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BEFORE THE ARIZONA CORPORATION COMMISSION

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COMMISSIONERS

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

2013 NOV 12 P 4 29

AZ CORP COMMISSION
DOCKET CONTROL

ORIGINAL

IN THE MATTER OF THE APPLICATION OF LITCHFIELD PARK SERVICE COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE FAIR VALUE OF ITS UTILITY PLANTS AND PROPERTY AND FOR INCREASES IN ITS WASTEWATER RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE.

DOCKET NO. SW-01428A-13-0042

IN THE MATTER OF THE APPLICATION OF LITCHFIELD PARK SERVICE COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE FAIR VALUE OF ITS UTILITY PLANTS AND PROPERTY AND FOR INCREASES IN ITS WATER RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE.

DOCKET NO. W-01427A-13-0043

STAFF'S NOTICE OF FILING
SURREBUTTAL TESTIMONY

The Utilities Division ("Staff") of the Arizona Corporation Commission ("Commission") hereby files the Surrebuttal Testimony of Staff witnesses Darron W. Carlson, John A. Cassidy and Dorothy M. Hains in the above-referenced matter.

RESPECTFULLY SUBMITTED this 12th day of November, 2013.

Arizona Corporation Commission

DOCKETED

NOV 12 2013

DOCKETED BY

Robin R. Mitchell, Staff Attorney
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Legal Division
Arizona Corporation Commission
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1 Original and thirteen (13) copies
of the foregoing filed this
2 12th day of November, 2013 with:

3 Docket Control
Arizona Corporation Commission
4 1200 West Washington Street
Phoenix, AZ 85006
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6 Copy of the foregoing mailed and/or emailed
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BEFORE THE ARIZONA CORPORATION COMMISSION

BOB STUMP
Chairman
GARY PIERCE
Commissioner
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FOR INCREASES IN ITS WASTEWATER)
RATES AND CHARGES BASED THEREON)
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FOR INCREASES IN ITS WATER)
RATES AND CHARGES BASED THEREON)
FOR UTILITY SERVICE.)

DOCKET NO. W-01428A-13-0043

SURREBUTTAL TESTIMONY OF

DARRON W. CARLSON

PUBLIC UTILITIES ANALYST MANAGER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

NOVEMBER 12, 2013

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**EXECUTIVE SUMMARY
LITCHFIELD PARK SERVICE COMPANY
DOCKET NOS. SW-01427A-13-0042 AND W-01427A-13-0043**

Litchfield Park Service Company ("Company") is an Arizona "C" corporation. Its principal place of business is 12725 W. Indian School Road, Suite D-101, Avondale, Arizona. The Company is engaged in the business of providing water and wastewater utility services in its certificated areas in portions of Maricopa County, Arizona. The Company served approximately 16,800 water customers and 16,160 wastewater customers during the test year ended December 31, 2012.

Water Division

Staff made several adjustments to plant. The fair value rate base was altered but there was little change to Staff's recommended rates in its direct testimony.

Wastewater Division

Staff made several adjustments to plant and an adjustment to water testing expense. The fair value rate base was altered but, again, there was little change to Staff's recommended rates in its direct testimony.

1 **I. INTRODUCTION**

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

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

6
7 **Q. Are you the same Darron Carlson who previously filed direct testimony regarding
8 the revenue requirements and direct testimony regarding rate design in this docket?**

9 A. Yes, I am. I filed direct testimony regarding revenue requirements on September 26,
10 2013, and filed direct testimony regarding rate design on October 4, 2013.

11

12 **II. BACKGROUND**

13 **Q. Please describe the operations of the applicant Litchfield Park Service Company
14 (“LPSCO” or “Company”).**

15 A. LPSCO is an Arizona “C” corporation. Its principle place of business is 12725 West
16 Indian School Road, Suite D-101, Avondale, Arizona. LPSCO is engaged in the business
17 of providing water and wastewater utility services in its certificated areas in portions of
18 Maricopa County, Arizona. The Company served approximately 16,800 water customers
19 and 16,160 wastewater customers during the test year ended December 31, 2012.

20

21 **Q. When were the Company’s current rates approved?**

22 A. The Company’s current rates were approved in Decision No. 72026, dated December 10,
23 2010.

1 **III. PURPOSE FOR SURREBUTTAL TESTIMONY**

2 **Q. What is the purpose of your surrebuttal testimony?**

3 A. The purpose of my surrebuttal testimony is to respond, on behalf of Staff, to the
4 Company's rebuttal testimony. I am responding to issues regarding rate base, revenue
5 requirement, and rate design. Staff witness, Ms. Dorothy Hains will be responding on
6 engineering and technical issues and Staff witness, Mr. John Cassidy will be responding
7 on cost of capital issues.

8
9 Where Staff does not address a specific issue raised by the Company in its rebuttal
10 testimonies, it should not be construed that Staff concedes the issue. Rather, if Staff does
11 not address any specific issue in its surrebuttal testimony that is raised in rebuttal
12 testimony, it relies on its direct testimony.

13
14 Additionally Staff is recommending some adjustments to its rate base in accordance with a
15 supplemental data response filed by the Company on October 4, 2013, in further response
16 to Residential Utility Consumer Office ("RUCO") data request 6.01. Staff had already
17 filed its direct testimony. Further Staff is updating its recommended water testing expense
18 for the Company's Wastewater Division as per Ms. Hains surrebuttal Engineering Report.

19
20 **IV. RESPONSE TO COMPANY WITNESS, MR. CHRISTOPHER KRYGIER'S**
21 **REBUTTAL TESTIMONY**

22 **Q. Please respond to Mr. Krygier's rebuttal testimony.**

23 A. There is only one issue that Mr. Krygier brings up in his rebuttal testimony that requires a
24 Staff response. Mr. Krygier complains that Staff has unfairly singled out the Company in
25 recommending that it be required to respond to the Commission within 60 days of a
26 Decision in this case as to how it will plan to deal with potential deferred income taxes

1 arising from lower state corporate income tax rates effective in 2014, and even lower rates
2 beyond.

3
4 **Q. Has Staff unfairly singled the Company out with its recommendation?**

5 A. No, not at all. In fact, although it has been quite some time since corporate income tax
6 rates have changed, Staff cited a specific previous case in its direct testimony. The
7 Company is the first utility, that Staff is aware of, that is using the new lower state
8 corporate income tax rates in its rate filing.

9
10 **Q. Is Staff recommending that the Company perform unnecessary or burdensome
11 tasks?**

12 A. No not at all. The Company will need to keep track of any deferred income tax issues as a
13 normal part of its bookkeeping. Staff is just recommending that the Company provide the
14 Commission with a plan to deal with the potential refunding of deferred income taxes
15 arising from new lower corporate income tax rates. This was required by the Commission
16 when the federal corporate income tax rates were lowered by the Tax Reform Act of 1986.
17 Staff continues to support its recommendation (DT page 34, lines 14 -18).

18
19 **V. RESPONSE TO COMPANY WITNESS, MR. THOMAS BOURASSA'S
20 REBUTTAL TESTIMONY**

21 **Q. Please respond to Mr. Bourassa's rebuttal testimony.**

22 A. Mr. Bourassa does not really take any specific issue with Staff's positions except to say
23 that he is unclear on various Staff calculations.

1 Q. Has Staff provided the Company with its work papers?

2 A. Yes, to the best of Staff's knowledge, all of Staff's work papers have already been sent to
3 the Company. If anything specific cannot be located, Staff is willing to advise as to where
4 in the work papers that information can be accessed.

5
6 V. STAFF'S SURREBUTTAL TESTIMONY ADJUSTMENTS

7 Q. Please describe Staff's surrebuttal testimony adjustments.

8 A. Staff's surrebuttal testimony adjustments are reflected as follows:

9
10 Water Division

11 Plant adjustments

12	Acct. no. 331 Transmission & Distribution Mains	\$(2,859)
13	Acct. no. 341 Transportation Equipment	\$(55,340)
14	Acct. no. 345 Power Operated Equipment	\$18,003
15	Accumulated Depreciation adjustments	
16	Related to above plant adjustments	\$(46,612)
17	Related to direct testimony plant adj. #6	\$(308)

18
19 Wastewater Division

20 Plant adjustments

21	Acct. no. 389 Other Plant & Misc. Equipment	\$6,193
22	Acct. no. 391 Transportation Equipment	\$(7,110)
23	Accumulated Depreciation adjustment	
24	Related to above plant adjustments	\$(5,406)
25	Water Testing Expense	
26	Altered per Staff rebuttal Engineering Report	\$(23,347)

1 **Q. How did these adjustments change Staff's recommendations between direct and**
2 **surrebuttal testimony?**

3 **A. Staff's recommendations were altered as follows:**

4 <u>Water Division</u>	<u>Direct</u>	<u>Surrebuttal</u>
5 Fair Value Rate Base	\$33,119,464	\$33,125,342
6 Required Revenue Increase	\$1,074,737	\$1,064,885
7 Revenue Requirement	\$12,276,127	\$12,266,275

9 <u>Wastewater Division</u>	<u>Direct</u>	<u>Surrebuttal</u>
10 Fair Value Rate Base	\$23,424,640	\$23,428,440
11 Required Revenue Decrease	\$(57,949)	\$(45,887)
12 Revenue Requirement	\$10,303,654	\$10,315,716

13
14 **VI. RATE DESIGN**

15 **Q. How have the aforementioned adjustments altered Staff's rate design?**

16 **A. The aforementioned adjustments have altered Staff's recommended rate design only**
17 **slightly. The only changes recommended by Staff over its direct testimony rate design is**
18 **to decrease the residential monthly minimum charge by \$0.10 from \$10.00 to \$9.90 for the**
19 **Water Division and to increase the residential monthly flat rate by \$0.05 from \$38.78 to**
20 **\$38.83 for the Wastewater Division.**

21
22 **Q. Where can one see and compare the current, Company-proposed, and Staff-**
23 **recommended rates?**

24 **A. All of these rates can be seen and compared on the attached Surrebuttal Schedules DWC-**
25 **W25 and DWC-WW25.**

26

1 **Q. What is the effect of Staff's recommended rates on the typical residential customer?**

2 A. Staff's recommended rates would decrease the monthly water bill for a typical residential
3 customer using the median of 5,000 gallons by \$1.37 (8.05 percent) from \$17.02 to
4 \$15.65. See Schedule DWC-W26.

