Testimony of William A. Rigsby

RIO VERDE UTILITIES, INC.  
Docket No. WS-02156A-00-0321 Et Al.  
Test Year Ended December 31, 1999

Schedule WAR-1  
Page 3 of 3

COST OF EQUITY CAPITAL  
RIO VERDE UTILITIES, INC. - WASTEWATER DIVISION

Line No.	[A] Description	[B] Capitalization Per Company	[C] Staff Adjustment	[D] Capitalization Per Staff	[E] Capital Ratio	[F] Cost	[G] Weighted Cost
1	Common Equity	\$1,412,364	\$0	\$1,412,364	58.47%	11.00%	6.43%
2	Retained Earnings	1,003,157	0	1,003,157	41.53%	11.00%	4.57%
3	<b>Total Equity</b>	<b><u>\$2,415,521</u></b>	<b><u>\$0</u></b>	<b><u>\$2,415,521</u></b>	<b><u>100.00%</u></b>		<b><u>11.00%</u></b>

Explanations:

Lines 1 thru 3 - Direct Testimony of William A. Rigsby, Schedule WAR-11

RIO VERDE UTILITIES, INC.  
Docket No. WS-02156A-00-0321 Et Al.  
Test Year Ended December 31, 1999

Schedule WAR-2  
Page 1 of 4

**CAPITAL STRUCTURE AND WEIGHTED COST OF CAPITAL  
RIO VERDE UTILITIES, INC. - WASTEWATER DIVISION**

Line No.	[ A ] Description	[ B ] Amount	[ C ] Weight (%)	[ D ] Cost	[ E ] Weighted Cost
1	Long-Term Debt	\$1,844,602	58.19%	8.71%	5.07%
2	Stockholder's Equity	<u>1,325,092</u>	<u>41.81%</u>	11.00%	<u>4.60%</u>
3	<b>Total Capitalization</b>	<b><u>\$3,169,694</u></b>	<b><u>100.00%</u></b>		<b><u>9.67%</u></b>

**Explanations:**

Line 1 - Schedule WAR-2 Page 2 of 4

Line 2 - Schedule WAR-2 Page 4 of 4

**COST OF LONG-TERM DEBT  
 RIO VERDE UTILITIES, INC. - WASTEWATER DIVISION**

Line No.	Description	[A] Capitalization Per Company	[B] Staff Adjustment	[C] Capitalization Per Staff	[D] Capital Ratio	[E] Cost Per Staff	[F] Weighted Cost
1	Existing CoBank Loan	\$1,844,602	\$0	\$1,844,602	100.00%	8.71%	8.71%
2	Proposed CoBank Loan	<u>1,179,398</u>	<u>(1,179,398)</u>	<u>0</u>	<u>0.00%</u>	0.00%	<u>0.00%</u>
3	<b>Totals</b>	<u><b>\$3,024,000</b></u>	<u><b>(\$1,179,398)</b></u>	<u><b>\$1,844,602</b></u>	<u><b>100.00%</b></u>		<u><b>8.71%</b></u>

**Explanations:**

Line 1 - Cost Per Staff - Schedule WAR-2 Page 3 of 4

Line 2 - Direct Testimony of William A. Rigsby

**COST OF DEBT - EXISTING COBANK LOAN  
 RIO VERDE UTILITIES, INC. - WASTEWATER DIVISION**

Line No.	<u>Description</u>		
1	Outstanding CoBank Loan	\$1,844,602	
2	Rate of Interest (a)	<u>9.14%</u>	
3	Annual Interest Expense (Line 1 x Line 2)		\$168,681
4			
5	Add:		
6	Amortized Deferred Financing Costs and Finance Charges (b)		\$2,714
7			
8	Less:		
9	Interest Income on Debt Reserve Fund		<u>\$10,786</u>
10			
11	Net Annual Interest Expense (Line 3 + Line 6 - Line 9)		<u>\$160,609</u>
12			
13	<b>Cost of Debt on Existing Cobank Loan (Line 11 ÷ Line 1)</b>		<b>8.71%</b>

**Notes**

(a) Interest Expense Paid During Test Year on CoBank Loan	\$168,681
Outstanding Loan Amount	<u>\$1,844,602</u>
Test Year Fixed Variable/Interest Rate (Line 19 ÷ Line 20)	<u>9.14%</u>

(b) [ Deferred Financing Costs + Unamortized Finance Charges ] ÷ 15 Years =  
 [ \$23,490 + \$17,226 ] ÷ 15 Years = \$2,714

**COST OF DEBT - EXISTING COBANK LOAN  
 RIO VERDE UTILITIES, INC. - WASTEWATER DIVISION**

<u>Line</u>	<u>No.</u>	<u>Description</u>		
	1	Outstanding CoBank Loan	\$1,844,602	
	2	Rate of Interest (a)	<u>9.14%</u>	
	3	Annual Interest Expense (Line 1 x Line 2)		\$168,681
	4			
	5	Add:		
	6	Amortized Deferred Financing Costs and Finance Charges (b)		\$2,714
	7			
	8	Less:		
	9	Interest Income on Debt Reserve Fund		<u>\$10,786</u>
	10			
	11	Net Annual Interest Expense (Line 3 + Line 6 - Line 9)		<u>\$160,609</u>
	12			
	13	<b>Cost of Debt on Existing Cobank Loan (Line 11 ÷ Line 1)</b>		<b>8.71%</b>

