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BEFORE THE ARIZONA CORPORATION COMMISSION

WILLIAM A. MUNDELL
Chairman
JIM IRVIN
Commissioner
MARC SPITZER
Commissioner

IN THE MATTER OF THE APPLICATION OF LITCHFIELD PARK SERVICE COMPANY FOR AN INCREASE IN ITS WATER AND WASTEWATER RATES FOR CUSTOMERS WITHIN MARICOPA COUNTY, ARIZONA

DOCKET NO. W-01427A-01-0487
WS-01428A-01-0487

NOTICE OF FILING SURREBUTTAL TESTIMONY

The Arizona Corporation Commission hereby files the Surrebuttal Testimony of Joel M. Reiker, Brian K. Bozzo, Marlin Scott, Jr. and Roger Nash of the Utilities Division, in the above-referenced matter.

RESPECTFULLY SUBMITTED this 15th day of March, 2002.

Jason D. Gellman
Attorney, Legal Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007
(602) 542-3402

The original and ten (10) copies of the foregoing filed this 15th day of March, 2002, with:

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

Arizona Corporation Commission
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COPIES of the foegoing ~~mailed~~/hand-delivered on this 15th day of March, 2002 to:

Scott Wakefield
Residential Utility Consumer Office
2828 N.Central Avenue, Suite 1200
Phoenix, Arizona 85004

Norman James
Fennemore Craig
3003 N. Central Avenue, Suite 2600
Phoenix, Arizona 85012

William Sullivan
Martinez & Curtis, P.C.
2712 N. 7th Street
Phoenix, Arizona 85006-1090

Richard Sallquist
Sallquist & Drummond
2525 E. Arizona Biltmore Circle, Suite 117
Phoenix, Arizona 85016

Dan Ellis
Litchfield Park Service Company
111 W. Wigwam Blvd.
Litchfield Park, Arizona 85340

Dan L. Neidlinger
Neidlinger & Associates
3020 N. 17th Drive
Phoenix, Arizona 85015

Jim Poulos
9532 East Riggs Road
Sun Lakes, Arizona 85248

Christopher Kempley, Chief Counsel
Legal Division
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, AZ 85007

Ernest Johnson, Director
Utilities Division
ARIZONA COPORATION COMMISSION
1200 West Washington Street
Phoenix, AZ 85007

Dwight D. Nodes, Esq.
Assistant Chief ALJ, Hearing Division
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, AZ 85007

Deborah A. Amaral

Deborah A. Amaral

SURREBUTTAL

TESTIMONY

OF

BRIAN K. BOZZO
ROGER N. NASH
JOEL M. REIKER
MARLIN SCOTT, JR.

DOCKET NOS. W-01427A-01-0487
WS-01428A-01-0487

MARCH 15, 2002

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SURREBUTTAL

TESTIMONY

OF

BRIAN K.BOZZO

SR. RATE ANALYST

UTILITIES DIVISION

MARCH 15, 2002

EXECUTIVE SUMMARY

UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION
LITCHFIELD PARK SERVICE COMPANY

Litchfield Park Service Company ("Company") is an Arizona corporation engaged in the business of providing public utility water and wastewater service exclusively to Arizona customers. This portion of Staff's testimony covers water service.

The Company's original rate application requested an increase in water revenues of \$875,603, a 52.0 percent increase over its Test Year revenue of \$1,683,603. Staff recommended a \$603,092 increase in the revenue requirement, a 35.8 percent increase from Test Year revenue. Staff and the Company's recommended revenue requirements are \$2,286,695 and \$2,559,440, respectively.

The Company's rebuttal testimony addressed the following main points from Staff's direct testimony.

1. Cost of Capital / Capital Structure.
2. Construction Work in Progress ("CWIP").
3. Merit Pay.
4. Suncor Overhead Charges.
5. Property Taxes.
6. Water Testing Expenses.
7. Rate Design Issues

These items are addressed individually in this portion of Staff's testimony with the exception of cost of capital and water testing expense. The cost of capital issue is addressed in the surrebuttal testimony of Mr. Joel M. Reiker. The water testing expense is addressed in the surrebuttal testimony of Mr. Marlin Scott, Jr. My surrebuttal testimony makes no adjustment to its position offered in its direct testimony.

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INTRODUCTION

Q. Please state your name and business address.

A. My name is Brian K. Bozzo, my business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Are you the same Brian K. Bozzo who filed direct testimony on behalf of Staff in this case?

A. Yes, I am.

PURPOSE OF TESTIMONY

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

A. The purpose of my testimony is to present Staff's analysis and recommendations concerning Litchfield Park Service Company ("LPSCO" or "Company") rate case rebuttal testimony. Further, my testimony rectifies a computer error in calculating the water division rate base in Staff's direct testimony.

Q. Has Staff modified any of its recommendations outlined in its February 5, 2002, direct testimony as a result of reviewing the Company's rebuttal testimony and schedules?

A. Yes. Staff is accepting the Company's property tax calculation methodology.

Q. Please discuss the recalculation of the LPSCO water division rate base.

A. Staff's calculation in its direct testimony did not include the reduction of the $572,129 net CIAC amount. This resulted in a rate base figure of $6,482,104, shown on Schedule BB-2, which was overstated. It was Staff's intention to reduce the rate base by the amount of the net CIAC. By omission only, this reduction to rate base was not reflected in Staff's direct testimony. Staff's corrected rate base is $5,909,975.

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SUMMARY OF COMPANY'S REBUTTAL TESTIMONY

Q. Please summarize the major issues in the Company's rebuttal testimony.

A. The Company's rebuttal testimony discusses the following major issues:

1. Cost of Capital / Capital Structure.
2. Construction Work in Progress ("CWIP").
3. Merit Pay.
4 Suncor Overhead Charges.
5. Property Taxes.
6. Water Testing Expenses.
7. Rate Design.

Q. Please explain how Staff organized its surrebuttal testimony.

A. Staff based its surrebuttal testimony on LPSCO's main rebuttal points to Staff's direct testimony and has made comments accordingly. The Water Testing expense item (number 6 above) is addressed in the surrebuttal testimony of Mr. Marlin Scott, Jr. The rate of return item (number 1 above) is addressed in the surrebuttal testimony of Mr. Joel M. Reiker. It should not be concluded that Staff is in agreement with any issue that is not covered in this surrebuttal testimony.

CONSTRUCTION WORK IN PROGRESS ("CWIP")/POST TEST-YEAR PLANT

Q. Please explain the Company's position on the issue of CWIP.

A. The Company's position on water CWIP is that the well is currently serving customers and is a vital and necessary production source for current customers.

Q. Do you consider the above issue to be a CWIP issue?

A. No. The Company's CWIP issue is more properly classified as a post test-year plant issue because the well was booked as plant in service after the test year. Therefore, the issue is whether or not to include this post test-year plant in rate base.

Q. Does Staff 's surrebuttal testimony include the post test year plant in its rate base?

A. No. Staff has not modified its position on excluding the post test year plant from rate base. No party submitted the necessary information to include this plant in time for this surrebuttal testimony.

MERIT (INCENTIVE) PAY

Q. Has the Company discussed merit pay and incentive pay issues in its rebuttal testimony?

A. Yes. Mr. Ellis discussed both the "Merit Pay" issue to the Salaries and Wages account and the "Incentive Pay" issue to Contractual Services (Outside Services – Operations & Maintenance). They are listed under the merit (incentive) pay section on page 12 of his rebuttal testimony.

Q. Has Staff modified its position on these "merit pay" and "incentive" issues as a result of the Company's rebuttal testimony?