5
6 Staff's recommended rates would decrease the monthly wastewater bill for a typical
7 residential customer by \$0.16 (0.41 percent) from \$38.99 to \$38.83. See Schedule DWC-
8 WW26.

9
10 **Q. Does this conclude your surrebuttal testimony?**

11 A. Yes, it does.

Litchfield Park Service Company - Water Division
Docket Nos. W-01428A-13-0043 and SW-01428A-13-0042
Test Year Ended: December 31, 2012

Surrebuttal Testimony of Darron W. Carlson

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REVENUE REQUIREMENT

<u>LINE NO.</u>	<u>DESCRIPTION</u>	(A) COMPANY FAIR VALUE	(B) STAFF FAIR VALUE
1	Adjusted Rate Base	\$ 35,647,602	\$ 33,125,342
2	Adjusted Operating Income (Loss)	\$ 2,024,376	\$ 2,036,449
3	Current Rate of Return (L2 / L1)	5.68%	6.15%
4	Required Rate of Return	9.50%	8.10%
5	Required Operating Income (L4 * L1)	\$ 3,387,127	\$ 2,683,153
6	Operating Income Deficiency (L5 - L2)	\$ 1,362,751	\$ 646,704
7	Gross Revenue Conversion Factor	1.6563	1.6466
8	Required Revenue Increase (L7 * L6)	\$ 2,257,160	\$ 1,064,885
9	Adjusted Test Year Revenue	\$ 11,201,390	\$ 11,201,390
10	Proposed Annual Revenue (L8 + L9)	\$ 13,458,550	\$ 12,266,275
11	Required Increase in Revenue (%)	20.15%	9.51%

References:

Column (A): Company Schedule A-1

Column (B): Staff Schedules DWC-W3 and DWC-W16

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
<u>Calculation of Gross Revenue Conversion Factor:</u>					
1	Revenue	100.0000%			
2	Uncollectible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	39.2701%			
5	Subtotal (L3 - L4)	60.7299%			
6	Revenue Conversion Factor (L1 / L5)	1.646636			
<u>Calculation of Uncollectible Factor:</u>					
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 23)	38.2900%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.7100%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 * L10)	0.0000%			
<u>Calculation of Effective Tax Rate:</u>					
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.5000%			
14	Federal Taxable Income (L12 - L13)	93.5000%			
15	Applicable Federal Income Tax Rate (Line 55)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.7900%			
17	Combined Federal and State Income Tax Rate (L13 + L16)		38.2900%		
<u>Calculation of Effective Property Tax Factor</u>					
18	Unity	100.0000%			
19	Combined Federal and State Income Tax Rate (L17)	38.2900%			
20	One Minus Combined Income Tax Rate (L18-L19)	61.7100%			
21	Property Tax Factor	1.5883%			
22	Effective Property Tax Factor (L20*L21)		0.9801%		
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			39.2701%	
24	Required Operating Income	\$ 2,683,153			
25	Adjusted Test Year Operating Income (Loss)	2,036,449			
26	Required Increase in Operating Income (L24 - L25)		\$ 646,704		
27	Income Taxes on Recommended Revenue (Col. [E], L52)	\$ 1,459,313			
28	Income Taxes on Test Year Revenue (Col. [B], L52)	1,058,045			
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		401,269		
30	Recommended Revenue Requirement	\$ 12,266,275			
31	Uncollectible Rate (Line 10)	0.0000%			
32	Uncollectible Expense on Recommended Revenue (L30*L31)	\$ -			
33	Adjusted Test Year Uncollectible Expense	\$ -			
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32-L33)				
35	Property Tax with Recommended Revenue	\$ 548,085			
36	Property Tax on Test Year Revenue	531,171			
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		16,913		
38	Total Required Increase in Revenue (L26 + L29 + L34 + L37)		\$ 1,064,885		
<u>Calculation of Income Tax:</u>					
39	Revenue	\$ 11,201,390	\$ 1,064,885	\$ 12,266,275	
40	Operating Expenses Excluding Income Taxes	\$ 8,106,896		\$ 8,123,809	
41	Synchronized Interest (L56)	\$ 331,253		\$ 331,253	
42	Arizona Taxable Income (L39 - L40 - L41)	\$ 2,763,240		\$ 3,811,213	
43	Arizona State Income Tax Rate	6.5000%		6.5000%	
44	Arizona Income Tax (L42 x L43)	\$ 179,611		\$ 247,729	
45	Federal Taxable Income (L42 - L44)	\$ 2,583,630		\$ 3,563,484	
46	Federal Tax on First Income Bracket (\$1 - \$50,000) @ 15%	\$ 7,500		\$ 7,500	
47	Federal Tax on Second Income Bracket (\$51,001 - \$75,000) @ 25%	\$ 6,250		\$ 6,250	
48	Federal Tax on Third Income Bracket (\$75,001 - \$100,000) @ 34%	\$ 8,500		\$ 8,500	
49	Federal Tax on Fourth Income Bracket (\$100,001 - \$335,000) @ 39%	\$ 91,650		\$ 91,650	
50	Federal Tax on Fifth Income Bracket (\$335,001 - \$10,000,000) @ 34%	\$ 764,534		\$ 1,097,684	
51	Total Federal Income Tax	\$ 878,434		\$ 1,211,584	
52	Combined Federal and State Income Tax (L44 + L51)	\$ 1,058,045		\$ 1,459,313	
53	Applicable Federal Income Tax Rate [Col. [E], L51 - Col. [B], L51] / [Col. [E], L45 - Col. [B], L45]				34.0000%
<u>Calculation of Interest Synchronization:</u>					
54	Rate Base	\$ 33,125,342			
55	Weighted Average Cost of Debt	1.0000%			
56	Synchronized Interest (L45 X L46)	\$ 331,253			

Litchfield Park Service Company - Water Division
Docket Nos. W-01428A-13-0043 and SW-01428A-13-0042
Test Year Ended: December 31, 2012

Surrebuttal Schedule DWC-W3

RATE BASE - ORIGINAL COST

LINE NO.	(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	(C) STAFF AS ADJUSTED
1	Plant in Service	\$ 91,151,411	\$ 90,867,015
2	Less: Accumulated Depreciation	16,514,086	18,975,484
3	Net Plant in Service	<u>\$ 74,637,325</u>	<u>\$ 71,891,531</u>
4			
5	<u>LESS:</u>		
6			
7	Contributions in Aid of Construction (CIAC)	\$ 7,324,578	\$ 7,425,812
8	Less: Accumulated Amortization	1,489,772	\$ 1,296,248
9	Net CIAC	<u>5,834,806</u>	<u>\$ 6,129,564</u>
10			
11	Advances in Aid of Construction (AIAC)	30,374,274	30,374,274
12			
13	Customer Meter Deposits	1,271,802	1,271,802
14	Customer Deposits	140,147	147,661
15	Deferred Income Tax Credits	1,459,075	(525,120)
16			
17			
18	<u>ADD:</u>		
19			
20			
21	Deferred Regulatory Assets TCE Plume	90,381	686
22			
23	Deffered Regulatory Assets	-	-
24			
25			
26	Original Cost Rate Base	<u>\$ 35,647,602</u>	<u>\$ 33,125,342</u>

References:

Column [A]: Company as Filed
Column [B]: Schedule DWC-W4
Column [C]: Column (A) + Column (B)

SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	(A) COMPANY AS FILED	(B) ADJ.#1 Not Used Ref. Sch JMM-W5	(C) ADJ.#2 Accumulated Depreciation Ref. Sch JMM-W6	(D) ADJ.#3 True-Up of Accruals Ref. Sch JMM-W7	(E) ADJ.#4 Plant Additions Recorded in Wrong Years Ref. Sch JMM-W8	(F) ADJ.#5 Reclassification of Plant Ref. Sch JMM-W9	(G) ADJ.#6 Plant Not Used and Useful Ref. Sch JMM-W10
1		\$ 21,100						
2	301	Organization Cost						
3	302	Franchise Cost						
4	303	Land and Land Rights			(178,617)		(2,776,772)	(6,000)
5	304	Structures and Improvements						(6,156)
6	305	Collecting and Impounding Res.						
7	306	Lake River and Other Intakes			(18,108)		134,878	
8	307	Wells and Springs						
9	308	Infiltration Galleries and Tunnels						
10	309	Supply Mains						
11	310	Power Generation Equipment						
12	311	Electric Pumping Equipment						18,111
13	320.1	Water Treatment Plant						(16,947)
14	320.2	Water Treatment Equipment						1,728,635
15	330.1	Storage Tanks						
16	331	Transmission and Distribution Mains	(2,859)					901,841
17	333	Services						
18	334	Meters						
19	335	Hydrants						
20	336	Backflow Prevention Devices						
21	339	Other Plant and Miscellaneous Equipment						
22	340	Office Furniture and Fixtures						
23	340.1	Computer and Software						
24	341	Transportation Equipment	(55,340)					7,985
25	342	Stores Equipment						
26	343	Tools and Work Equipment						
27	344	Laboratory Equipment						
28	345	Power Operated Equipment	18,003					
29	346	Communications Equipment						
30	347	Miscellaneous Equipment						
31	348	Other Tangible Plant						
32		Total Plant in Service - Sub Total	91,151,411				(9,897)	
33								
34		Total Plant in Service	\$ 91,151,411	\$ (40,196)	\$ (196,725)	\$ 98,151	\$ (12,156)	\$ (12,156)
35		Less: Accumulated Depreciation	16,514,086	(46,612)			(27,948)	(308)
36			\$ 74,637,325	\$ 6,416	\$ (196,725)	\$ (98,151)	\$ 15,792	\$ (11,848)
37		Net Plant in Service						
38								
39		LESS:						
40		Contributions in Aid of Construction (CIAC)						
41		Less: Accumulated Amortization						
42		Net CIAC (L25 - L28)	5,834,806					
43		Advances in Aid of Construction (AIAC)	30,374,274					
44		Customer Meter Deposits	1,271,802					
45		Customer Deposits	140,147					
46		Deferred Income Taxes	1,459,075					
47								
48		ADD:						
49		Deferred Regulatory Assets TCE Plume	90,381					
50		Deferred Regulatory Assets						
51								
52								
53		Original Cost Rate Base	\$ 35,647,802	\$ 7,102	\$ (196,725)	\$ (99,151)	\$ 15,792	\$ (11,848)

RATE BASE ADJUSTMENT NO. 1 - COMPANY'S REBUTTAL ADJUSTMENTS

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
16	331	Transmission and Distribution Mains	\$ 40,259,045	\$ (2,859)	\$ 40,256,186
24	341	Transportation Equipment	\$ 307,592	\$ (55,340)	\$ 252,252
28	345	Power Operated Equipment	-0-	\$ 18,003	\$ 18,003
50	N/A	Deferred Regulatory Asset - TCE Plume	\$ 90,381	\$ 686	\$ 91,067
Totals:			\$ 40,657,018	\$ (39,510)	\$ 40,617,508

¹ Amounts may not reflect other adjustments.

The first three adjustments above were made by the Company, after Staff Direct Testimony was filed, in response to RUCO Data Request 6.01 Supplemental. These reflect additional unrecorded retirements and reclassifications, which also include adjustments to two wastewater plant accounts (#389 and #391) which will be reflected in the wastewater schedules.

The fourth adjustment should have been recognized in Staff's Direct Testimony as Company Proposed.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 2 - ACCUMULATED DEPRECIATION

LINE NO.	ACCT NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF ¹ RECOMMENDED
1		Accumulated Depreciation	\$ 16,514,086	\$ 2,454,801	18,968,887

¹ Amounts may not reflect other adjustments.

REFERENCES:

Column [A]: Company Filing

Column [B]: Testimony DWC

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

RATE BASE ADJUSTMENT NO. 3 - TRUE-UP OF PLANT IN SERVICE ACCRUALS

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1	304	Structures and Improvements	\$ 28,000,916	\$ (178,617)	\$ 27,822,299
2	307	Wells and Springs	3,097,345	(18,108)	3,079,237
			<u>\$ 31,098,261</u>	<u>\$ (196,725)</u>	<u>\$ 30,901,536</u>

¹ Amounts may not reflect other adjustments.

REFERENCES:

Column [A]: Company Filing
Column [B]: Testimony DWC
Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 4 - PLANT ADDITIONS RECORDED IN WRONG YEARS

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1		Accumulated Depreciation	\$ 16,514,086	\$ 99,151	\$ 16,613,237

¹ Amounts may not reflect other adjustments.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

Litchfield Park Service Company - Water Division
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 Test Year Ended: December 31, 2012

RATE BASE ADJUSTMENT NO. 5 - RECLASSIFICATION OF PLANT

LINE NO.	ACCT NO.	DESCRIPTION	[A] COMPANY PROPOSED		[B] STAFF ADJUSTMENTS		[C] STAFF RECOMMENDED		Depr Rate	Years (1/2 Conv.)	A/D Adjustment
			\$		\$		\$				
1	304	Structure and Improvement	\$	28,000,916	\$	(2,776,772)	\$	25,224,144			
2	311	Pumping Equipment		897,792		(16,947)		880,845			
3	348	Other Tangible Plant		132,312		(9,897)		122,415			
4	307	Wells and Springs		3,097,345		134,878		3,232,223			
5	310	Power Generation		207,020		18,111		225,131			
6	320.1	Water Treatment Plant		1,696,759		1,728,635		3,425,394			
7	330.1	Storage Tanks		492,176		901,841		1,394,017			
8	340.1	Computer Software		-		7,995		7,995			
9		Total	\$	34,524,320	\$	(12,156)	\$	34,512,164			
10		Accumulated Depreciation	\$	16,514,086	\$	(27,948)		16,486,138			
11											
12											
13											
14		Staff's Removal of Plant and Accumulated Depreciation									
15	304	Structures and Improvement		\$		(1,036,948)			3.33%	3.5	(120,856)
16	2010	Structures and Improvement				(1,245,500)			3.33%	2.5	(103,688)
17	348	Other Tangible Plant				(9,897)			10.00%	2.5	(2,474)
18	2011	Structures and Improvement				(494,324)			3.33%	1.5	(24,691)
19	311	Pumping Equipment				(68,958)			12.50%	1.5	(12,930)
20		Total Removal of Plant and Accumulated Depreciation			\$	(2,855,627)		\$			(264,639)
21											
22		Staff's Reclassification of Plant and Accumulated Depreciation									
23	2009	Well and Springs		\$		65,920			3.33%	3.5	7,683
24	311	Pumping Equipment				10,851			12.50%	3.5	4,747
25	2008	Water Treatment Plant				287,816			3.33%	3.5	33,545
26	2009	Computer Software				7,995			20.00%	3.5	5,597
27	330.1	Storage Tanks				664,366			2.20%	3.5	51,156
28	2009	Pumping Equipment				13,620			12.50%	2.5	4,256
29	311	Water Treatment Plant				1,215,221			3.30%	2.5	100,256
30	2010	Storage Tanks				20,000			2.22%	2.5	1,110
31	2010	Office Furniture and Equip				6,555			6.67%	2.5	1,093
32	340	Well and Springs				68,958			3.33%	1.5	3,444
33	2011	Power Generation				18,111			5.00%	1.5	1,358
34	310	Pumping Equipment				20,984			12.50%	1.5	3,935
35	2011	Water Treatment Plant				225,598			3.33%	1.5	11,269
36	320.1	Storage Tanks				217,475			2.22%	1.5	7,242
37	2011	Total Reclassification of Plant and Accumulated Depreciation			\$	2,843,470		\$			236,691
38											(27,948)
39		Net decrease to accumulated depreciation									
40											
41		Note: Of the difference of \$12,157 (i.e. \$2,855,627 - \$2,843,470) \$6,000 is being reclassified to the Wastewater Division, and the remaining \$6,156.34 is not used and useful.									
42											

1 Amounts may not reflect other adjustments.

REFERENCES:
 Column [A]: Company Filing
 Column [B]: Testimony DWC
 Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 6 - PLANT NOT USED AND USEFUL

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1	303	Land and Land Rights	\$ 14,565,278	\$ (6,000)	\$ 14,559,278
2	304	Structures and Improvements	\$ 28,000,916	\$ (6,156)	\$ 27,994,760
Totals:			\$ 42,566,194	\$ (12,156)	\$ 42,554,038

¹ Amounts may not reflect other adjustments.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 7 - REMOVAL OF DUPLICATE INVOICES

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]	
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED	
1	304	Structures and Improvements	\$ 28,000,916	\$ (3,000)	\$ 27,997,916	
2	335	Hydrants	3,304,755	(2,608)	3,302,147	
3		Total	\$ 31,305,671	\$ (5,608)	\$ 31,300,063	
4						
5		Accumulated Depreciation	\$ 16,514,086	\$ (130)	\$ 16,513,956	
6						
7						
8		Staff's Calculation	PIS Adjustment	Years (1/2 Conv.)	Depr Rate	A/D Adjustment
9	335	Hydrants	\$ (2,608)	2.5	2.00%	\$ (130)
10						

¹ Amounts may not reflect other adjustments.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 8 RETIREMENT OF TRANSPORTATION EQUIPMENT

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1	341	Transportation Equipment	\$ 307,592	\$ (17,555)	\$ 290,037
2					
3		Accumulated Depreciation	\$ 16,514,086	\$ (17,555)	\$ 16,496,531

¹ Amounts may not reflect other adjustments.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 9 RECALCULATION OF CONTRIBUTIONS IN AID OF CONSTRUCTION

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1		Contributions in Aid of Construction	\$ 7,324,578	\$ 101,234	\$ 7,425,812
2					
3		Amortization of Contributions in Aid of Construction	\$ 1,489,772	\$ (193,524)	\$ 1,296,248

¹ Amounts may not reflect other adjustments.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 10 - CUSTOMER DEPOSITS

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1		Customer Deposits	\$ 140,147	\$ 7,514	\$ 147,661
2					
3		<u>Staff Calculation:</u>			
4		13th month average of customer deposits	\$ 311,436		
5		December 31th amount	295,587		
6		Increase over December 31 test year amount	\$ 15,849		
7					
8		Allocated to Water	\$ 7,514		
9		Allocated to Wastewater	8,334		
10		Total	\$ 15,849		

¹ Amounts may not reflect other adjustments.