**Notes**

(a) Interest Expense Paid During Test Year on CoBank Loan	\$168,681
Outstanding Loan Amount	<u>\$1,844,602</u>
Test Year Fixed Variable/Interest Rate (Line 19 ÷ Line 20)	<u>9.14%</u>

(b) [ Deferred Financing Costs + Unamortized Finance Charges ] ÷ 15 Years =  
 [ \$23,490 + \$17,226 ] ÷ 15 Years = \$2,714

RIO VERDE UTILITIES, INC.  
Docket No. WS-02156A-00-0321 Et Al.  
Test Year Ended December 31, 1999

Schedule WAR-2  
Page 4 of 4

COST OF EQUITY CAPITAL  
RIO VERDE UTILITIES, INC. - WASTEWATER DIVISION

Line No.	[ A ] Description	[ B ] Capitalization Per Company	[ C ] Staff Adjustment	[ D ] Capitalization Per Staff	[ E ] Capital Ratio	[ F ] Cost	[ G ] Weighted Cost
1	Common Equity	\$1,428,357	\$0	\$1,428,357	107.79%	11.00%	11.86%
2	Retained Earnings	(103,265)	0	(103,265)	-7.79%	11.00%	-0.86%
3	<b>Total Equity</b>	<b>\$1,325,092</b>	<b>\$0</b>	<b>\$1,325,092</b>	<b>100.00%</b>		<b>11.00%</b>

Explanations:

Lines 1 thru 3 - Direct Testimony of William A. Rigsby, Schedule WAR-11

**CAPITAL STRUTURES OF PUBLICLY-TRADED COMPARABLE COMPANIES AND  
ALL WATER COMPANIES FOLLOWED BY VALUE LINE INVESTMENT SURVEY  
FOR THE YEAR ENDED DECEMBER 31, 1998**

Line No.	[ A ] Name of Company	[ B ] Stock Symbol	[ C ] Long-Term Debt *	[ D ] Preferred Stock	[ E ] Common Equity	[ F ] Total
1	American States Water **	AWR	43.6%	0.7%	55.7%	100.0%
2	American Water Works **	AWK	61.2%	2.8%	36.0%	100.0%
3	California Water Service **	CWT	44.2%	1.1%	54.7%	100.0%
4	Connecticut Water Service	CTWS	51.8%	0.6%	47.6%	100.0%
5	E'Town Corporation **	ETW	52.6%	2.6%	44.8%	100.0%
6	Middlesex Water	MSEX	52.1%	3.3%	44.6%	100.0%
7	Philadelphia Suburban **	PSC	52.7%	0.7%	46.6%	100.0%
8	SJW Corp.	SJW	38.6%	0.0%	61.4%	100.0%
9	York Water Co.	YORW	51.3%	0.0%	48.7%	100.0%
10						
11						
12	<b>Average</b>		<b>49.8%</b>	<b>1.3%</b>	<b>48.9%</b>	<b>100.0%</b>
13						
14						
15	<b>All Value Line Utilites</b>		<b>50.9%</b>	<b>1.6%</b>	<b>47.6%</b>	<b>100.0%</b>
16						
17						
18	<b>Rio Verde Utilities, Inc. - Water</b>		<b>20.3%</b>	<b>0.0%</b>	<b>79.7%</b>	<b>100.0%</b>
19						
20	<b>Rio Verde Utilities, Inc. - Wastewater</b>		<b>56.2%</b>	<b>0.0%</b>	<b>43.8%</b>	<b>100.0%</b>

**Notes:**

\* Less Current Portion of Long-Term Debt  
\*\* Followed by Value Line Investment Survey

**Sources:**

Lines 1 thru 9 - Form 10-K's and 10-Q's filed with the U.S. Security and Exchange Commission  
Lines 18 and 20 - Rio Verde Utilities, Inc.'s Application, Schedule E1, Page 1

**CAPITAL STRUCTURES OF PUBLICLY-TRADED COMPARABLE COMPANIES AND  
ALL WATER COMPANIES FOLLOWED BY VALUE LINE INVESTMENT SURVEY  
FOR THE YEAR ENDED DECEMBER 31, 1999**

Line No.	[ A ] Name of Company	[ B ] Stock Symbol	[ C ] Long-Term Debt *	[ D ] Preferred Stock	[ E ] Common Equity	[ F ] Total
1	American States Water **	AWR	51.0%	0.6%	48.4%	100.0%
2	American Water Works **	AWK	58.1%	2.2%	39.7%	100.0%
3	California Water Service **	CWT	46.9%	1.1%	52.0%	100.0%
4	Connecticut Water Service	CTWS	50.8%	0.6%	48.6%	100.0%
5	E'Town Corporation **	ETW	52.4%	2.4%	45.2%	100.0%
6	Middlesex Water	MSEX	52.5%	2.6%	44.9%	100.0%
7	Philadelphia Suburban **	PSC	52.9%	0.4%	46.7%	100.0%
8	SJW Corp.	SJW	38.5%	0.0%	61.5%	100.0%
9	York Water Co.	YORW	51.5%	0.0%	48.5%	100.0%
10						
11						
12	<b>Average</b>		<b>50.5%</b>	<b>1.1%</b>	<b>48.4%</b>	<b>100.0%</b>
13						
14						
15	<b>All Value Line Utilites</b>		<b>52.3%</b>	<b>1.3%</b>	<b>46.4%</b>	<b>100.0%</b>
16						
17						
18	<b>Rio Verde Utilities, Inc. - Water</b>		<b>18.6%</b>	<b>0.0%</b>	<b>81.4%</b>	<b>100.0%</b>
19						
20	<b>Rio Verde Utilities, Inc. - Wastewater</b>		<b>58.8%</b>	<b>0.0%</b>	<b>41.2%</b>	<b>100.0%</b>

**Notes:**

\* Less Current Portion of Long-Term Debt

\*\* Followed by Value Line Investment Survey**Sources:**

Lines 1 thru 9 - Form 10-K's and 10-Q's filed with the U.S. Security and Exchange Commission

Lines 18 and 20 - Rio Verde Utilities, Inc.'s Application, Schedule E1, Page 1

RIO VERDE UTILITIES, INC.