A. No. Staff's position remains that the Company has not met the burden of proof regarding merit pay, since no evidence was presented that merit pay benefits rate payers. As discussed on page 13, line 24 of Staff's direct testimony:

> "The Company claims that the merit pay is saved many times over through its associated efficiencies, but the Company admits that it does not take the time or expense to specifically track these savings."

This has not been refuted by the Company.

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Staff has also made no modification to its recommendation on incentive pay (contractual services - Management) associated with LPSCO's agreement with Advanced Energy Strategies, Inc. ("AES"). On page 17 of my direct testimony, I stated that Staff accepted the ongoing, annual fee for management services. Further, I expressed concern that the incentive portion of the contract was not clearly a ratepayer obligation. No evidence was presented in rebuttal testimony to the contrary. Staff continues to classify this as an incentive payment linked to SunCor executive positions, and therefore most appropriately assigned to the shareholders.

SUNCOR OVERHEAD CHARGES

Q. Has Staff modified its position on the SunCor Overhead charges as a result of the Company's rebuttal testimony?

A. No. Staff's position remains that if the Company based its pro forma adjustment on estimated information, then it is not known and measurable for inclusion in the cost of service. And, while the Company rebuttal testimony argues the point as if Staff removed all the Overhead charges, this is not the case. Staff allowed $47,200 of overhead charges, removing only the $10,400 pro forma increase proposed by the Company. Estimated figures are not considered known and measurable.

PROPERTY TAX EXPENSE

Q. Please describe the Company's surrebuttal testimony on property taxes.

A. The company's main point in its rebuttal testimony was that the "additional property taxes associated with the revenue increases" were not recovered under the proposals of the parties.

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Q. Is Staff in agreement with the Company?

A. Yes. Staff agrees with the methodology of the company that property taxes will increase as revenue increases and that this can be addressed in the gross revenue conversion factor.

RATE DESIGN

Q. Did the Company address rate design issues in its rebuttal testimony?

A. Yes. Mr. Neidlinger and Mr. Ellis argued against the necessity for a third commodity tier as proposed in the Staff direct testimony. In addition, there were issues related to a newly amended tariff.

Q. Has Staff modified its third-tier rate design recommendation as a result of the Company's rebuttal testimony?

A. No. The Company indicates that no additional conservation is necessary since the Company is currently meeting its water conservation targets. This represents a very focused viewpoint. Staff views the issue on a broader basis and notes that water conservation is a general goal of the entire State of Arizona. The Company further states Staff's rate design could promote revenue instability. The Company provided no theoretical or empirical evidence to support its statement, however. Staff does not agree that its rate design will result in lower revenue.

Q. Does that conclude your surebuttal testimony?

A. Yes, it does.

BEFORE THE ARIZONA CORPORATION COMMISSION

WILLIAM A. MUNDELL

Chairman

JIM IRVIN

Commissioner

MARC SPITZER

Commissioner

IN THE MATTER OF THE APPLICATION OF LITCHFIELD PARK SERVICE COMPANY FOR AN INCREASE IN ITS WATER AND WASTEWATER RATES FOR CUSTOMERS WITHIN MARICOPA COUNTY, ARIZONA	))))))	DOCKET NOS. W-01427A-01-0487 WS-01428A-01-0487

SURREBUTTAL

TESTIMONY

OF

ROGER NASH

RATE ANALYST III

UTILITIES DIVISION

MARCH 15, 2002

EXECUTIVE SUMMARY

UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION
LITCHFIELD PARK SERVICE COMPANY

Litchfield Park Service Company ("Company") is an Arizona corporation engaged in the business of providing public utility water and wastewater service exclusively to Arizona customers. This portion of Staff's testimony covers wastewater service.

The Company's original rate application requested an increase in sewer revenues of \$721,214, a 39.2 percent increase over its Test Year revenue of \$1,838,388. Staff recommends an increase in revenues of \$194,311 in its surrebuttal testimony, or a 10.6 percent increase from Test Year revenue. Staff and the Company's recommended revenue requirements are \$2,073,699 and \$2,559,512, respectively.

The Company's rebuttal testimony addressed the following main points from Staff's direct testimony.

1. Cost of Capital / Capital Structure.
2. Construction Work in Progress ("CWIP").
3. Merit Pay.
4. Suncor Overhead Charges.
5. Property Taxes.

The above items, with the exception of number 1, are addressed individually in this testimony. Item number 1 is addressed in the surrebuttal testimony of Joel M. Reiker. My surrebuttal testimony makes adjustment to Staff's position on CWIP in its direct testimony.

TABLE OF CONTENTS

INTRODUCTION

Q. Please state your name and business address.

A. My name is Roger Nash, my business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Are you the same Roger Nash who filed direct testimony on behalf of Staff in this case?

A. Yes, I am.

PURPOSE OF TESTIMONY

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

A. The purpose of my testimony is to present Staff's surrebuttal testimony in response to the wastewater rebuttal testimony of Litchfield Park Service Company ("LPSCO" or "Company").

Q. Has Staff modified any of its recommendations as a result of the Company's rebuttal testimony?

A. Yes. Staff is recommending additional plant in service as a result of the Company's rebuttal testimony. Staff is also accepting the Company's proposed methodology regarding property tax calculation.

SUMMARY OF COMPANY'S REBUTTAL TESTIMONY

Q. Please summarize the major issues in the Company's rebuttal testimony.

A. The Company's rebuttal testimony discusses the following major issues:

1. Cost of Capital / Capital Structure.
2. Construction Work in Progress ("CWIP").
3. Merit Pay.
4 Suncor Overhead Charges.
5. Property Taxes.

Q. Please explain how Staff organized its surrebuttal testimony.

A. Staff organized its surrebuttal testimony based on LPSCO's main rebuttal points to Staff's direct testimony. The rate of return item is addressed in the surrebuttal testimony of Mr. Joel M. Reiker. It should not be concluded that Staff is in agreement with any issue that is not covered in its surrebuttal testimony.

ADDITIONAL PLANT IN SERVICE

Q. Please explain the Company's position on the issue of CWIP.

A. The Company's position on sewer CWIP is that the line in question was in service and was serving over 100 customers at the end of the Test Year. (See rebuttal testimony of David Ellis, page 4 at 7 to 8.)

The sewer line was booked as CWIP in the Test Year and was reclassified as plant in service after the Test Year. A delay in the reclassification of the sewer line was caused by a canal break, resulting insurance claims, and a related delay in identifying the exact cost of the project.

Q. Do you agree with the Company's CWIP classification?

A. No. The Company's application recorded CWIP in its rate base schedule. In Staff's opinion, the Company should have recorded the sewer line as Plant in Service in the Test Year because the project was completed in November 2000 and a pro forma adjustment to revenues was recorded by the Company in the instant application to recognize additional customers due to the new sewer line.

Q. Does Staff's surrebuttal testimony include the additional plant in rate base?

A. Yes, Staff's surrebuttal schedules reflect additional plant in service of $666,813 and related matching entries.

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MERIT (INCENTIVE) PAY

Q. Has the Company discussed merit pay and incentive pay issues in its rebuttal testimony?

A. Yes. Mr. Ellis discusses both the "Merit Pay" issue to the Salaries and Wages account and the "Incentive Pay" issue to Contractual Services (Outside Services – Operations & Maintenance). They are listed under the merit (incentive) pay section on page 12 of his rebuttal testimony.

Q. Has Staff modified its position on these "merit pay" and "incentive" issues as a result of the Company's rebuttal testimony?