REFERENCES:

Column [A]: Company Filing
 Column [B]: Testimony DWC
 Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 11 - ACCUMULATED DEFERRED INCOME TAXES

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1		Deferred Income Taxes	\$ 1,459,075	\$ (525,120)	\$ 933,955

¹ Amounts may not reflect other adjustments.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

OPERATING INCOME STATEMENT - ADJUSTED TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY ADJUSTED TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	<u>REVENUES:</u>					
2	Metered Water Sales	\$ 10,965,667	\$ -	\$ 10,965,667	\$ 1,064,885	\$ 12,030,552
3	Water Sales-Unmetered	-	-	-	-	-
4	Other Operating Revenue	235,723	-	235,723	-	235,723
5	Intentionally Left Blank	-	-	-	-	-
6	Total Operating Revenues	<u>\$ 11,201,390</u>	<u>\$ -</u>	<u>\$ 11,201,390</u>	<u>\$ 1,064,885</u>	<u>\$ 12,266,275</u>
7						
8	<u>OPERATING EXPENSES:</u>					
9	Salaries and Wages	\$ 1,069,839	\$ -	\$ 1,069,839	\$ -	\$ 1,069,839
10	Purchased Water	2,615	-	2,615	-	2,615
11	Purchased Power	903,527	-	903,527	-	903,527
12	Fuel for Power Production	-	-	-	-	-
13	Chemicals	208,080	-	208,080	-	208,080
14	Repairs and Maintenance	91,139	-	91,139	-	91,139
15	Office Supplies and Expense	-	-	-	-	-
16	Management Services - US Liberty Water	1,260,835	(27,089)	1,233,746	-	1,233,746
17	Management Services - Corporate	781,023	-	781,023	-	781,023
18	Outside Services - Accounting	9,271	-	9,271	-	9,271
19	Outside Services - Other	103,412	-	103,412	-	103,412
20	Outside Services - Legal	19,865	-	19,865	-	19,865
21	Water Testing	66,942	(4,464)	62,478	-	62,478
22	Rents Equipment	7,229	-	7,229	-	7,229
23	Transportation Expenses	103,726	-	103,726	-	103,726
24	Insurance - General Liability	88,374	-	88,374	-	88,374
25	Insurance - Vehicle	20,825	-	20,825	-	20,825
26	Reg. Comm. Exp. - Other	19,721	-	19,721	-	19,721
27	Reg. Comm. Exp. - Rate Case	65,800	-	65,800	-	65,800
28	Interest on Customer Deposits	-	-	5,931	-	5,931
29	Miscellaneous Expenses	151,237	-	151,237	-	151,237
30	Bad Debt Expense	(76)	-	(76)	-	(76)
31	Depreciation and Amortization Expense	2,615,868	12,095	2,627,963	-	2,627,963
32	Property Taxes	559,128	(27,957)	531,171	16,913	548,085
33	Income Taxes	1,028,634	29,411	1,058,045	401,269	1,459,313
34	Intentionally Left Blank	-	-	-	-	-
35	Total Operating Expenses	<u>\$ 9,177,014</u>	<u>\$ (18,004)</u>	<u>\$ 9,164,941</u>	<u>\$ 418,182</u>	<u>\$ 9,583,123</u>
36	Operating Income (Loss)	<u>\$ 2,024,376</u>	<u>\$ 18,004</u>	<u>\$ 2,036,449</u>	<u>\$ 646,704</u>	<u>\$ 2,683,153</u>

References:
Column (A): Company Schedule C-1
Column (B): Schedule DWC-W17
Column (C): Column (A) + Column (B)
Column (D): Schedules DWC-W24 and DWC-W25
Column (E): Column (C) + Column (D)

SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	(A) COMPANY AS FILED	(B) Water Testing Expense ADJ #1	(C) Corporate Allocation True-Up ADJ #2	(D) Corporate Allocation Expense ADJ #3	(E) Interest on Customer Deposits ADJ #4	(F) Depreciation Expense ADJ #5	(G) Property Tax Expense ADJ #6	(H) Income Tax Expense ADJ #7	(I) STAFF ADJUSTED
		Ref. Sch JMM-W18	Ref. Sch JMM-W19	Ref. Sch JMM-W20	Ref. Sch JMM-W21	Ref. Sch JMM-W22	Ref. Sch JMM-W23	Ref. Sch JMM-W24		
1	REVENUES:									
2	Metered Water Sales	\$ 10,965,667	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,965,667
3	Water Sales-Unmetered	-	-	-	-	-	-	-	-	-
4	Other Operating Revenue	235,723	-	-	-	-	-	-	-	235,723
5	Intentionally Left Blank	-	-	-	-	-	-	-	-	-
6	Total Operating Revenues	\$ 11,201,390	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,201,390
7										
8	OPERATING EXPENSES:									
9	Salaries and Wages	\$ 1,069,839	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,069,839
10	Purchased Water	2,615	-	-	-	-	-	-	-	2,615
11	Purchased Power	903,527	-	-	-	-	-	-	-	903,527
12	Fuel for Power Production	-	-	-	-	-	-	-	-	-
13	Chemicals	208,080	-	-	-	-	-	-	-	208,080
14	Repairs and Maintenance	91,139	-	-	-	-	-	-	-	91,139
15	Office Supplies and Expense	-	-	-	-	-	-	-	-	-
16	Management Services - US Liberty Water	1,260,835	-	(8,420)	(18,669)	-	-	-	-	1,233,746
17	Management Services - Corporate	781,023	-	-	-	-	-	-	-	781,023
18	Outside Services - Accounting	9,271	-	-	-	-	-	-	-	9,271
19	Outside Services - Other	103,412	-	-	-	-	-	-	-	103,412
20	Outside Services - Legal	19,865	-	-	-	-	-	-	-	19,865
21	Water Testing	66,942	(4,464)	-	-	-	-	-	-	62,478
22	Rents Equipment	7,229	-	-	-	-	-	-	-	7,229
23	Transportation Expenses	103,726	-	-	-	-	-	-	-	103,726
24	Insurance - General Liability	88,374	-	-	-	-	-	-	-	88,374
25	Insurance - Vehicle	20,825	-	-	-	-	-	-	-	20,825
26	Reg. Comm. Exp. - Other	19,721	-	-	-	-	-	-	-	19,721
27	Reg. Comm. Exp. - Rate Case	65,800	-	-	-	-	-	-	-	65,800
28	Interest on Customer Deposits	-	-	-	5,931	-	-	-	-	5,931
29	Miscellaneous Expenses	151,237	-	-	-	-	-	-	-	151,237
30	Bad Debt Expense	(76)	-	-	-	-	-	-	-	(76)
31	Depreciation and Amortization Expense	2,615,868	-	-	-	12,095	-	-	-	2,627,963
32	Property Taxes	589,128	-	-	-	-	(27,957)	-	-	531,171
33	Income Taxes	1,028,634	-	-	-	-	-	29,411	-	1,058,045
34	Intentionally Left Blank	-	-	-	-	-	-	-	-	-
35	Total Operating Expenses	\$ 9,177,014	\$ (4,464)	\$ (8,420)	\$ (18,669)	\$ 5,931	\$ (27,957)	\$ (29,411)	\$ (29,411)	\$ 9,164,942
36	Operating Income (Loss)	\$ 2,024,376	\$ 4,464	\$ 8,420	\$ 18,669	\$ (5,931)	\$ 27,957	\$ -	\$ -	\$ 2,036,448

Litchfield Park Service Company - Water Division
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Surrebuttal Schedule DWC-W18

OPERATING INCOME ADJUSTMENT NO. 1 - Water Testing

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1	Water Testing	\$ 66,942	\$ (4,464)	\$ 62,478

¹ Amounts may not reflect other adjustments.