Docket No. WS-02156A-00-0321 Et Al.

Test Year Ended December 31, 1999

CUSTOMERS, REVENUE, CAPITAL STRUCTURE, NET INCOME, AND RETURN ON COMMON EQUITY  
OF CLASS B AND C INVESTOR-OWNED ARIZONA WATER AND SEWER COMPANIES  
FOR THE YEAR ENDED DECEMBER 31, 1998

Line No.	[A] Name of Company	[B] No. of Customers	[C] Revenues	[D] Common Equity	[E] Long-Term Debt*	[F] Contributions & Advances	[G] Total Capital	[H] Net Income	[I] % Equity	[J] Capital Structure % Debt	[K] Total	[L] Return on Common Equity
1	Arizona American Water Company**	4,639	\$4,254,550	\$5,943,340	\$4,771,601	\$9,633,790	\$20,348,731	\$567,464	55.5%	44.5%	100.0%	10.6%
2	Bermuda Water Company, Inc.	4,153	1,500,023	1,196,632	466,848	3,593,947	5,257,427	153,659	71.9%	28.1%	100.0%	15.2%
3	Big Park Water Company	2,287	1,014,408	932,292	18,886	1,118,989	2,070,167	182,695	98.0%	2.0%	100.0%	4.4%
4	Chaparral City Water	9,662	4,783,888	8,405,964	10,286,309	7,866,494	26,558,767	977,703	45.0%	55.0%	100.0%	20.4%
5	Cottonwood Water Works, Inc.	3,730	1,129,310	1,919,908	0	2,987,335	4,907,243	108,728	100.0%	0.0%	100.0%	7.4%
6	Pima Utilities - Water Division	7,592	1,614,264	7,404,233	0	247,239	7,651,472	717,919	100.0%	0.0%	100.0%	11.1%
7	Pueblo Del Sol Water	2,874	1,151,284	2,260,695	1,055,110	92,594	3,408,399	309,552	68.2%	31.8%	100.0%	14.7%
8	Saddlebrooke Utility Company	2,217	1,230,575	4,094,843	3,870,000	0	7,964,843	383,873	51.4%	48.6%	100.0%	10.2%
9												
10	Average	4,644	\$2,084,788	\$4,019,738	\$2,558,594	\$3,192,549	\$9,770,881	\$425,199	73.7%	26.3%	100.0%	11.7%
11												
12	Truncated Average											11.5%
13												
14	Rio Verde Utilities, Inc. - Water	1,174	\$788,598	\$2,219,929	566,225	717,307	3,503,461	\$144,302	79.7%	20.3%	100.0%	6.7%
15												
16	Rio Verde Utilities, Inc. - Wastewater	1,120	\$540,258	\$1,432,528	1,839,016	1,061,130	4,332,674	(\$113,548)	43.8%	56.2%	100.0%	-7.6%

Notes:

\* Less Current Portion of Long-Term Debt

\*\* Formerly known as Paradise Valley Water Company

Sources:

1997 and 1998 Annual Reports filed with the ACC Utilities Division

RIO VERDE UTILITIES, INC.  
Docket No. WS-02156A-00-0321 Et Al.  
Test Year Ended December 31, 1999

CUSTOMERS, REVENUE, CAPITAL STRUCTURE, NET INCOME, AND RETURN ON COMMON EQUITY  
OF CLASS B AND C INVESTOR-OWNED ARIZONA WATER AND SEWER COMPANIES  
FOR THE YEAR ENDED DECEMBER 31, 1999

Line No.	[A] Name of Company	[B] No. of Customers	[C] Revenues	[D] Common Equity	[E] Long-Term Debt *	[F] Contributions & Advances	[G] Total Capital	[H] Net Income	[I] % Equity	[J] Capital Structure % Debt	[K] Total	[L] Return on Common Equity
1	Arizona American Water Company **	4,668	\$4,794,253	\$6,121,114	\$4,759,970	\$9,197,253	\$20,078,337	\$619,192	56.3%	43.7%	100.0%	10.3%
2	Bermuda Water Company, Inc.	4,388	1,676,203	1,319,442	449,081	3,531,167	5,299,690	182,810	74.6%	25.4%	100.0%	14.5%
3	Big Park Water Company	2,417	1,085,635	1,016,292	23,984	1,419,346	2,459,622	121,260	97.7%	2.3%	100.0%	12.4%
4	Chaparral City Water	10,509	5,403,037	9,094,042	9,850,309	10,368,922	29,313,273	921,794	48.0%	52.0%	100.0%	10.5%
5	Cottonwood Water Works, Inc.	3,947	1,103,509	2,049,362	0	3,127,616	5,176,978	169,819	100.0%	0.0%	100.0%	8.6%
6	Pima Utilities - Water Division	7,896	1,814,249	8,456,873	0	301,290	8,758,163	627,519	100.0%	0.0%	100.0%	7.9%
7	Pueblo Del Sol Water	3,112	1,309,078	2,647,884	957,343	92,594	3,697,821	387,189	73.4%	26.6%	100.0%	15.8%
8	Saddlebrooke Utility Company	2,548	1,179,588	4,655,389	3,785,000	0	8,440,389	560,546	55.2%	44.8%	100.0%	12.8%
9												
10	Average	4,936	\$2,295,694	\$4,420,050	\$2,478,211	\$3,504,774	\$10,403,034	\$448,766	75.6%	24.4%	100.0%	11.6%
11												
12	Truncated Average											11.5%
13												
14	Rio Verde Utilities, Inc. - Water	1,247	\$948,286	\$2,415,630	\$552,581	\$1,269,935	\$4,238,146	\$195,701	81.4%	18.6%	100.0%	16.2%
15												
16	Rio Verde Utilities, Inc. - Wastewater	1,191	\$587,969	\$1,253,199	\$1,784,879	\$1,943,194	\$4,981,272	(\$179,329)	41.2%	58.8%	100.0%	-28.6%