A. No. Staff's position remains that the Company has not met the burden of proof regarding merit pay, since no evidence was presented that merit pay benefits rate payers. As discussed on page 13, line 24 of Staff's direct testimony:

> "The Company claims that the merit pay is saved many times over through its associated efficiencies, but the Company admits that it does not take the time or expense to specifically track these savings."

This has not been refuted by the Company.

Staff has also made no modification to its recommendation on incentive pay (contractual services - Management) associated with LPSCO's agreement with Advanced Energy Strategies, Inc. ("AES"). On page 17 of Mr. Bozzo's direct testimony, he stated that Staff accepted the ongoing, annual fee for management services. Further, he expressed concern that the incentive portion of the contract was not clearly a ratepayer obligation. No evidence was presented in rebuttal testimony to the contrary. Staff continues to classify this as an incentive payment linked to SunCor executive positions, and therefore most appropriately assigned to the shareholders.

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SUNCOR OVERHEAD CHARGES

Q. Has Staff modified its position on the SunCor Overhead charges as a result of the Company's rebuttal testimony?

A. No. Staff's position remains that if the Company based its pro forma adjustment on estimated information, then it is not known and measurable for inclusion in the cost of service. Staff allowed $11,800 of overhead charges. Estimated figures are not considered known and measurable.

PROPERTY TAX EXPENSE

Q. Is Staff in agreement with the Company?

A. Yes. Staff agrees with the methodology of the company that property taxes will increase as revenue increases and that this can be addressed in the gross revenue conversion factor.

Q. Does that conclude your surrebuttal testimony?

A. Yes, it does.

LITCHFIELD PARK SERVICE COMPANY
SEWER DIVISION
DOCKET NO. WS-01428A-01-0487 & W-01427A-01-0487

Surrebuttal Schedule RDN - 1

COMPUTATION OF INCREASE IN
GROSS REVENUE REQUIREMENTS

LINE NO.	DESCRIPTION	AMOUNT
1	Adjusted Rate Base	$ 9,177,372
2	Adjusted Operating Income	599,203
3	Current Rate of Return	6.53%
4	Required Rate of Return	7.80%
5	Required Operating Income	715,835
6	Operating Income Deficiency	116,632
7	Gross Revenue Conversion Factor	1.6660
8	Increase in Gross Revenue Requirements	194,311
9	Adjusted Test Year Revenue	1,879,388
10	Revenue Requirement	$2,073,699

LITCHFIELD PARK SERVICE COMPANY
SEWER DIVISION
DOCKET NO. WS-01428A-01-0487 & W-01427A-01-0487

SURREBUTTAL
SCHEDULE RDN - 2

SUMMARY OF FILING

		[A]	[B]	[C]	[D]
		Present Rates		Proposed Rates	
LINE NO.	DESCRIPTION	Company as Filed	Staff Adjusted	Company as Filed	Staff Adjusted
	Revenues:				
1	Sewer Sales	$ 1,810,447	$ 1,810,447	$ 2,531,661	$ 1,994,148
2	Effluent Sales	26,342	26,342	26,342	26,342
3	Other Operating Income	1,509	42,599	1,509	53,209
4	Total Operating Revenue	$ 1,838,298	$ 1,879,388	$ 2,559,512	$ 2,073,699
5	Operating Expenses:				
6	Operation & Maintenance	$ 696,534	$ 679,040	$ 696,534	$ 679,040
7	Depreciation	295,749	287,616	295,749	287,616
8	Taxes Other than Income	128,913	93,215	128,913	101,766
9	Income Tax	260,171	216,123	260,171	289,441
10	Total Operating Expenses	$ 1,381,367	$ 1,275,994	$ 1,381,367	$ 1,357,863
11	**OPERATING INCOME (LOSS)**	$ 456,931	$ 603,394	$ 1,178,145	$ 715,836
12	Rate Base - O.C.R.B.	$ 9,313,524	$ 9,177,372	$ 9,313,524	$ 9,177,372
13	Rate of Retun on O.C.R.B.	4.91%	6.57%	12.65%	7.80%
14	Required Operating Income	NA	NA	$ 1,178,145	$ 715,836

LITCHFIELD PARK SERVICE COMPANY
SEWER DIVISION
DOCKET NO. WS-0428A-01-0487 & W-01427A-01-0487

SURREBUTTAL
SCHEDULE RDN-3

ORIGINAL COST RATE BASE

		[A]	[B]		[C]
		ORIGINAL COST			
LINE NO	DESCRIPTION	COMPANY AS FILED	STAFF ADJUSTMENTS	REF	STAFF AS ADJUSTED
1	Gross Utility Plant in Service	$ 9,110,164	3,300,241	1,2	$ 12,410,405
2	Less:				
3	Accumulated Depreciation	758,143	622,885	3	1,381,028
4	Net Utility Plant in Service	8,352,021	$ 2,677,356		$ 11,029,377
	Less:				
5	Contribution In Aid of Construction	0	2,070,191		2,070,191
6	Less Amortization of CIAC	0	488,918		488,918
7	Net CIAC	0	1,581,273		1,581,273
	Less:				
8	Advances In Aid of Construction	0	0		0
9	Deferred Income Taxes	353,513			353,513
10	Total Deductions	353,513	1,581,273		1,934,786
	Plus:				
11	CWIP	1,230,049	(1,230,049)	4	0
12	Allowance for Working Capital	84,968	(2,187)	5	82,781
13	Total Rate Base	$ 9,313,525	$ (136,153)		$ 9,177,372

LITCHFIELD PARK SERVICE COMPANY
SEWER DIVISION
DOCKET NO. WS-01428A-01-0487 & W-01427A-01-0487

SURREBUTTAL
SCHEDULE RDN-4

UTILITY PLANT IN SERVICE

LINE NO.	DESCRIPTION	Company as Filed	Staff Adjustments	REF	Staff as Adjusted
1	Land	0			
2	Collection Sewers	$3,654,748	$1,791,718	1	$5,446,466
3	Service to Customers - Laterals		1,508,523	2,3	1,508,523
4	Lift Stations	555,956			555,956
5	Collection Sewers - Reserve	-			0
6	Effluent Lines	370,964			370,964
7	Outfall Sewer Lines	-			0
8	Flow Measuring Devices	11,020			11,020
9	Power Generation Equipment	21,372			21,372
10	Tools & Shop Equipment	5,508			5,508
11	Office Furniture a& Equipment	29,621			29,621
12	Transportation Equipment	225			225
13	Other Sewer Plant & Equipment(capacity)	4,460,750			4,460,750
14	Total Gross Utility Plant in Service	$ 9,110,164	$3,300,241		$12,410,405