REFERENCES:

Column [A]: Company Filing

Column [B]: Testimony DWC

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

OPERATING INCOME ADJUSTMENT NO. 2 - CORPORATE EXPENSE TRUE-UP

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1	Management Services - US Liberty Water	\$ 1,260,835	\$ (8,420)	\$ 1,252,415
2				
3				
4	Staff's Calculation			
5	Accrual Adjustment	\$ 29,297		
6	Allocated to Water	28.74%	\$ 8,420	
7	Allocated to Wastewater	26.87%	\$ 7,872	

¹ Amounts may not reflect other adjustments.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

Litchfield Park Service Company - Water Division
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Test Year Ended: December 31, 2012

Surrebuttal Schedule DWC-W20

OPERATING INCOME ADJUSTMENT NO. 3 - CORPORATE ALLOCATION EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1	Management Services - US Liberty Water	\$ 1,260,835	\$ (18,669)	\$ 1,242,166

¹ Amounts may not reflect other adjustments.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 4 - INTEREST ON CUSTOMER DEPOSITS

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1	Interest on Customer Deposits	\$ -	\$ 5,931	\$ 5,931
2				
3	Staff's Calculation			
4	Allocated to Water		\$ 5,346	
5	Allocated to Wastewater		5,931	
6	Total		\$ 11,277	

¹ Amounts may not reflect other adjustments.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 5 - DEPRECIATION EXPENSE ON TEST YEAR PLANT

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]	[D]	[E]
			PLANT In SERVICE Per Staff	NonDepreciable or Fully Depreciated PLANT	DEPRECIABLE PLANT (Col A - Col B)	DEPRECIATION RATE	DEPRECIATION EXPENSE (Col C x Col D)
1	301	Organization Cost	\$ 21,100	\$ 21,100	\$ -	0.00%	\$ -
2	302	Franchise Cost	\$ -	\$ -	\$ -	0.00%	\$ -
3	303	Land and Land Rights	\$ 1,450,278	\$ 1,450,278	\$ -	0.00%	\$ -
4	304	Structures and Improvements	\$ 25,036,371	\$ -	\$ 25,036,371	3.33%	\$ 833,711
5	305	Collecting and Impounding Res.	\$ -	\$ -	\$ -	2.50%	\$ -
6	306	Lake River and Other Intakes	\$ -	\$ -	\$ -	2.50%	\$ -
7	307	Wells and Springs	\$ 3,214,115	\$ -	\$ 3,214,115	3.33%	\$ 107,030
8	308	Infiltration Galleries and Tunnels	\$ -	\$ -	\$ -	6.67%	\$ -
9	309	Supply Mains	\$ -	\$ -	\$ -	2.00%	\$ -
10	310	Power Generation Equipment	\$ 225,131	\$ -	\$ 225,131	5.00%	\$ 11,257
11	311	Electric Pumping Equipment	\$ 880,845	\$ -	\$ 880,845	12.50%	\$ 110,106
12	320	Water Treatment Equipment	\$ 3,425,394	\$ -	\$ 3,425,394	3.33%	\$ 114,066
13	320	Water Treatment Plant	\$ -	\$ -	\$ -	3.33%	\$ -
14	330	Distribution Reservoirs & Standpipe	\$ 1,394,017	\$ -	\$ 1,394,017	2.22%	\$ 30,947
15	331	Transmission and Distribution Mains	\$ 40,256,186	\$ -	\$ 40,256,186	2.00%	\$ 805,124
16	333	Services	\$ 5,350,963	\$ -	\$ 5,350,963	3.33%	\$ 178,187
17	334	Meters	\$ 4,759,560	\$ -	\$ 4,759,560	8.33%	\$ 396,471
18	335	Hydrants	\$ 3,302,147	\$ -	\$ 3,302,147	2.00%	\$ 66,043
19	336	Backflow Prevention Devices	\$ 38,387	\$ -	\$ 38,387	6.67%	\$ 2,560
20	339	Other Plant and Miscellaneous Equipment	\$ 259,531	\$ -	\$ 259,531	6.67%	\$ 17,311
21	340	Office Furniture and Fixtures	\$ 651,098	\$ -	\$ 651,098	6.67%	\$ 43,428
22	340.1	Computer and Software	\$ 7,995	\$ -	\$ 7,995	20.00%	\$ 1,599
23	341	Transportation Equipment	\$ 234,697	\$ -	\$ 234,697	20.00%	\$ 46,939
24	342	Stores Equipment	\$ 37,143	\$ -	\$ 37,143	4.00%	\$ 1,486
25	343	Tools and Work Equipment	\$ 47,434	\$ -	\$ 47,434	5.00%	\$ 2,372
26	344	Laboratory Equipment	\$ 5,803	\$ -	\$ 5,803	10.00%	\$ 580
27	345	Power Operated Equipment	\$ 18,003	\$ -	\$ 18,003	5.00%	\$ 900
28	346	Communications Equipment	\$ 128,402	\$ -	\$ 128,402	10.00%	\$ 12,840
29	347	Miscellaneous Equipment	\$ -	\$ -	\$ -	10.00%	\$ -
30	348	Other Tangible Plant	\$ 122,415	\$ -	\$ 122,415	10.00%	\$ 12,241
31		Total Plant	\$ 90,867,015	\$ 1,471,378	\$ 89,395,637		\$ 2,795,199
32							
33		Less: Amortization of Contributions					
34	307	Wells and Springs	\$ 499,000			3.33%	\$ (16,617)
35	311	Electric Pumping Equipment	\$ 40,572			12.50%	\$ (5,072)
36	331	Trans. and Dist. Mains	\$ 5,893,218			2.00%	\$ (117,864)
37	333	Services	\$ 772,209			3.33%	\$ (25,715)
38	334	Meters	\$ 29,899			8.33%	\$ -
39	335	Hydrants	\$ 98,419			2.00%	\$ (1,968)
40			\$ 7,333,317				\$ (167,236)
41							
42		Total Depreciation Expense					\$ 2,627,963
43							
44		Depreciation Expense - Company					\$ 2,615,868
45							
46		Staff's Adjustment to Depreciation Expense					\$ 12,095

*Fully Depreciated/Amortized

References:

- Column [A]: Schedule DWC-W16
- Column [B]: From Column [A]
- Column [C]: Column [A] - Column [B]
- Column [D]: Engineering Staff Report
- Column [E]: Column [C] x Column [D]

OPERATING INCOME ADJUSTMENT NO. 6 - PROPERTY TAX EXPENSE

LINE NO.		[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
	Property Tax Calculation		
1	Staff Adjusted Test Year Revenues	\$ 11,201,390	\$ 11,201,390
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	22,402,780	\$ 22,402,780
4	Staff Recommended Revenue, Per Schedule JMM-W1	11,201,390	\$ 12,266,275
5	Subtotal (Line 4 + Line 5)	33,604,170	34,669,055
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	11,201,390	\$ 11,556,352
8	Department of Revenue Mutilplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	22,402,780	\$ 23,112,703
10	Plus: 10% of CWIP -	-	-
11	Less: Net Book Value of Licensed Vehicles	107,049	\$ 107,049
12	Full Cash Value (Line 9 + Line 10 - Line 11)	22,295,731	\$ 23,005,655
13	Assessment Ratio	19.0%	19.0%
14	Assessment Value (Line 12 * Line 13)	4,236,189	\$ 4,371,074
15	Composite Property Tax Rate (Per Company Schedule)	12.5389%	12.5389%
16			\$ -
17	Staff Test Year Adjusted Property Tax (Line 14 * Line 15)	\$ 531,171	
18	Company Proposed Property Tax	559,128	
19			
20	Staff Test Year Adjustment (Line 16-Line 17)	\$ (27,957)	
21	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		\$ 548,085
22	Staff Test Year Adjusted Property Tax Expense (Line 16)		\$ 531,171
23	Increase in Property Tax Expense Due to Increase in Revenue Requirement		\$ 16,913
24			
25	Increase to Property Tax Expense		\$ 16,913
26	Increase in Revenue Requirement		1,064,885
27	Increase to Property Tax per Dollar Increase in Revenue (Line19/Line 20)		1.588260%

REFERENCES:

Column [A]: Company Filing
Column [B]: Testimony DWC
Column [C]: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 7 - TEST YEAR INCOME TAXES

LINE NO.	<u>DESCRIPTION</u>		<u>Test Year</u>
1			
2			
3			
4	<i>Calculation of Income Tax:</i>		
5	Revenue (Schedule JMM-11)	\$	11,201,390
6	Operating Expenses Excluding Income Taxes	\$	8,106,896
7	Synchronized Interest (L17)	\$	331,253
8	Arizona Taxable Income (L1 - L2 - L3)	\$	2,763,240
9	Arizona State Income Tax Rate		6.5000%
10	Arizona Income Tax (L4 x L5)	\$	179,611
11	Federal Taxable Income (L4 - L6)	\$	2,583,630
12	Federal Tax on First Income Bracket (\$1 - \$50,000) @ 15%	\$	7,500
13	Federal Tax on Second Income Bracket (\$51,001 - \$75,000) @ 25%	\$	6,250
14	Federal Tax on Third Income Bracket (\$75,001 - \$100,000) @ 34%	\$	8,500
15	Federal Tax on Fourth Income Bracket (\$100,001 - \$335,000) @ 39%	\$	91,650
16	Federal Tax on Fifth Income Bracket (\$335,001 - \$10,000,000) @ 34%	\$	764,534
17	Total Federal Income Tax	\$	878,434
18	Combined Federal and State Income Tax (L44 + L51)	\$	<u>1,058,045</u>
19			
20			
21	<i>Calculation of Interest Synchronization:</i>		
22	Rate Base (Schedule JMM-W4)	\$	33,125,342
23	Weighted Average Cost of Debt		1.10%
24	Synchronized Interest (L16 x L17)	\$	<u>364,379</u>
25			
26			
27			
28			
29			
	Income Tax - Per Staff	\$	1,058,045
	Income Tax - Per Company	\$	1,028,634
	Staff Adjustment	\$	<u>29,411</u>