Notes:

\* Less Current Portion of Long-Term Debt

\*\* Formerly known as Paradise Valley Water Company

Sources:

1998 and 1999 Annual Reports filed with the ACC Utilities Division

HISTORICAL AND PROJECTED PLANT ADDITIONS  
1992 - 2003  
RIO VERDE UTILITIES, INC. - WATER DIVISION

<u>Line No.</u>	<u>[ A ] Period</u>	<u>[ B ] Gross Plant In Service</u>	<u>[ C ] Plant Additions</u>	<u>[ D ] Change</u>
1	1992	\$1,631,443		
2	1993	1,767,171	\$135,728	8.3%
3	1994	2,213,946	446,775	25.3%
4	1995	3,476,251	1,262,305	57.0%
5	1996	3,709,698	233,447	6.7%
6	1997	4,794,198	1,084,500	29.2%
7	1998	5,880,835	1,086,637	22.7%
8	1999	6,619,373	738,538	12.6%
9	*2000	8,255,472	1,636,099	24.7%
10	*2001	8,334,684	79,212	1.0%
11	*2002	8,413,897	79,212	1.0%
12	*2003	8,493,109	79,212	0.9%

**Note:**

\* 2000 - 2003 are projected in the context of this case

**Source:**

Annual reports to the ACC 1992-1999

HISTORICAL AND PROJECTED PLANT ADDITIONS  
1992 - 2003  
RIO VERDE UTILITIES, INC. - WASTEWATER DIVISION

<u>Line No.</u>	<u>[ A ] Period</u>	<u>[ B ] Gross Plant In Service</u>	<u>[ C ] Plant Additions</u>	<u>[ D ] Change</u>
1	1992	\$1,608,953		
2	1993	2,132,968	\$524,015	32.6%
3	1994	2,596,719	463,751	21.7%
4	1995	2,937,567	340,848	13.1%
5	1996	4,827,897	1,890,330	64.4%
6	1997	4,794,198	(33,699)	-0.7%
7	1998	5,880,835	1,086,637	22.7%
8	1999	6,619,373	738,538	12.6%
9	*2000	9,040,591	2,421,218	36.6%
10	*2001	9,121,942	81,351	0.9%
11	*2002	9,203,294	81,351	0.9%
12	*2003	9,284,645	81,351	0.9%

**Note:**

\* 2000 - 2003 are projected in the context of this case

**Source:**

Annual reports to the ACC 1992-1999

COMPARATIVE GROWTH STATISTICS

Line No.	[A] Name of Company	[B] 1990	[C] 1997	[D] 1999	[E] 8-Yr. Growth 1990-98	[F] 1-Yr. Growth 1998-99
1	Rio Verde Utilities, Inc. - Water	720	1,174	1,247	7.1%	6.2%
2	Rio Verde Utilities, Inc. - Wastewater	692	1,120	1,191	7.0%	6.3%
3						
4	Arizona American Water Company *	4,176	4,639	4,668	1.4%	0.6%
5	Bermuda Water Company, Inc.	1,688	4,153	4,388	12.7%	5.7%
6	Big Park Water Company	1,660	2,287	2,417	4.8%	5.7%
7	Chaparral City Water	5,248	9,662	10,509	9.1%	8.8%
8	Cottonwood Water Works, Inc.	2,698	3,730	3,947	4.9%	5.8%
9	Pima Utilities - Water Division	4,999	7,592	7,896	5.9%	4.0%
10	Pueblo Del Sol Water	1,323	2,874	3,112	11.3%	8.3%
11	Saddlebrooke Utility Company	292	2,217	2,548	31.1%	14.9%
12						
13	<b>Average</b>				<b>10.1%</b>	<b>6.7%</b>
14	<b>Truncated Average</b>				<b>8.1%</b>	<b>6.4%</b>
15						
16					<b>8-Yr. Growth</b>	
17	<b>Population:</b>	<b>1990</b>	<b>1998</b>		<b>1990-98</b>	
18	Maricopa County **	2,122,101	2,806,100		<b>3.6%</b>	
19	Arizona	3,665,228	4,764,025		<b>3.3%</b>	

**Notes**

\* Formerly known as Paradise Valley Water Company

\*\* No population data on Rio Verde was available

**Sources:**

Lines 1 thru 11 - Annual Reports to the Utilities Division of the ACC

Lines 17 thru 19 - Arizona Department of Commerce Community Profiles

RIO VERDE UTILITIES, INC.  
 Docket No. WS-02156A-00-0321 Et Al.  
 Test Year Ended December 31, 1999