LITCHFIELD PARK SERVICE COMPANY
SEWER DIVISION
DOCKET NO. WS-01428A-01-0487 & W-01427A-01-0487

SURREBUTTAL
SCHEDULE RDN - 6

STATEMENT OF OPERATING INCOME

LINE NO.	DESCRIPTION	PRESENT RATES COMPANY AS FILED	PRESENT RATES STAFF ADJ.	REF	PRESENT RATES STAFF ADJUSTED	PROPOSED RATES COMPANY AS FILED	PROPOSED RATES STAFF ADJ.	REF	PROPOSED RATES STAFF ADJUSTED
1	Operating Revenues:								
2	Sewer Service Revenues	$ 1,810,447			$ 1,810,447	$ 2,531,661	$ (537,513)		1,994,148
3	Effluent Sales	26,342			26,342	26,342			26,342
4	Other Sewer Revenues	1,509	41,090	1	42,599	1,509	51,700		53,209
5	Total Operating Revenue	1,838,298	41,090		1,879,388	2,559,512	(485,813)		2,073,699
	Operating Expenses:								
6	Salaries & Wages	71,566	(8,051)	3,4	63,515	71,566	(8,051)		63,515
7	Employee Benefits	18,908	0		18,908	18,908	0		18,908
8	Purchased Power	25,186	(0)		25,186	25,186	(0)		25,186
9	Purchased Wastewater Treatment	385,980	0		385,980	385,980	0		385,980
10	Outside Services - Legal & Engineering	13,224	0		13,224	13,224	0		13,224
11	Outside Services - Operations & Maint.	94,089	(6,844)	4,5	87,245	94,089	(6,844)		87,245
12	Rental Expense	22,289	0		22,289	22,289	0		22,289
13	Materials & Supplies	34,913	(0)		34,913	34,913	(0)		34,913
14	General & Administrative	30,379	(2,600)	4	27,779	30,379	(2,600)		27,779
15	Depreciation & Amortization	295,749	(8,133)	6	287,616	295,749	(8,133)		287,616
16	Property Taxes	128,913	(31,507)	7	97,406	128,913	(27,147)		101,766
17	Income Taxes	260,171	(44,048)	8	216,123	260,171	29,270		289,441
18	Total Operating Expenses	1,381,367	(101,182)		1,280,185	1,381,367	(23,504)		1,357,863
19	Operating Income	$ 456,931	$ 142,272		$ 599,203	$ 1,178,145	$ (462,309)		$ 715,836

BEFORE THE ARIZONA CORPORATION COMMISSION

WILLIAM A. MUNDELL
Chairman
JIM IRVIN
Commissioner
MARC SPITZER
Commissioner

IN THE MATTER OF THE APPLICATION OF) LITCHFIELD PARK SERVICE COMPANY FOR) AN INCREASE IN ITS WATER AND) WASTEWATER RATES FOR CUSTOMERS) WITHIN MARICOPA COUNTY, ARIZONA)	DOCKET NOS. W-01427A-01-0487 WS-01428A-01-0487

SURREBUTTAL

TESTIMONY

OF

JOEL M. REIKER

SENIOR ANALYST

UTILITIES DIVISION

MARCH 15, 2002

EXECUTIVE SUMMARY
OF THE SURREBUTTAL TESTIMONY
OF STAFF WITNESS
JOEL M. REIKER
LITCHFIELD PARK SERVICE COMPANY
DOCKET NOS. W-01427A-01-0487 & WS-01428A-01-0487

The surrebuttal testimony of Staff witness Joel M. Reiker addresses the following issues:

Updated Cost of Equity Estimates – Staff provides updated cost of equity estimates, which reflect more recent information available to investors. Staff's updated cost of equity estimates show that the cost of equity to the water utility industry has not changed significantly since the filing of his direct testimony.

Response to the Rebuttal testimony of Mr. Dan L. Neidlinger – Staff responds to the criticisms of its direct testimony contained in the rebuttal testimony of company witness Mr. Dan L. Neidlinger. Specifically, Staff addresses the issues of capital structure and the cost of equity.

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SCHEDULES

INTRODUCTION

Q. Please state your name and business address.

A. My name is Joel M. Reiker. My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Are you the same Joel M. Reiker who previously filed direct testimony in this proceeding?

A. Yes.

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to present Staff's updated cost of capital estimates. I also respond to criticisms of my direct testimony contained in the rebuttal testimony of company witness Mr. Neidlinger.

UPDATED COST OF EQUITY ESTIMATES

Q. Why are you updating your cost of equity estimates?

A. I am updating Staff's cost of equity estimates to reflect the most recent capital market information. The efficient markets hypothesis states that current prices reflect all publicly available information. Therefore, the most recent stock prices and Treasury yields should include investors' most recent expectations of returns. These updates provide a range of appropriate and recent data on which the Commission can base a decision.

Updated Constant-Growth DCF Estimate

Q. How did you update Staff's constant-growth DCF estimates?

A. I updated the stock prices of the sample water companies to reflect prices after the close of the market on February 26, 2002, as reported by Yahoo Finance. This information is shown on Schedule JMR-S5. I also updated the *Value Line* projections of earnings per share ("EPS"), dividends per share ("DPS"), and retention growth to reflect data from the February 1, 2002, edition. This information is shown in Schedules JMR-S2 and JMR-S3.

Q. What is the result of Staff's updated constant-growth DCF analysis?

A. Schedule JMR-S8 depicts the result of Staff's updated constant-growth DCF analysis. Table 1 shows Staff's updated constant-growth DCF estimate along with Staff's original constant-growth DCF estimate:

Table 1

Sample Water Companies	**Direct Testimony**	**Updated Estimate**
Constant-Growth DCF estimate	8.55%	8.71%

As shown in Table 1 above, Staff's constant-growth DCF estimate of the cost of equity to the sample water companies has increased 16 basis points since the filing of Staff's direct testimony.

Updated Multi-Stage DCF Estimate

Q. How did you update Staff's multi-stage DCF estimates?

A. I updated the stock prices of the sample water companies to reflect prices after the close of the market on February 26, 2002, as reported by Yahoo Finance. I also updated my stage-1 growth rate to reflect *Value Line* DPS projections contained in the February 1, 2002, edition. This information is shown in Schedule JMR-S7.

Q. What is the result of Staff's updated multi-stage DCF analysis?

A. Schedule JMR-S7 depicts the result of Staff's updated multi-stage DCF analysis. Table 2 shows Staff's updated multi-stage DCF estimate along with Staff's original multi-stage DCF estimate:

Table 2

Sample Water Companies	Direct Testimony	Updated Estimate
Multi-Stage DCF estimate	9.35%	9.39%

As shown in Table 2 above, Staff's multi-stage DCF estimate of the cost of equity to the sample water companies has increased 4 basis points since the filing of its direct testimony.

Updated CAPM Estimates

Q. How did you update your CAPM estimates?

A. I updated the risk-free rate, the current market risk premium, and beta. This information is reflected in Schedule JMR-S8.

Staff's updated risk-free rate is simply the average of spot yields on 5-, 7-, and 10-year U.S. Treasuries, as reported in the February 27, 2002, edition of *The Wall Street Journal.*[1] Staff's updated current market risk premium was calculated in the same manner as in Staff's direct testimony, using the February 22, 2002, edition of *Value Line.*[2]

Q. What are the results of Staff's updated CAPM analysis?

A. Schedule JMR-S8 depicts the results of my updated CAPM analysis. The following table shows Staff's updated CAPM estimates along with Staff's original CAPM estimates:

[1] Average yield on 5-, 7-, and 10-year Treasury notes according to the February 27, 2002, *The Wall Street Journal*: 4.41%, 4.77%, and 4.92%, respectively.

[2] According to the February 22, 2002 edition of *Value Line*, the expected dividend yield is 1.8% and the expected annual growth in share price is 12.47% (60% 3-5 yr. appreciation potential: $1.60^{1/4} - 1 = 12.47\%$) The long-term Treasury rate used in this calculation is 5.42%, according to the February 26, 2002 edition of *The Wall Street Journal*.

Table 3

Sample Gas Companies	Direct Testimony	Updated Estimate
Historical Market Risk Premium	9.27%	8.90%
Current Market Risk Premium	10.00%	9.49%
Average	**9.64%**	**9.20%**

As shown in the above table, Staff's CAPM estimates of the cost of equity to the sample water companies have, on average, decreased approximately 44 basis points since the filing of its direct testimony.