REFERENCES:
Column [A]: Company Filing
Column [B]: Testimony DWC
Column [C]: Column [A] + Column [B]

Monthly Usage Charge	Present	Company Proposed Rates	Staff Recommended Rates
Meter Size (All Classes):			
5/8 x 3/4 Inch	\$ 10.20	\$ 14.50	\$ 9.90
3/4 Inch - Residential	10.20	14.50	9.90
3/4 Inch	10.20	14.50	9.90
1 Inch - Residential	22.95	32.75	25.00
1 Inch	25.50	36.25	27.68
1 1/2 Inch	51.00	72.50	50.00
2 Inch	81.60	116.00	80.00
3 Inch	163.20	232.00	160.00
4 Inch	255.00	362.50	250.00
6 Inch	510.00	725.00	500.00
8 Inch - Bulk Water Only	501.00	575.00	500.00
8 Inch	841.50	1,160.00	800.00
10 Inch	1,173.00	1,667.50	1,150.00
12 Inch	2,193.00	3,117.50	2,150.00
Commodity Charge - Per 1,000 Gallons			
5/8" x 3/4" Meter and 3/4" (Residential)			
First 3,000 gallons	\$ 1.00	N/A	N/A
3,001 to 9,000 gallons	\$ 1.91	N/A	N/A
Over 9,000 gallons	\$ 3.03	N/A	N/A
First 3,000 gallons	N/A	\$ 1.00	N/A
3,001 to 11,000 gallons	N/A	\$ 2.00	N/A
11,001 to 30,000 gallons	N/A	\$ 3.05	N/A
Over 30,000 gallons	N/A	\$ 3.66	N/A
First 3,000 gallons	N/A	N/A	\$ 0.75
3,001 to 9,000 gallons	N/A	N/A	\$ 1.75
9,001 to 20,000 gallons	N/A	N/A	\$ 3.55
Over 20,000 gallons	N/A	N/A	\$ 4.00
5/8" x 3/4" and 3/4" Meter (Commercial & Irrigation)			
First 9,000 gallons	\$ 1.91	\$ 2.00	N/A
Over 9,000 gallons	\$ 3.03	\$ 3.66	N/A
First 9,000 gallons	N/A	N/A	\$ 1.75
Over 9,000 gallons	N/A	N/A	\$ 4.00
1" Meter (Residential)			
First 5,000 gallons	\$ 1.00	N/A	N/A
5,001 to 20,000 gallons	\$ 1.91	N/A	N/A
Over 20,000 gallons	\$ 3.03	N/A	N/A
First 5,000 gallons	N/A	\$ 1.00	N/A
5,001 to 20,000 gallons	N/A	\$ 2.00	N/A
20,001 to 40,000 gallons	N/A	\$ 3.05	N/A
Over 40,000 gallons	N/A	\$ 3.66	N/A
First 3,000 gallons	N/A	N/A	\$ 0.75
3,001 to 20,000 gallons	N/A	N/A	\$ 1.75
20,001 to 37,000 gallons	N/A	N/A	\$ 3.55
Over 37,000 gallons	N/A	N/A	\$ 4.00
1" Meter (Commercial & Irrigation)			
First 20,000 gallons	\$ 1.91	\$ 2.00	N/A
Over 20,000 gallons	\$ 3.03	\$ 3.66	N/A
First 25,000 gallons	N/A	N/A	\$ 1.75
Over 25,000 gallons	N/A	N/A	\$ 4.00
1 1/2" Meter (All Classes)			
First 40,000 gallons	\$ 1.91	\$ 2.00	N/A
Over 40,000 gallons	\$ 3.03	\$ 3.66	N/A
First 37,000 gallons	N/A	N/A	\$ 1.75
Over 37,000 gallons	N/A	N/A	\$ 4.00
2" Meter (All Classes)			
First 60,000 gallons	\$ 1.91	\$ 2.00	N/A
Over 60,000 gallons	\$ 3.03	\$ 3.66	N/A
First 52,000 gallons	N/A	N/A	\$ 1.75
Over 52,000 gallons	N/A	N/A	\$ 4.00
3" Meter (All Classes)			
First 120,000 gallons	\$ 1.91	\$ 2.00	N/A
Over 120,000 gallons	\$ 3.03	\$ 3.66	N/A
First 94,000 gallons	N/A	N/A	\$ 1.75
Over 94,000 gallons	N/A	N/A	\$ 4.00
4" Meter (All Classes)			
First 180,000 gallons	\$ 1.91	\$ 2.00	N/A
Over 180,000 gallons	\$ 3.03	\$ 3.66	N/A
First 140,000 gallons	N/A	N/A	\$ 1.75
Over 140,000 gallons	N/A	N/A	\$ 4.00
6" Meter (All Classes)			
First 360,000 gallons	\$ 1.91	\$ 2.00	N/A
Over 360,000 gallons	\$ 3.03	\$ 3.66	N/A
First 270,000 gallons	N/A	N/A	\$ 1.75
Over 270,000 gallons	N/A	N/A	\$ 4.00
8" Meter (Bulk Resale)			
All Classes	\$ 1.50	\$ 1.65	\$ 1.65
8" Meter (All Classes)			
First 650,000 gallons	\$ 1.91	\$ 2.00	N/A
Over 650,000 gallons	\$ 3.03	\$ 3.66	N/A
First 430,000 gallons	N/A	N/A	\$ 1.75
Over 430,000 gallons	N/A	N/A	\$ 4.00

10" Meter (All Classes)

First 940,000 gallons	1.91	2.00	N/A
Over 940,000 gallons	3.03	3.66	N/A
First 600,000 gallons	N/A	N/A	1.75
Over 600,000 gallons	N/A	N/A	4.00

12" Meter (All Classes)

First 1,248,000 gallons	2.92	N/A	N/A
Over 1,248,000 gallons	3.64	N/A	N/A
First 1,000,000 gallons	N/A	N/A	1.75
Over 1,000,000 gallons	N/A	N/A	4.00

Construction Hydrants

All Gallons	3.03	3.66	3.66
-------------	------	------	------

Other Service Charges

Establishment (Regular Hours) per Rule R14-2-403D (a)	\$ 20.00	\$ 20.00	\$ 20.00
Establishment (After Hours) per Rule R14-2-403D (a)	**40.00**	**40.00**	**NT**
Re-establishment of Service per Rule R14-2-403D (a)	(b)	(b)	(b)
Reconnection (Regular Hours) per Rule R14-2-403D (a)	\$ 50.00	\$ 50.00	\$ 20.00
Reconnection (After Hours) per Rule R14-2-403D (a)	**65.00**	**65.00**	**NT**
Meter Test (if correct) per Rule R14-2-408F	\$ 25.00	\$ 25.00	\$ 25.00
Meter Reread per Rule R14-2-408C (if correct)	\$ 5.00	\$ 5.00	\$ 5.00
Fire Hydrant Meter Relocation	NT	\$ 50.00	\$ 50.00
Fire Hydrant Meter Repair	NT	Cost	Cost
NSF Check per Rule R14-2-409F (a)	\$ 25.00	\$ 25.00	\$ 25.00
Deferred Payment, Per Month	1.50%	1.50%	1.50%
Late Charge	(c)	(c)	(c)
Service Calls - Per Hour/After Hours	**40.00**	**40.00**	**NT**
After Hours Service Charge (d)	NT	NT	\$ 40.00
Deposit Requirements	(e)	(e)	(e)
Deposit Interest	3.50%	3.50%	6.00%
Meter and Service lines	**See Below**	**See Below**	**See Below**
Main Extension Tariff	NT	at Cost	at Cost

- (a) Charges applicable to water service.
- (b) Minimum charge times number of full months off the system, per Rule R14-2-403(D).
- (c) Greater of \$5.00 or 1.5% of unpaid balance.
- (d) An After Hours Service Charge is appropriate when it is at the customer's request or convenience. It compensates the utility for additional expenses incurred from providing after-hours services. It is appropriate to apply this charge in addition to the charge for any utility service provided after hours at the customer's request or for the customer's convenience.
- (e) Per ACC Rules R14-2-403(B) Residential - two times the average bill. Commercial - two and one-half times the average bill.