PUBLICLY TRADED WATER COMPANIES  
 SUMMARY FINANCIAL & COMMON STOCK INFORMATION  
 FOR THE YEAR ENDED DECEMBER 31, 1999

Line No.	Name of Company	[A] Current	[C] Market Price Per Share			[D] 12 Mo. Low	[E] Mkt. To Book Ratio	[F] 1998 Revs. (\$000)	[G] 1999 Revs. (\$000)	[H] 1998 Total Cap. (\$000)	[I] 1999 Total Cap. (\$000)	[J] Int. Cov.	[K] Beta	[L] 1999 ROE
			[B] Current	12 Mo. High	12 Mo. Low									
1	American States Water *	\$30.25	\$39.75	\$25.00	1.76	\$148,060	\$173,421	\$277,108	\$328,169	3.27	0.65	10.1%		
2	American Water Works *	23.81	29.50	18.94	1.84	1,200,037	1,260,857	4,121,706	3,910,887	2.27	0.55	9.0%		
3	California Water Service *	25.38	32.00	21.50	1.90	189,659	206,440	313,930	337,229	3.43	0.60	11.4%		
4	Connecticut Water Service	30.50	37.00	25.50	2.44	40,303	42,624	126,709	128,666	3.76	0.50	12.1%		
5	ETown Corporation *	67.38	68.00	45.13	2.74	134,847	138,306	465,721	477,303	2.97	0.50	8.5%		
6	Middlesex Water	28.69	35.88	25.00	2.11	43,058	53,497	149,757	156,882	3.29	0.55	11.0%		
7	Philadelphia Suburban *	21.56	24.94	16.50	3.76	250,771	257,326	727,462	782,653	2.86	0.55	12.3%		
8	SJW Corp.	118.50	122.00	98.00	2.62	106,010	117,001	233,149	233,894	4.68	0.57	11.1%		
9	York Water Co.	15.50	17.75	13.50	1.52	10,016	10,199	30,380	30,830	1.18	0.57	10.3%		
10														
11	Maximum				3.76	\$1,200,037	\$1,260,857	\$4,121,706	\$3,910,887	4.68	0.65	12.3%		
12	Minimum				1.52	\$10,016	\$10,199	\$30,380	\$30,830	1.18	0.50	8.5%		
13	Mean				2.30	\$235,862	\$251,075	\$716,214	\$709,613	3.08	0.57	10.7%		
14	Truncated Average													

Note:  
 \* Followed by Value Line Investment Survey

Sources:  
 Current price = Closing price quoted in the October 24, 2000 edition of The Wall Street Journal  
 12 Month High/Low = Closing price quoted in the October 24, 2000 edition of The Wall Street Journal  
 Market to Book Ratio = Current price divided by book value per share data as of March 31, 2000  
 per Form 10-Q filing with the U.S. Securities and Exchange Commission or annual reports to shareholders  
 Interest Coverage calculated, on a pre-tax basis, as the Times Interest Earned Ratio [(Net Income + Interest Expense) + Interest Expense  
 Beta contained in the Value Line Investment Survey August 4, 2000 Water Utility Industry Analysis & Bloomberg.com, October 24, 2000  
 Total Capitalization and Revenue figures obtained from 1999 Form 10-K's filed with the U.S. Securities and Exchange Commission or  
 annual reports to shareholders  
 ROE obtained from Value Line and Form 10-Q's to the U.S. Securities and Exchange Commission

**RIO VERDE UTILITIES, INC.**

Schedule WAR-8

Docket No. WS-02156A-00-0321 Et Al.

Test Year Ended December 31, 1999

**ECONOMIC INDICATORS  
1990 TO THE PRESENT**

<b>Line No.</b>	<b>[ A ] Year</b>	<b>[ B ] Change in CPI</b>	<b>[ C ] Change in GDP*</b>	<b>[ D ] 3-Month T-Bills</b>	<b>[ E ] Prime Rate</b>	<b>[ F ] 30-Year T-Bonds</b>	<b>[ G ] Dow Jones Ind. Avg.</b>	<b>[ H ] A-Rated Utility Bond Yld.</b>
1	1990	6.1%	1.8%	7.5%	10.0%	8.6%	2,634	10.0%
2	1991	3.1%	-0.5%	5.4%	8.5%	8.1%	3,169	9.3%
3	1992	2.9%	3.0%	3.5%	6.3%	7.7%	3,301	8.5%
4	1993	2.7%	2.7%	3.0%	6.0%	6.6%	3,754	7.5%
5	1994	2.7%	4.0%	4.3%	7.1%	7.4%	3,834	8.3%
6	1995	2.5%	2.7%	5.5%	8.8%	6.9%	5,117	7.8%
7	1996	3.3%	3.6%	5.0%	8.3%	6.7%	6,448	7.8%
8	1997	1.7%	4.4%	5.1%	8.4%	6.6%	7,908	7.7%
9	1998	1.6%	4.4%	4.8%	8.4%	5.6%	9,181	7.0%
10	1999	2.7%	4.2%	5.0%	8.0%	5.9%	11,497	7.6%
11	<b>Current</b>	<b>2.3%</b>	<b>5.3%</b>	<b>6.2%</b>	<b>9.5%</b>	<b>5.8%</b>	<b>10,326</b>	<b>8.2%</b>

**Note:**

\* GDP revised by Bureau of Economic Analysis now uses chained 1992 dollars

**Sources:**

1990 - Current CPI and GDP obtained from the August 2000 edition of Economic Indicators