Summary of Updated Cost of Equity Estimates

Q. Please summarize Staff's updated cost of equity estimates.

A. Staff's updated cost of equity estimates are presented in the following table:

Table 4

Method	Estimate
Updated constant-growth DCF estimate	8.71%
Updated multi-stage DCF estimate	9.39%
Updated CAPM estimate	9.20%
Average	**9.10%**

Updated ROE Recommendation

Q. What is Staff's updated ROE recommendation?

A. The overall average of Staff's cost of equity estimates has decreased 8 basis points. Because this change is insignificant, Staff continues to recommend a 9.20 percent ROE for Litchfield.

RATE OF RETURN RECOMMENDATION

Q. Please summarize Staff's overall rate of return ("ROR") recommendation for Litchfield.

A. Staff's ROR recommendation for Litchfield continues to be 7.80 percent, as shown in Schedule JMR-S9 and the following table:

Table 5

	Percent	Cost	Weighted Cost
Debt	45.48%	6.12%	2.78%
Equity	54.52%	9.20%	5.02%
Total			**7.80%**

RESPONSE TO THE REBUTTAL TESTIMONY OF DAN L. NEIDLINGER

Capital Structure

Q. Mr. Neidlinger states that the appropriate capital structure for ratemaking in this case is the Company's December 31, 2000, capital structure, which consisted of 25.74 percent debt and 74.26 percent equity. (See rebuttal testimony of Dan L. Neidlinger. p. 2.) Is he correct?

A. No. The Company's capital structure has changed significantly since December 31, 2000, and is therefore irrelevant for the purpose of determining the Company's current cost of capital on a going-forward basis. The more appropriate capital structure to use in this case is the actual (most current) capital structure.

Q. Why is it appropriate to use the most current capital structure when determining the cost of capital?

A. It is appropriate to use the most current capital structure because financial decisions are made on the basis of judgement of present and future conditions, not the past.[3] Factors such as market conditions, the availability of funds, and the financial condition of the

[3] Philips. C. *The Regulation of Public Utilities*. Public Utilities Reports Inc. Arlington, VA. p. 370.

company are constantly changing.[4] Therefore, it makes no sense to apply a forward-looking cost of equity to a backward-looking capital structure when calculating the current weighed average cost of capital ("WACC") and in calculating the required profit on a going-forward basis.

Q. Can the use of an outdated capital structure harm ratepayers?

A. Yes. When an outdated capital structure that is significantly different than a company's current capital structure is used to set rates, either the utility or ratepayers may be harmed. Exhibit 1 is a hypothetical example of how ratepayers are harmed when rates are set using a historical test year capital structure and the utility's equity ratio decreases significantly after the end of the test year. The top portion of the exhibit (lines 2-5) shows the calculation of the hypothetical utility's WACC under a historical test year capital structure consisting of 25 percent debt and 75 percent equity. The overall WACC, or allowed rate of return, under this scenario is 7.25 percent. When we gross-up for taxes the 7.25 percent allowed rate of return, we arrive at a grossed-up rate of return of 11.02 percent. When applied to our rate base of $15 million, the resulting revenue requirement is $1,653,240.

The bottom portion of Exhibit 1 (lines 9-12) shows the calculation of the hypothetical utility's WACC using its actual current capital structure. The hypothetical utility's WACC remains at 7.25 percent, however, its capital structure is now 50 percent debt and 50 percent equity.[5] When we gross-up for taxes our 7.25 percent allowed rate of return under this scenario, we arrive at a grossed-up rate of return of 10.24 percent. When applied to our rate base of $15 million, the resulting revenue requirement is $1,535,378 -- $117,862 *lower* than if we had used the historical test year capital structure.

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[4] Philips, C. *The Regulation of Public Utilities*. Public Utilities Reports Inc. Arlington, VA. p. 398

[5] As the hypothetical utility's equity ratio decreased from 75% to 50% its cost of equity increased from 8.00% to 9.50%. This is because financial risk has increased. The effect of changes in financial risk on the cost of equity are discussed shortly.

In the above situation, the hypothetical utility will receive higher rates than it requires if rates are set using a historical test year capital structure as opposed to the most current capital structure. Alternatively, the hypothetical utility would be harmed if rates were set using a historical test year capital structure and the equity ratio subsequently *increased.*

Q. Does the Company's proposed capital structure reflect its true financial condition?

A. No. The Company's proposed capital structure has an equity ratio of approximately 74 percent. The Company's true equity ratio is somewhere in the range of 50 – 60 percent. Therefore, Litchfield's actual level of financial risk is somewhat higher than what its proposed capital structure reflects.

Q. What is the relationship between capital structure, financial risk, and the cost of equity?

A. As a firm's equity ratio decreases, its financial risk increases. A greater level of financial risk equates to a higher cost of equity.

Q. How would Staff's recommended ROE be affected if the Commission adopted the Company's proposed capital structure of 25.74 percent debt and 74.26 percent equity?

A. Staff would recommend a lower ROE because of lower financial risk. As was mentioned in Staff's direct testimony, Staff's recommended capital structure of 45.48 percent debt and 54.52 percent equity is similar to that of the sample water companies in Staff's analysis. Therefore, the levels of financial risk are similar. The Company's proposed capital structure of 25.74 percent debt and 74.26 percent equity reflects a lower level of financial risk compared to Staff's recommended capital structure and the sample water companies. This lower level of financial risk equates to a lower cost of equity. Therefore, if the Commission decides to adopt the Company's proposed capital structure of 25.74 percent debt and 74.26 percent equity, Staff recommends that a corresponding adjustment be made to the allowed ROE.

Q. What ROE does Staff recommend the Commission authorize should it decide to apply the Company's proposed capital structure of 25.74 percent debt and 74.26 percent equity?

A. If the Commission decides to apply the Company's proposed capital structure, Staff recommends that an 8.7 percent ROE be authorized. This is consistent with the lower end of Staff's range of equity cost estimates of 8.71 percent to 9.40 percent.

The Cost of Equity

Q. How does Staff respond to Mr. Neidlinger's statement that Staff has not given proper consideration to either investors' expectations or the financial and business risks that are unique to Litchfield? (See rebuttal testimony of Dan L. Neidlinger. p. 6.)

A. As was stated in Staff's direct testimony, Staff did not adjust its ROE recommendation to account for financial risk because Staff's recommended capital structure for Litchfield reflects a similar level of financial risk as Staff's sample water companies. Staff has accounted for the business risks associated with the nature of water/wastewater operations in its selection of proxy companies. To the extent that Litchfield faces any risks that are unique to it or perhaps its direct competitors, they are unsystematic and of no concern to rational investors.

Q. Why are rational investors not concerned with unsystematic risk?

A. Rational investors do not care about unsystematic risk because they hold diversified portfolios. Unsystematic risks wash out of diversified portfolios; therefore, investors do not require additional return for them. Additionally, investors who choose to be less than fully diversified will not be compensated for unique risks.[6] This is known as Modern Portfolio Theory ("MPT"). MPT is widely accepted in the financial world and gained added respectability in 1990 when the Nobel Prize in Economic Sciences was awarded to

[6] Harrington, Diana R. *Modern Portfolio Theory, the Capital Asset Pricing Model, and Arbitrage Pricing Theory: A User's Guide*. Prentice-Hall, Inc., Englewood Cliffs, New Jersey. 1987. p. 16.

Harry. M. Markowitz, Merton H. Miller, and William F. Sharpe for their work on the concept.

Q. In stating that Staff has not given proper consideration to investors' expectations Mr. Neidlinger cites *Value Line*'s forecast of the [2004-2006] accounting ROE for the water utility industry of 11.5 percent (See rebuttal testimony of Dan L. Neidlinger. p. 6.) Is there a problem with relying on past or projected accounting ROE's when estimating the cost of equity?