1990 - 1999 Prime Rate obtained from the August 2000 edition of Economic Indicators

1990 - 1999 DJIA is the year end close from <http://averages.dowjones.com>

1990 - 1999 3-Month T-Bills, Prime Rate and 30-Year T-Bonds obtained from  
<http://www.bog.frb.fed.us/releases/h15/data.htm>

1990 - 1998 Average A-rated Utility Bond Yields obtained from Moody's Public Utility manual 1999

Current 3-Month T-Bill, Prime Rate, 30-Year T-Bond, and DJIA obtained from the  
October 25, 2000 edition of The Wall Street Journal

1999 - Current Average A-Rated Utility Bond Yields obtained from

<http://www.moodys.com/economics.nsf/web/economyd?OpenDocument>, October 27, 2000

**RIO VERDE UTILITIES, INC.**

Docket No. WS-02156A-00-0321 Et Al.

Test Year Ended December 31, 1999

Schedule WAR-9

**PUBLICLY TRADED WATER COMPANIES  
RETURN ON COMMON EQUITY - YEAR END**

Line No.	[A] Name of Company	[B] 1990	[C] 1991	[D] 1992	[E] 1993	[F] 1994	[G] 1995	[H] 1996	[I] 1997	[J] 1998	[K] 1999
1	American States Water *	12.4%	14.0%	13.0%	10.2%	9.5%	10.0%	9.0%	9.2%	9.4%	10.1%
2	American Water Works *	10.3%	12.3%	10.5%	10.9%	10.2%	10.3%	9.6%	10.4%	10.3%	9.0%
3	California Water Service *	12.4%	11.7%	10.4%	12.4%	9.9%	9.9%	12.3%	14.1%	10.8%	11.4%
4	Connecticut Water Service	7.3%	11.7%	11.8%	12.2%	12.2%	12.2%	12.4%	12.3%	12.3%	12.1%
5	E'Town Corporation *	7.3%	11.2%	10.0%	9.9%	7.9%	9.3%	8.2%	9.9%	11.5%	8.5%
6	Middlesex Water	10.3%	11.9%	11.1%	12.2%	11.8%	11.6%	12.9%	13.7%	10.5%	11.0%
7	Philadelphia Suburban *	11.4%	11.9%	9.9%	10.2%	10.3%	11.7%	11.2%	12.0%	12.4%	12.3%
8	SJW Corp.	11.4%	10.9%	18.0%	11.4%	9.5%	10.6%	16.2%	12.0%	11.6%	11.1%
9	York Water Co.	12.8%	12.1%	10.7%	12.4%	11.5%	10.6%	11.1%	10.9%	10.5%	10.3%
10											
11	<b>Maximum</b>	<b>12.8%</b>	<b>14.0%</b>	<b>18.0%</b>	<b>12.4%</b>	<b>12.2%</b>	<b>12.2%</b>	<b>16.2%</b>	<b>14.1%</b>	<b>12.4%</b>	<b>12.3%</b>
12	<b>Minimum</b>	<b>7.3%</b>	<b>10.9%</b>	<b>9.9%</b>	<b>9.9%</b>	<b>7.9%</b>	<b>9.3%</b>	<b>8.2%</b>	<b>9.2%</b>	<b>9.4%</b>	<b>8.5%</b>
13	<b>Mean</b>	<b>10.6%</b>	<b>12.0%</b>	<b>11.7%</b>	<b>11.3%</b>	<b>10.3%</b>	<b>10.7%</b>	<b>11.4%</b>	<b>11.6%</b>	<b>11.0%</b>	<b>10.7%</b>
14	<b>Truncated Average</b>	<b>10.8%</b>	<b>11.8%</b>	<b>11.1%</b>	<b>11.4%</b>	<b>10.4%</b>	<b>10.7%</b>	<b>11.2%</b>	<b>11.6%</b>	<b>11.1%</b>	<b>10.7%</b>

**Note:**

\* Followed by Value Line Investment Survey

**Sources:**

Value Line Investment Survey, August 4, 2000 Water Utility Industry Report

Form 10-K's filed with the U.S. Securities and Exchange Commission

RIO VERDE UTILITIES, INC.

Schedule WAR-10

Docket No. WS-02156A-00-0321 Et Al.

Test Year Ended December 31, 1999

**EARNINGS PER SHARE, DIVIDENDS PER SHARE, AND SUSTAINABLE GROWTH RATES  
TEN YEARS AND FIVE YEARS ENDING 1999**

Line No.	[A] Name of Company	[B] Earnings		[D] Dividends		[F] Sustainable		[G]
		10 year	5 year	10 year	5 year	10 year	5 year	
1	American States Water *	0.53%	2.11%	1.82%	1.42%	2.84%	2.27%	
2	American Water Works *	5.00%	3.66%	9.51%	7.78%	5.39%	4.59%	
3	California Water Service *	3.55%	4.83%	2.54%	1.62%	3.07%	3.38%	
4	Connecticut Water Service	4.88%	1.39%	1.35%	1.37%	1.99%	2.74%	
5	E'Town Corporation *	2.08%	4.04%	0.33%	0.00%	0.80%	1.07%	
6	Middlesex Water	3.12%	2.75%	2.78%	2.27%	1.85%	1.76%	
7	Philadelphia Suburban *	3.54%	1.29%	3.87%	5.53%	2.20%	2.35%	
8	SJW Corp.	7.31%	6.62%	2.64%	2.67%	5.61%	6.52%	
9	York Water Co.	1.44%	2.91%	0.19%	1.42%	0.90%	1.13%	
10								
11	<b>Maximum</b>	<b>7.31%</b>	<b>6.62%</b>	<b>9.51%</b>	<b>7.78%</b>	<b>5.61%</b>	<b>6.52%</b>	
12	<b>Minimum</b>	<b>0.53%</b>	<b>1.29%</b>	<b>0.19%</b>	<b>0.00%</b>	<b>0.80%</b>	<b>1.07%</b>	
13								
14	<b>Average **</b>	<b>3.49%</b>	<b>3.26%</b>	<b>2.78%</b>	<b>2.68%</b>	<b>2.74%</b>	<b>2.87%</b>	
15								
16	<b>Value Line Forecast</b>		<b>6.90%</b>		<b>3.10%</b>			

**Notes:**

\* Followed by Value Line Investment Survey

\*\* Excludes negative results

**RESULTS OF COST OF EQUITY ANALYSIS  
AND STAFF'S RECOMMENDATION**

Line

No.

<u>Method:</u>	<u>Result</u>
1	
2 <b>Comparable Earnings (Return on Common Equity)</b>	
3 Value Line Water Utility Composite 1998	10.9%
4 Value Line Water Utility Composite 1999	10.3%
5 Comparable Publicly Traded Water Utilities 1998	11.1%
6 Comparable Publicly Traded Water Utilities 1999	10.7%
7 Comparable Arizona Water and Wastewater Utilities 1998	11.5%
8 Comparable Arizona Water and Wastewater Utilities 1999	11.5%
9	
10 <b>Publicly Traded Water Utility Companies</b>	
11	
12 <b>Discounted Cash Flow</b>	
	$D_1 \div P_0 + g = K$
13 5 Year DPS Growth & Avg. Stock Price	3.9% + 2.7% = 6.6%
14 10 Year DPS Growth & Avg. Stock Price	3.9% + 2.8% = 6.7%
15 5 Year EPS Growth & Avg. Stock Price	3.9% + 3.3% = 7.2%
16 10 Year EPS Growth & Avg. Stock Price	3.9% + 3.5% = 7.4%
17 5 Year Sust. Growth & Avg. Stock Price	3.9% + 2.9% = 6.8%
18 10 Year Sust. Growth & Avg. Stock Price	3.9% + 2.7% = 6.6%
19 5 Year DPS Growth & Spot Stock Price	3.9% + 2.7% = 6.6%
20 10 Year DPS Growth & Spot Stock Price	3.9% + 2.8% = 6.7%
21 5 Year EPS Growth & Spot Stock Price	3.9% + 3.3% = 7.2%
22 10 Year EPS Growth & Spot Stock Price	3.9% + 3.5% = 7.4%
23 5 Year EPS Sust. & Spot Stock Price	3.9% + 2.9% = 6.8%
24 10 Year EPS Sust. & Spot Stock Price	3.9% + 2.7% = 6.7%
25	
26 <b>DCF Using Value Line's Projected Earnings and Projected Dividend Growth</b>	
27	
28 5 Year DPS Growth & Avg. Stock Price	3.9% + 3.1% = 7.0%
29 5 Year DPS Growth & Spot Stock Price	3.9% + 3.1% = 7.0%
30 5 Year EPS Growth & Avg. Stock Price	4.1% + 6.9% = 11.0%
31 10 Year EPS Growth & Spot Stock Price	4.1% + 6.9% = 11.0%
32	
33 <b>Company Estimate</b>	<b>12.75%</b>
34 <b>Staff Recommendation</b>	<b>11.00%</b>

**RESULTS OF COST OF EQUITY ANALYSIS  
CAPITAL ASSET PRICING MODEL**

Line No.		$R_f$	+	$\beta$	*	$(R_p)$	=	$k$
1	Capital Asset Pricing Model							
2								
3	Short-horizon Cost of Equity - Current	6.2%	+	57.0%		9.4%	=	11.5%
4	Intermediate-horizon Cost of Equity - Current	5.7%	+	57.0%		8.5%	=	10.5%
5	Long-horizon Cost of Equity - Current	5.8%	+	57.0%		8.1%	=	10.4%
6								
7	Short-horizon Cost of Equity - Projected	6.2%	+	57.0%		9.2%	=	11.4%
8	Intermediate-horizon Cost of Equity - Projected	6.0%	+	57.0%		8.2%	=	10.7%
9	Long-horizon Cost of Equity - Projected	5.9%	+	57.0%		7.8%	=	10.3%

**Sources:**

Expected equity risk premium is estimated as the simple difference between the historical arithmetic mean equity return and the historical arithmetic mean on U.S. Treasury Bill total returns (Short-horizon), intermediate-term government bond income returns (Intermediate-horizon), or long-term government Bond income returns (Long-horizon), described in Chapter 9 of the SBBJ 1999 Yearbook, published by Ibbotson Associates.

The Current risk-free rate is the yield to maturity on 90-day U.S. Treasury Bills (Short-horizon), 5-year U.S. Treasury Notes (Intermediate-horizon), or 30-year U.S. Treasury Bonds (Long-horizon), as published in the October 25 edition of the The Wall Street Journal.

The projected risk-free rate is the consensus forecast for the yield on 3-month U.S. Treasury Bills (Short-horizon), 5-year U.S. Treasury Notes (Intermediate-horizon), or 30-year U.S. Treasury Bonds (Long-horizon), Blue Chip Financial Forecasts, October 1, 2000.