A. Yes. The problem with relying on past or projected *accounting ROE's* (also known as the comparable earnings method) is that they are not indicative of the *cost of equity* when the market-to-book ratio is greater than 1.0. In Staff's direct testimony it was indicated that the average market-to-book ratio of the water utility industry is 2.33. Staff also explained that a market-to-book ratio greater than 1.0 indicates that a utility is expected to earn accounting ROE's greater than its cost of equity. To the extent that the cost of equity is a proxy for the utility's allowed ROE, the sample water companies are expected to over-earn and this expectation is incorporated in the *Value Line* forecast. From a theoretical standpoint regulators can be expected to correct the over-earning situation, at least in the long term. This is added to the fact that the particular figure Mr. Neidlinger references is *Value Line*'s furthest projection, and therefore the least reliable. The actual accounting ROE for the water utility industry for 2000 was 9.9 percent according to the February 1, 2002, edition of *Value Line*. Capital costs have declined, not increased, since 2000.

Q. Are there other reasons not to consider *Value Line*'s projected accounting ROE in a comparable earnings analysis?

A. Yes. First, the *Value Line* accounting ROE forecast does not represent investors' expectations. The *Value Line* forecast is simply one analyst's projection of what these companies will record as book earnings on common equity, not market returns.[7] Second, this commission cannot know how any particular *Value Line* analyst arrived at his or her forecast because they are not subject to cross examination in this proceeding. Finally, it is well recognized in financial literature that professional analysts have a strong tendency to be overly optimistic in their forecasts.[8]

Q. Hasn't Staff used *Value Line*'s projected accounting ROE's for the sample water companies in its calculation of projected intrinsic dividend growth?

A. Yes. In estimating the projected intrinsic dividend growth rate for the sample water companies Staff considered *Value Line*'s projection of the accounting ROE for the 2004 – 2006 period. For this purpose, *Value Line*'s projections are the only information readily available. Therefore, Staff's estimate of perpetual dividend growth may be upwardly biased to the extent the sample water companies are expected to over earn. However, Staff's constant-growth DCF analysis also incorporates historical DPS and EPS growth, which hopefully minimize this effect. To this extent, Staff has taken *Value Line*'s projected accounting ROE into consideration.

Q. On page 6 of his rebuttal testimony Mr. Neidlinger states that Staff's ROE recommendation appears to be based solely on the results of its DCF and CAPM estimates without application of any judgement tests. Is there an acceptable standard against which you can measure the reasonableness of Staff's ROE recommendation?

A. Yes. There are three widely accepted criteria that should be met in order for Staff's ROE recommendation to be judged reasonable. They are (1) commensurate risk, (2) financial integrity, and (3) creditworthiness. The commensurate risk standard rests on the notion

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[7] Market returns are defined in terms of *anticipated* dividends and capital gains relative to stock prices, whereas accounting returns are calculated ex post from the income statement and balance sheet.

[8] Dreman, David. "Don't Count on Those Earnings Forecasts." *Forbes*. January 26, 1998. p. 110.
Dreman, David. *Contrarian Investment Strategies: The Next Generation*. Simon & Schuster. New York. p. 98.
Up & Down Wall Street. *Barron's*. May 31, 1999. p. 4.

that the Company's rate of return should be the market rate of return investors anticipate when they purchase equity shares of commensurate risk.[9] Staff's ROE recommendation meets this standard because it is an estimate of what investors can expect to earn by purchasing equity shares in a typical publicly traded water utility. The financial integrity and creditworthiness standards rest on the notion that the rate of return should be sufficient to enable the Company to maintain its credit and attract capital. Staff's ROR recommendation meets this standard because it results in an interest coverage ratio of 3.9, calculated in column G of Schedule JMR-S9. Interest coverage is one of the determinants of a company's bond rating and reflects a company's creditworthiness. According to Standard & Poors 2002 Corporate Ratings Criteria, the median interest coverage ratio for an 'A' rated U.S. electric utility (my most available proxy for a water company) is 3.4.[10]

Q. Does this conclude Staff's surrebuttal testimony?

A. Yes, it does.

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[9] Myers, Stewart C. "The Application of Finance Theory to Public Utility Rate Cases." *Bell Journal of Economics and Management Science*. Spring 1972, p. 62.

[10] http://www.standardandpoors.com/ResourceCenter/RatingsCriteria/CorporateFinance/2002CorporateRatingsCriteria.html

Litchfield Park Service Company
Capital Structures of Sample Water Companies
At September 30, 2001

	[A]	[B]	[C]	[D]	[E]	[F]
Line No.	Company	Ticker Symbol	Long-Term Debt	Preferred Stock	Common Equity	Total
1	American States Water	AWR	49.20%	0.48%	50.32%	100.0%
2	American Water Works	AWK	57.00%	1.21%	41.79%	100.0%
3	California Water Service	CWT	50.59%	0.85%	48.57%	100.0%
4	Connecticut Water Servic	CTWS	47.96%	0.62%	51.42%	100.0%
5	Middlesex Water	MSEX	51.88%	2.58%	45.54%	100.0%
6	Philadelphia Suburban	PSC	52.96%	0.18%	46.86%	100.0%
7	SJW Corp.	SJW	42.35%	0.00%	57.65%	100.0%
8	Southwest Water	SWWC	46.81%	0.51%	52.68%	100.0%
9	Average		49.84%	0.80%	49.35%	100.0%
10	Litchfield Park		45.48%	0.00%	54.52%	100.0%
11						
12						
13						
14						
15						
16						
17	Source: U.S. Securities and Exchange Commission					

Schedule JMR-S1

Litchfield Park Service Company
Growth in Earnings and Dividends
Sample Water Companies

Line No.	[A] Company	[B] '96-'00 Earnings (EPS)	[C] Value Line '98-'00 to '04-'06 Projected Earnings (EPS)	[D] '96-'00 Dividends (DPS)	[E] Value Line '98-'00 to '04-'06 Projected Dividends (DPS)
1	American States Water	4.01%	7.00%	1.20%	2.00%
2	American Water Works	4.77%	10.00%	6.46%	4.50%
3	California Water Service	-4.53%	6.00%	1.32%	1.50%
4	Connecticut Water Service	2.66%	----	1.04%	----
5	Middlesex Water	-2.26%	----	2.61%	----
6	Philadelphia Suburban	11.57%	7.50%	5.58%	5.00%
7	SJW Corp.	-8.72%	----	2.60%	----
8	Southwest Water	24.40%	----	11.13%	----
9					
10	Maximum	24.40%	10.00%	11.13%	5.00%
11	Minimum	-8.72%	6.00%	1.04%	1.50%
12	Average	3.99%	7.63%	3.99%	3.25%
13					
14					
15					
16	Source: Value Line				

Schedule JMR-S2

Litchfield Park Service Company
Calculation of Intrinsic Growth
Sample Water Companies

Line No.	[A] Company	[B] Retention Growth br '96-'00	[C] *Value Line* Projected br '04-'06	[D] Book Value (BV)	[E] Market Price (MP)	[F] v 1-[(BV)/(MP)]	[G] s	[H] Stock Financing Growth vs	[I] '96-'00 Intrinsic Growth br + vs	[J] '04-'06 *Value Line* Projected br + vs
1	American States Water	2.44%	5.50%	19.89	34.15	0.42	3.41%	1.42%	3.86%	6.92%
2	American Water Works	4.60%	7.00%	17.51	43.16	0.59	6.47%	3.85%	8.45%	10.85%
3	California Water Service	3.58%	5.50%	13.09	24.50	0.47	0.31%	0.14%	3.72%	5.64%
4	Connecticut Water Servic	2.92%	--------	9.28	28.13	0.67	1.49%	1.00%	3.92%	--------
5	Middlesex Water	1.36%	--------	14.18	22.78	0.38	6.64%	2.51%	3.87%	--------
6	Philadelphia Suburban	3.98%	5.50%	8.39	23.27	0.64	8.81%	5.63%	9.61%	11.13%
7	SJW Corp.	5.70%	--------	49.17	79.75	0.38	0.00%	0.00%	5.70%	--------
8	Southwest Water	5.64%	--------	5.83	14.04	0.58	0.00%	0.00%	5.64%	--------
9										
10	Maximum								9.61%	11.13%
11	Minimum								3.72%	5.64%
12	Average	3.78%							5.60%	8.64%
13										
14										
15										
16										
17										
18										
19										