**RIO VERDE UTILITIES, INC.**

Schedule WAR-13

Docket No. WS-02156A-00-0321 Et Al.

Test Year Ended December 31, 1999

**FINANCIAL ANALYSIS**

Line No.		[ A ]	[ B ]	[ C ]	[ D ]
		Water Existing Long-Term Debt	Water Company-Proposed Long-Term Debt	Wastewater Existing Long-Term Debt	Wastewater Company-Proposed Long-Term Debt
1	Net income (a) *	\$391,143	\$391,143	\$103,906	\$103,906
2					
3	Depreciation (b)	\$154,158	\$154,158	\$76,889	\$76,889
4					
5	Interest Expense (c)	\$51,779	\$176,624	\$168,681	\$293,526
6					
7	Principal Repayment (d)	\$17,704	\$39,733	\$57,676	\$79,705
8					
9	<b>Times Interest Earned Ratio (TIER)</b>				
10	( a + c ) ÷ c	8.55	3.21	1.62	1.35
11					
12	<b>Debt Service Coverage Ratio (DSC)</b>				
13	( a + b + c ) ÷ ( c + d )	8.59	3.34	1.54	1.27

**Notes:**

• After Tax

**Qualifications of William A. Rigsby**

**EDUCATION:**

University of Phoenix.  
Master of Business Administration, Emphasis in Accounting, 1993

Arizona State University  
College of Business  
Bachelor of Science, Finance, 1990

Mesa Community College  
Associate of Applied Science, Banking and Finance, 1986

Michigan State University  
Institute of Public Utilities  
N.A.R.U.C. Annual Regulatory Studies Program, 1997 & 1999

Florida State University  
Center for Professional Development & Public Service  
N.A.R.U.C. Annual Western Utility Rate School, 1996

**EXPERIENCE:**

Senior Rate Analyst  
Accounting & Rates - Financial Analysis Unit  
Arizona Corporation Commission, Utilities Division  
Phoenix, Arizona  
July 1999 - Present

Senior Rate Analyst  
Utilities Audit Section  
Residential Utility Consumer Office  
Phoenix, Arizona  
December 1997 - July 1999

Utilities Auditor II and III  
Accounting & Rates - Revenue Requirements Analysis Unit  
Arizona Corporation Commission, Utilities Division  
Phoenix, Arizona  
October 1994 - November 1997

Revenue Auditor II  
Arizona Department of Revenue  
Corporate Income Tax Audit Unit  
Phoenix, Arizona  
November 1993 - October 1994

Tax Examiner Technician I  
Arizona Department of Revenue  
Transaction Privilege Tax Audit Unit  
Phoenix, Arizona  
July 1991 - November 1993

RESUME OF RATE CASE AND REGULATORY PARTICIPATION

<u>Utility Company</u>	<u>Docket No.</u>	<u>Type of proceeding</u>
ICR Water Users Association	U-2824-94-389	Original CC&N
Rincon Water Company	U-1723-95-122	Rate Increase
Ash Fork Development Association, Inc.	E-1004-95-124	Rate Increase
Parker Lakeview Estates Homeowners Association, Inc.	U-1853-95-328	Rate Increase
Mirabell Water Company, Inc.	U-2368-95-449	Rate Increase
Bonita Creek Land and Homeowner's Association	U-2195-95-494	Rate Increase
Pineview Land & Water Company	U-1676-96-161	Rate Increase
Pineview Land & Water Company	U-1676-96-352	Financing
Montezuma Estates Property Owners Association	U-2064-96-465	Rate Increase
Houghland Water Company	U-2338-96-603 et al.	Rate Increase
Sunrise Vistas Utilities Company – Water Division	U-2625-97-074	Rate Increase
Sunrise Vistas Utilities Company – Sewer Division	U-2625-97-075	Rate Increase
Holiday Enterprises, Inc. dba Holiday Water Company	U-1896-97-302	Rate Increase
Gardener Water Company	U-2373-97-499	Rate Increase
Cienega Water Company	W-2034-97-473	Rate Increase
Rincon Water Company	W-1723-97-414	Financing/Auth. To Issue Stock
Vail Water Company	W-01651A-97-0539 et al.	Rate Increase
Bermuda Water Company, Inc.	W-01812A-98-0390	Rate Increase
Bella Vista Water Company	W-02465A-98-0458 W-01602A-98-0458	Rate increase
Pima Utility Company	SW-02199A-98-0578	Rate increase

RESUME OF RATE CASE AND REGULATORY PARTICIPATION (Cont.)

<u>Utility Company</u>	<u>Docket No.</u>	<u>Type of proceeding</u>
Pineview Water Company	W-01676A-99-0261	WIFA Financing
I.M. Water Company, Inc.	W-02191A-99-0415	Financing
Marana Water Service, Inc.	W-01493A-99-0398	WIFA Financing
Tonto Hills Utility Company	W-02483A-99-0558	WIFA Financing
New Life Trust, Inc. dba Dateland Utilities	W-03537A-99-0530	Financing
GTE California, Inc.	T-01954B-99-0511	Sale of Assets
Citizens Utilities Rural Company, Inc.	T-01846B-99-0511	Sale of Assets
MCO Properties, Inc.	W-02113A-00-0233	Reorganization
American States Water Company	W-02113A-00-0233	Reorganization
Arizona American Water Company	W-01303A-00-0327	Financing
Arizona Electric Power Cooperative, Inc.	E-01773A-00-0227	Financing
360networks (USA) Inc.	T-03777A-00-0575	Financing