20 Book value = average number of shares outstanding divided by common equity as reported 3rd Qtr 2001 10-Q's filed with the SEC.
21 Market Price = Market price after the close of the market as reported by *Yahoo Finance*, February 26, 2002
22 [G] Per Schedule JMR-6

Schedule JMR-S3

Litchfield Park Service Company
Calculation of Expected Infinite Annual Growth in Dividends
Sample Water Companies

Line No.	[A]	[B] g
1	5-Year EPS Growth	3.99%
2	Projected EPS Growth	7.63%
3	5-Year DPS Growth	3.99%
4	Projected DPS Growth	3.25%
5	5-Year Intrinsic Growth	5.60%
6	Projected Intrinsic Growth	8.64%
7		
8	Average	5.51%
9		
10		
11		
12	Per Schedule JMR-2 and Schedule JMR-3	

Schedule JMR-S4

Litchfield Park Service Company
Selected Financial Data of Sample Water Companies

	[A]	[B]	[C]	[D]	[E]	[F]	[G]
Line No.	**Company**	**Symbol**	**Current Mkt Price**	**Book Value**	**Mkt To Book**	***Value Line* Beta**	**Market Cap (mil)**
1	American States Water	AWR	34.15	19.89	1.72	0.60	344
2	American Water Works	AWK	43.16	17.51	2.46	0.50	4,314
3	California Water Service	CWT	24.50	13.09	1.87	0.60	375
4	Connecticut Water Service	CTWS	28.13	9.28	3.03	0.40	210
5	Middlesex Water	MSEX	22.78	14.18	1.61	0.45	173
6	Philadelphia Suburban	PSC	23.27	8.39	2.77	0.60	1,591
7	SJW Corp.	SJW	79.75	49.17	1.62	0.50	242
8	Southwest Water	SWWC	14.04	5.83	2.41	0.45	129
9	Maximum				3.03	0.60	
10	Minimum				1.61	0.40	
11	Average				2.19	0.51	
12							
13							
14							
15							
16							
17							

18 Current price = Market price after the close of the market as reported by *Yahoo Finance*, February 26, 2003

19 Book value = average number of shares outstanding divided by common equity as reported by 10-Q's filed with the SEC.

20 Market Cap according to *Yahoo Finance*

Schedule JMR-S5

Litchfield Park Service Company
Calculation of s Value for Sample Water Companies

Line No.	[A] Company	[B] 2000	[C] 1999	[D] 1998	[E] 1997	[F] 1996	[G] 1995	[H] 1994	[I] s value
1	**American States Water**								
2	common equity		158,846	154,299	151,053	146,766	121,576	118,962	
3	funds from issuing common stock	2,805	-	-	1,472	21,494	-	-	
4	s value	1.77%	0.00%	0.00%	1.00%	17.68%	0.00%		3.41%
5	**American Water Works**								
6	common equity		1,634,798	1,481,611	1,142,416	1,057,874	818,939	733,440	
7	funds from issuing common stock	33,304	41,913	36,227	28,041	189,999	36,383	37,347	
8	s value	2.04%	2.83%	3.17%	2.65%	23.20%	4.96%		6.47%
9	**California Water Service**								
10	common equity		177,182	171,697	164,065	154,226	146,949	144,447	
11	funds from issuing common stock	644	46	-	-	1,434	707	17,741	
12	s value	0.36%	0.03%	0.00%	0.00%	0.98%	0.49%		0.31%
13	**Connecticut Water Service**								
14	common equity		62,495	60,326	56,069	54,395	51,788	47,983	
15	funds from issuing common stock	227	251	280	256	1,136	2,410	1,908	
16	s value	0.36%	0.42%	0.50%	0.47%	2.19%	5.02%		1.49%
17	**Middlesex Water**								
18	common equity		70,489,356	66,729,466	51,225,549	49,215,813	47,643,661	44,851,095	
19	funds from issuing common stock	1,244,972	1,104,469	14,288,456	1,147,418	1,168,122	1,669,171	928,459	
20	s value	1.77%	1.66%	27.89%	2.33%	2.45%	3.72%		6.64%
21	**Philadelphia Suburban**								
22	common equity		367,714	349,868	191,525	176,795	156,976	143,795	
23	funds from issuing common stock	37,190	7,061	32,589	14,258	14,651	9,060	6,916	
24	s value	10.11%	2.02%	17.02%	8.06%	9.33%	6.30%		8.81%
25	**SJW Corp.**								
26	common equity		143,894	143,149	133,553	120,028	108,854	104,098	
27	funds from issuing common stock	-	-	-	-	-	-	-	
28	s value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		0.00%
29	**Southwest Water**								
30	common equity		39,960	34,626	31,910	29,883	28,727	28,002	
31	funds from issuing common stock	-	-	-	-	-	-		
32	s value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		0.00%
33									
34	Average								3.39%
35									
36									
37	Source: Annual Reports to Shareholders and 10-K's filed with the SEC.								
38	http://www.freeedgar.com/								

Schedule JMR-S6

Litchfield Park Service Company
Multi-Stage DCF Estimates
Sample Water Companies

Line No.	[A]	[B] Current Mkt. Price (P_o)	[C] Projected Dividends[1] (stage 1 growth) (D_t)	[D]	[E]	[F]	[G]	[H] Stage 2 growth[2] (g_n)	[I] Equity Cost Estimate (K)
1			2001	2002	2003	2004	2005		
2									
3	**American States Water**	34.15	1.30	1.32	1.35	1.37	1.42	6.63%	9.88%
4	**American Water Works**	43.16	0.94	0.98	1.01	1.05	1.11	6.63%	8.60%
5	**California Water Service**	24.50	1.12	1.14	1.16	1.17	1.20	6.63%	10.48%
6	**Connecticut Water Service**	28.13	-----	-----	-----	-----	-----	6.63%	-----
7	**Middlesex Water**	22.78	-----	-----	-----	-----	-----	6.63%	-----
8	**Philadelphia Suburban**	23.27	0.50	0.53	0.55	0.57	0.60	6.63%	8.61%
9	**SJW Corp.**	79.75	-----	-----	-----	-----	-----	6.63%	-----
10	**Southwest Water**	14.04	-----	-----	-----	-----	-----	6.63%	-----
11									
12								Average	9.39%

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

Where :
P_0 = *current stock price*
D_t = *dividends expected during stage 1*
K = *cost of equity*
n = *years of non − constant growth*
D_n = *dividend expected in year n*
g_n = *constant rate of growth expected after year n*

[1] Projected data not available for companies followed by *The Value Line Expanded Edition*.
[2] Average annual growth in GDP 1929 - 2000 in current dollars. http://www.bea.doc.gov/bea/dn/nipaweb/TableViewFixed.asp#Mid

Litchfield Park Service Company
Results of Cost of Equity Analysis
Sample Water Companies

Line No.	[A]	[B]		[C]		[D]		[E]
	Constant Growth DCF			D_1/P_0	+	g	=	k
1	Constant Growth DCF Estimate			3.20%	+	5.51%	=	8.71%
2								
3								
4	**CAPM Method**	Rf	+	β	x	(Rp)	=	k
5	Historical Market Risk Premium	4.70%	+	0.51	x	8.20%	=	8.90%
6	Current Market Risk Premium	4.70%	+	0.51	x	9.34%	=	9.49%
7								
8								
9								
10						Constant-growth DCF estimate	=	8.71%
11						Mulit-stage DCF estimate	=	9.39%
12						CAPM estimate	=	9.19%
13						Average	=	9.10%

Schedule JMR-S8

Litchfield Park Service Company
Capital Structure
And Weighted Cost of Capital

	[A]	[B]	[C]	[D]	[E]	[F]	[G]
Line No.		**Amount**	**Weight (%)**	**Cost**	**Weighted Cost**	**Gross Rev. Conv. Factor**	**Grossed-up Cost**
1	Long-term Debt	$ 12,835,000	45.48%	6.12%	2.783%	1.0000	2.78%
2	Common Equity	$ 15,388,544	54.52%	9.20%	5.016%	1.6286	8.17%
3		$ 28,223,544	100.00%		7.80%		10.95%
						Interest Coverage (3 ÷ 1)	3.94

How Using a Historical Test Year Capital Structure Could Harm Ratepayers

	[A]	[B]	[C]	[D]		[E]		[F]		[G]		[H]
Line No.		Ratio	Cost	Weighted Cost	x	Gross Rev. Conv. Factor	=	Grossed Up Weighted Cost	x	Rate Base	=	Revenue Req.
1												
2	**Hypothetical Historical Test Year Capital Structure**											
3	Debt	25%	5.00%	1.25%	x	1.0000	=	1.25%	x	$ 15,000,000	=	$ 187,500
4	Equity	75%	8.00%	6.00%	x	1.6286	=	9.77%	x	$ 15,000,000	=	$ 1,465,740
5		100%		7.25%				11.02%	x	$ 15,000,000	=	**$ 1,653,240**
6												
7												
8												
9	**Hypothetical Current Capital Structure**											
10	Debt	50%	5.00%	2.50%	x	1.0000	=	2.50%	x	$ 15,000,000	=	$ 375,000
11	Equity	50%	9.50%	4.75%	x	1.6286	=	7.74%	x	$ 15,000,000	=	$ 1,160,378
12				7.25%				10.24%	x	$ 15,000,000	=	**$ 1,535,378**
13												
14												
15	Over-earning resulting from the use of historical capital structure rather than current capital structure										=	**$ 117,863**

Exhibit 1

BEFORE THE ARIZONA CORPORATION COMMISSION

WILLIAM A. MUNDELL
Chairman
JIM IRVIN
Commissioner
MARC SPITZER
Commissioner

IN THE MATTER OF THE APPLICATION OF LITCHFIELD PARK SERVICE COMPANY FOR AN INCREASE IN ITS WATER AND WASTEWWATER RATES FOR CUSTOMERS WITHIN MARICOPA COUNTY, ARIZONA	DOCKET NOS. W-01427A-01-0487 SW-01428A-01-0487

SURREBUTTAL TESTIMONY

OF

MARLIN SCOTT, JR.

UTILITIES ENGINEER

UTILITIES DIVISION

MARCH 15, 2002

LPSCOsurrebuttal.doc

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SCHEDULE

SURREBUTTAL SUMMARY
OF MARLIN SCOTT, JR.
FOR
LITCHFIELD PARK SERVICE COMPANY
DOCKET NO. W-01427A-01-0487
WATER DIVISION

The surrebuttal testimony of Staff witness Marlin Scott, Jr. addresses the following issue:

Water Testing Cost - Staff has revised its estimated annual water testing cost from $11,087 to $16,385 and recommends that the new figure be adopted.

INTRODUCTION

Q. Please state your name for the record.

A. My name is Marlin Scott, Jr.

Q. Are you the same Marlin Scott, Jr. that filed direct testimony on behalf of Staff on February 5, 2002, in this proceeding?

A. Yes.

Q. What is the purpose of this surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to respond to certain testimony submitted by Litchfield Park Service Company ("LPSCO") concerning Staff's estimated annual water testing cost.

WATER TESTING COST

Q. Have you reviewed LPSCO's testimony by Dave Ellis concerning the water testing cost?

A. Yes. Mr. Ellis disagreed with Staff's recommended annual water testing cost and believed that certain additional testing requirements were omitted.

Q. What is your comment to Mr. Ellis' testimony regarding this testing cost?

A. After further review, I have revised Staff's estimated annual testing costs to reflect, 1) additional sampling for lead & copper monitoring, 2) testing for TCE monitoring, 3) Maricopa County baseline source blending testing for nitrate, 4) additional arsenic blending testing for operation of wells with high arsenic levels, 5) testing for perchlorate, and 6) testing for miscellaneous customer complaints. A revised annual cost breakdown totaling $16,385 is shown in **Revised** Table J – Water Testing Cost on Schedule MSJ – WTC.

. . .

Q. Please explain why each of the above revisions were made?

A. Item #1 was revised to reflect additional lead & copper sampling. Item #2 was an addition to Staff's estimated testing cost to reflect testing for TCE monitoring. Item #3 was an addition to Staff's testing cost to reflect Maricopa County baseline source blending testing for nitrate. Item #4 was an addition to Staff's testing cost to reflect additional arsenic blending testing for the operation of certain wells with high arsenic levels. Item #5 was an addition to Staff's testing cost to reflect testing of perchlorate. Item #6 was an addition to Staff's testing cost to reflect testing for miscellaneous customer complaints.

Q. Does that conclude your surrebuttal testimony?

A. Yes it does.

Revised Table J. Water Testing Cost

MONITORING – 5 wells (Tests per 3 years, unless noted.)	COST PER TEST	NO. OF TESTS (Per 3 years, unless noted.)	3-YEAR COST	ANNUAL COST
Bacteriological - monthly	$15	720	10,800	3,600
Inorganics – Priority Pollutants	$240	5	1,200	400
Radiochemical – per 4 yrs.				
Gross Alpha	$55	12	660	165
Phase II & Phase V:				
Nitrate – Annual	$25	6	150	50
Nitrite – once per period	$15	3	45	15
Asbestos – per 9 yrs.	$180	3	540	60
Inorganics - Ba,F,CN	$87	5	435	145
VOC's	$220	12	2,640	880
Pesticides/PCB's/Unreg./SOC's				
EDB &DBCP	$160	3	480	160
Group 1 – alachlor,etc.	none	---	---	---
Group 2 – aldrin,etc.	$200	3	600	200
Group 3 2,4-D,etc.	$200	3	600	200
Group 4 – Benzo(a)pyrene	$360	3	1,080	360
Group 5 – Benzo(a)pyrene	$180	3	540	180
Trihalomethane	$150	32	4,800	1,600
Glyphosate	$180	9	1,620	540
Endothal	$180	7	1,260	420
Diquat	$180	3	540	180
Dioxin	$600	4	2,400	800
Lead & Copper – annual	$25	210	5,250	1,750
Sulfate – per 5 yrs.	$20	3	60	12
TCE	$155	24	3,720	1,240
Blending Program – Nitrate	$20	60	1,200	400
Blending Program - Arsenic	$14	36	504	168
Perchlorate	$320	24	7,680	2,560
Misc. customer complaint testing	$50	18	900	300
TOTALS			$49,704	$16,385