NT = No tariff

Refundable Meter and Service Line Charges

	Present Service Line Charge	Present Meter Installation Charge	Total Present Charge	Proposed Service Line Charge	Proposed Meter Installation Charge	Total Proposed Charge	Recommended Service Line Charge	Recommended Meter Installation Charge	Total Recommended Charge
5/8 x 3/4 Inch	\$ 385.00	\$ 135.00	\$ 520.00	at Cost	at Cost	at Cost	\$ 445.00	\$ 155.00	\$ 600.00
3/4 Inch	\$ 385.00	\$ 215.00	\$ 600.00	at Cost	at Cost	at Cost	\$ 445.00	\$ 255.00	\$ 700.00
1 Inch	\$ 435.00	\$ 255.00	\$ 690.00	at Cost	at Cost	at Cost	\$ 495.00	\$ 315.00	\$ 810.00
1 1/2 Inch	\$ 470.00	\$ 465.00	\$ 935.00	at Cost	at Cost	at Cost	\$ 550.00	\$ 525.00	\$ 1,075.00
2 Inch / Turbine	\$ 630.00	\$ 965.00	\$ 1,595.00	at Cost	at Cost	at Cost	at Cost	at Cost	at Cost
2 Inch / Compound	\$ 630.00	\$ 1,690.00	\$ 2,320.00	at Cost	at Cost	at Cost	at Cost	at Cost	at Cost
3 Inch / Turbine	\$ 805.00	\$ 1,470.00	\$ 2,275.00	at Cost	at Cost	at Cost	at Cost	at Cost	at Cost
3 Inch / Compound	\$ 845.00	\$ 2,265.00	\$ 3,110.00	at Cost	at Cost	at Cost	at Cost	at Cost	at Cost
4 Inch / Turbine	\$ 1,170.00	\$ 2,350.00	\$ 3,520.00	at Cost	at Cost	at Cost	at Cost	at Cost	at Cost
4 Inch / Compound	\$ 1,230.00	\$ 3,245.00	\$ 4,475.00	at Cost	at Cost	at Cost	at Cost	at Cost	at Cost
6 Inch / Turbine	\$ 1,730.00	\$ 4,545.00	\$ 6,275.00	at Cost	at Cost	at Cost	at Cost	at Cost	at Cost
6 Inch / Compound	\$ 1,770.00	\$ 6,280.00	\$ 8,050.00	at Cost	at Cost	at Cost	at Cost	at Cost	at Cost
8 Inch & Larger	at Cost	at Cost	at Cost	at Cost	at Cost	at Cost	at Cost	at Cost	at Cost

Hydrant Meter Deposit*

	Present Charge	Proposed Charge	Proposed Charge
5/8 x 3/4 Inch	\$ 135.00	\$ 135.00	\$ 135.00
3/4 Inch	\$ 215.00	\$ 215.00	\$ 215.00
1 Inch	\$ 255.00	\$ 255.00	\$ 255.00
1 1/2 Inch	\$ 465.00	\$ 465.00	\$ 465.00
2 Inch / Turbine	\$ 965.00	\$ 965.00	\$ 965.00
2 Inch / Compound	\$ 1,690.00	\$ 1,690.00	\$ 1,690.00
3 Inch / Turbine	\$ 1,470.00	\$ 1,470.00	\$ 1,470.00
3 Inch / Compound	\$ 2,265.00	\$ 2,265.00	\$ 2,265.00
4 Inch / Turbine	\$ 2,350.00	\$ 2,350.00	\$ 2,350.00
4 Inch / Compound	\$ 3,245.00	\$ 3,245.00	\$ 3,245.00
6 Inch / Turbine	\$ 4,545.00	\$ 4,545.00	\$ 4,545.00
6 Inch / Compound	\$ 6,280.00	\$ 6,280.00	\$ 6,280.00
8 Inch & Larger	at Cost	at Cost	at Cost

* Shall have a non-interest bearing deposit of the amount indicated, refundable in its entirety upon return of the meter in good condition and payment of the final bill.

**These line items should be removed from new tariff.

Note that a low income tariff is available. See the low income tariff for more information.

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

Company Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	9,061	\$ 24.84	\$ 31.46	\$ 6.61	26.61%
Median Usage	5,000	17.02	23.01	\$ 5.99	35.19%
Staff Recommended					
Average Usage	9,061	\$ 24.84	\$ 22.87	\$ (1.98)	-7.96%
Median Usage	5,000	17.02	15.65	\$ (1.37)	-8.05%

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

Gallons	Company Proposed		Staff Recommended	
	Present	%	Recommended	%
	3/4"	3/4"	3/4"	
	Minimum Charge \$ 10.20	Minimum Charge \$ 14.77	Minimum Charge \$ 9.90	
	1st Tier Rate 1.0000	1st Tier Rate 1.5400	1st Tier Rate 0.7500	
	1st Tier Breakover 3,000	1st Tier Breakover 4,000	1st Tier Breakover 3,000	
	2nd Tier Rate 1.9100	2nd Tier Rate 2.0800	2nd Tier Rate 1.7500	
	2nd Tier Breakover 9,000	2nd Tier Breakover 12,000	2nd Tier Breakover 9,000	
	3rd Tier Rate 3.0300	3rd Tier Rate 2.9500	3rd Tier Rate 3.5500	
Consumption	Rates	Rates	Rates	Increase
-	\$ 10.20	\$ 14.77	\$ 9.90	-2.94%
1,000	11.20	16.31	10.65	-4.91%
2,000	12.20	17.85	11.40	-6.56%
3,000	13.20	19.39	12.15	-7.95%
4,000	15.11	20.93	13.90	-8.01%
5,000	17.02	23.01	15.65	-8.05%
6,000	18.93	25.09	17.40	-8.08%
7,000	20.84	27.17	19.15	-8.11%
8,000	22.75	29.25	20.90	-8.13%
9,000	24.66	31.33	22.65	-8.15%
10,000	27.69	33.41	26.20	-5.38%
11,000	30.72	35.49	29.75	-3.16%
12,000	33.75	37.57	33.30	-1.33%
13,000	36.78	40.52	36.85	0.19%
14,000	39.81	43.47	40.40	1.48%
15,000	42.84	46.42	43.95	2.59%
16,000	45.87	49.37	47.50	3.55%
17,000	48.90	52.32	51.05	4.40%
18,000	51.93	55.27	54.60	5.14%
19,000	54.96	58.22	58.15	5.80%
20,000	57.99	61.17	61.70	6.40%
25,000	73.14	75.92	79.45	8.63%
30,000	88.29	90.67	97.20	10.09%
35,000	103.44	105.42	114.95	11.13%
40,000	118.59	120.17	132.70	11.90%
45,000	133.74	134.92	150.45	12.49%
50,000	148.89	149.67	168.20	12.97%
75,000	224.64	223.42	256.95	14.38%
100,000	300.39	297.17	345.70	15.08%

Litchfield Park Service Company - Wastewater Division
Docket Nos. W-01428A-13-0043 and SW-01428A-13-0042
Test Year Ended: December 31, 2012

Surrebuttal Testimony of Darron W. Carlson

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DWC-WW16	OPERATING INCOME STATEMENT - ADJUSTED TEST YEAR AND STAFF RECOMMENDED
DWC-WW17	SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR
DWC-WW18	OPERATING INCOME ADJUSTMENT # 1 - WATER TESTING EXPENSE
DWC-WW19	OPERATING INCOME ADJUSTMENT # 2 - CORPORATE ALLOCATION ACCRUAL TRUE-UP
DWC-WW20	OPERATING INCOME ADJUSTMENT # 3 - CORPORATE ALLOCATION EXPENSE
DWC-WW21	OPERATING INCOME ADJUSTMENT # 4 - INTEREST ON CUSTOMER DEPOSITS
DWC-WW22	OPERATING INCOME ADJUSTMENT # 5 - DEPRECIATION EXPENSE
DWC-WW23	OPERATING INCOME ADJUSTMENT # 6 - PROPERTY TAX EXPENSE
DWC-WW24	OPERATING INCOME ADJUSTMENT # 7 - TEST YEAR INCOME TAXES
DWC-WW25	RATE DESIGN
DWC-WW26	TYPICAL BILL ANALYSIS

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	(A) COMPANY FAIR VALUE	(B) STAFF FAIR VALUE
1	Adjusted Rate Base	\$ 23,877,697	\$ 23,428,440
2	Adjusted Operating Income (Loss)	\$ 1,871,616	\$ 1,925,521
3	Current Rate of Return (L2 / L1)	7.84%	8.22%
4	Required Rate of Return	9.50%	8.10%
5	Required Operating Income (L4 * L1)	\$ 2,268,786	\$ 1,897,704
6	Operating Income Deficiency (L5 - L2)	\$ 397,170	\$ (27,817)
7	Gross Revenue Conversion Factor	1.6595	1.6496
8	Required Revenue Increase (L7 * L6)	\$ 659,088	\$ (45,887)
9	Adjusted Test Year Revenue	\$ 10,361,603	\$ 10,361,603
10	Proposed Annual Revenue (L8 + L9)	\$ 11,020,691	\$ 10,315,716
11	Required Increase in Revenue (%)	6.36%	-0.44%

References:

Column (A): Company Schedule A-1

Column (B): Staff Schedules DWC-W3 and DWC-W16

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
<u>Calculation of Gross Revenue Conversion Factor:</u>					
1	Revenue	100.0000%			
2	Uncollectible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	39.3790%			
5	Subtotal (L3 - L4)	60.6210%			
6	Revenue Conversion Factor (L1 / L5)	1.649594			
<u>Calculation of Uncollectible Factor:</u>					
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 23)	38.2900%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.7100%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 * L10)	0.0000%			
<u>Calculation of Effective Tax Rate:</u>					
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.5000%			
14	Federal Taxable Income (L12 - L13)	93.5000%			
15	Applicable Federal Income Tax Rate (Line 55)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.7900%			
17	Combined Federal and State Income Tax Rate (L13 +L16)		38.2900%		
<u>Calculation of Effective Property Tax Factor</u>					
18	Unity	100.0000%			
19	Combined Federal and State Income Tax Rate (L17)	38.2900%			
20	One Minus Combined Income Tax Rate (L18-L19)	61.7100%			
21	Property Tax Factor	1.7647%			
22	Effective Property Tax Factor (L20*L21)		1.0890%		
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			39.3790%	
24	Required Operating Income	\$ 1,897,704			
25	Adjusted Test Year Operating Income (Loss)	1,925,521			
26	Required Increase in Operating Income (L24 - L25)		\$ (27,817)		
27	Income Taxes on Recommended Revenue (Col. [E], L52)	\$ 1,032,123			
28	Income Taxes on Test Year Revenue (Col. [B], L52)	1,049,383			
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		(17,260)		
30	Recommended Revenue Requirement	\$ 10,315,716			
31	Uncollectible Rate (Line 10)	0.0000%			
32	Uncollectible Expense on Recommended Revenue (L30*L31)	\$ -			
33	Adjusted Test Year Uncollectible Expense	\$ -			
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32-L33)				
35	Property Tax with Recommended Revenue	\$ 546,415			
36	Property Tax on Test Year Revenue	547,225			
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		(810)		
38	Total Required Increase in Revenue (L26 + L29 + L34 + L37)		\$ (45,887)		
<u>Calculation of Income Tax:</u>					
39	Revenue	\$ 10,361,603	\$ (45,887)	\$ 10,315,716	
40	Operating Expenses Excluding Income Taxes	\$ 7,386,699		\$ 7,385,890	
41	Synchronized Interest (L56)	\$ 234,284		\$ 234,284	
42	Arizona Taxable Income (L39 - L40 - L41)	\$ 2,740,619		\$ 2,695,542	
43	Arizona State Income Tax Rate	6.5000%		6.5000%	
44	Arizona Income Tax (L42 x L43)	\$ 178,140		\$ 175,210	
45	Federal Taxable Income (L42 - L44)	\$ 2,562,479		\$ 2,520,332	
46	Federal Tax on First Income Bracket (\$1 - \$50,000) @ 15%	\$ 7,500		\$ 7,500	
47	Federal Tax on Second Income Bracket (\$51,001 - \$75,000) @ 25%	\$ 6,250		\$ 6,250	
48	Federal Tax on Third Income Bracket (\$75,001 - \$100,000) @ 34%	\$ 8,500		\$ 8,500	
49	Federal Tax on Fourth Income Bracket (\$100,001 - \$335,000) @ 39%	\$ 91,650		\$ 91,650	
50	Federal Tax on Fifth Income Bracket (\$335,001 - \$10,000,000) @ 34%	\$ 757,343		\$ 743,013	
51	Total Federal Income Tax	\$ 871,243		\$ 856,913	
52	Combined Federal and State Income Tax (L44 + L51)	\$ 1,049,383		\$ 1,032,123	
53	Applicable Federal Income Tax Rate [Col. [E], L51 - Col. [B], L51] / [Col. [E], L45 - Col. [B], L45]				34.0000%
<u>Calculation of Interest Synchronization:</u>					
54	Rate Base	\$ 23,428,440			
55	Weighted Average Cost of Debt	1.0000%			
56	Synchronized Interest (L45 X L46)	\$ 234,284			

Litchfield Park Service Company - Wastewater Division
Docket Nos. W-01428A-13-0043 and SW-01428A-13-0042
Test Year Ended: December 31, 2012

Surrebuttal Schedule DWC-WW3

RATE BASE - ORIGINAL COST

LINE NO.	(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	(C) STAFF AS ADJUSTED
1	Plant in Service	\$ 74,024,533	\$ 73,395,842
2	Less: Accumulated Depreciation	13,244,186	13,251,313
3	Net Plant in Service	<u>\$ 60,780,347</u>	<u>\$ 60,144,529</u>
LESS:			
4	Contributions in Aid of Construction (CIAC)	\$ 28,470,485	\$ 28,376,915
5	Less: Accumulated Amortization	4,446,775	4,153,301
6	Net CIAC	<u>24,023,710</u>	<u>\$ 24,223,614</u>
7	Advances in Aid of Construction (AIAC)	11,645,290	11,645,290
8	Customer Meter Deposits	95,892	95,892
	Customer Deposits	155,440	163,774
9	Deferred Income Tax Credits	982,318	587,519
ADD:			
9	Deferred Regulatory Assets TCE Plume	-	-
10	Deffered Regulatory Assets	-	-
11	Original Cost Rate Base	<u>\$ 23,877,697</u>	<u>\$ 23,428,440</u>

References:

Column [A]: Company as Filed
Column [B]: Schedule DWC-W4
Column (C): Column (A) + Column (B)

[H] ADJ.#Z	[I] ADJ.#8 Not Used	[J] ADJ.#9 Recalculation of CIAC	[K] ADJ.#10 Customer Deposits	[L] ADJ.#11 ADIT	[M] STAFF ADJUSTED
Duplicate Invoices	Ref. Sch JMM-WW12	Ref. Sch JMM-WW13	Ref. Sch JMM-WW14	Ref. Sch JMM-WW15	
\$	\$	\$	\$	\$	\$
(3,409)	-	-	-	-	1,835,956
(400)	-	-	-	-	23,768,875
-	-	-	-	-	602,932
-	-	-	-	-	1,162,597
-	-	-	-	-	31,928,244
-	-	-	-	-	76,190
-	-	-	-	-	46,210
-	-	-	-	-	36,618
-	-	-	-	-	4,057,660
-	-	-	-	-	44,753
-	-	-	-	-	860,393
-	-	-	-	-	861,151
-	-	-	-	-	62,286
-	-	-	-	-	420,334
-	-	-	-	-	5,356,062
-	-	-	-	-	47,802
-	-	-	-	-	343,661
(864)	-	-	-	-	833,822
-	-	-	-	-	275,740
-	-	-	-	-	26,387
-	-	-	-	-	8,868
-	-	-	-	-	129,960
-	-	-	-	-	187,184
-	-	-	-	-	6,805
-	-	-	-	-	415,441
(214)	-	-	-	-	73,395,842
(4,886)	\$	\$	\$	\$	\$ 73,395,842
-	-	-	-	-	13,251,313
(4,886)	\$	\$	\$	\$	\$ 60,144,529
-	\$	\$	\$	\$	\$ 28,376,915
-	(93,570)	(93,570)	-	-	4,153,301
-	(283,474)	(283,474)	-	-	24,223,614
-	199,904	199,904	-	-	11,645,290
-	-	-	-	-	96,892
-	-	-	8,334	-	163,774
-	-	-	-	(394,799)	587,519
-	-	-	-	-	-
-	-	-	-	-	-
(4,886)	\$	\$	\$	\$	\$ 23,428,440
-	(199,904)	(199,904)	(8,334)	394,799	

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

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1	380	Treatment and Disposal Equipment	\$ 5,585,470	\$ (700,000)	\$ 4,885,470

¹ Amounts may not reflect other adjustments.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 2 - COMPANY'S REBUTTAL ADJUSTMENTS

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
22	389	Other Plant & Miscellaneous Equipment	\$ 871,498	\$ 6,193	\$ 877,691
24	391	Transportation Equipment	\$ 33,497	\$ (7,110)	\$ 26,387
Totals:			\$ 904,995	\$ (917)	\$ 904,078

¹ Amounts may not reflect other adjustments.

The two adjustments above were made by the Company, after Staff Direct Testimony was filed, in response to RUCO Data Request 6.01 Supplemental. These reflect additional unrecorded retirements and reclassifications, which also include adjustments to three water plant accounts (#331, #341, and #345) which are reflected in the water schedules.

REFERENCES:

Column [A]: Company Filing
 Column [B]: Testimony DWC
 Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 3 - TRUE-UP OF PLANT IN SERVICE ACCRUALS

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1	354	Structures and Improvements	\$ 24,208,314	\$ 199,000	\$ 24,407,314
2	396	Communications Equipment	418,996	(3,555)	415,441
3			<u>\$ 24,627,310</u>	<u>\$ 195,445</u>	<u>\$ 24,822,755</u>

¹ Amounts may not reflect other adjustments.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 4 - PLANT ADDITIONS RECORDED IN WRONG YEARS

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1		Accumulated Depreciation	\$ 13,244,186	\$ 401	\$ 13,244,587

¹ Amounts may not reflect other adjustments.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 5 - RECLASSIFICATION OF PLANT IN SERVICE

LINE NO.	ACCT NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF RECOMMENDED	Depr Rate	Years (1/2 Conv.)	A/D Adjustment
1	354	Structure and Improvement	\$ 24,208,314	\$ (525,110)	\$ 23,683,204			
2	361	Collection Services - Gravity	31,886,680	41,564	31,928,244			
3	371	Flow Measuring Installation	-	36,618	36,618			
4	380	Effluent Pumping Equipment	799,481	61,670	861,151			
5	389	Wastewater Treatment and Disposal Equipment	5,585,470	470,592	6,056,062			
6	393	Other Plant & Misc Equipment	871,498	(43,005)	828,493			
7	394	Tools, Shop & Garage Equipment	145,631	(15,681)	129,950			
8	395	Lab Equipment	186,348	836	187,184			
9		Power Operated Equipment	28,090	(21,485)	6,605			
10		Total	\$ 63,711,512	\$ 6,000	\$ 63,717,512			
11		Accumulated Depreciation	\$ 16,514,086	\$ 18,194	\$ 16,532,280			
12								
13								
14		Staff's Removal of Plant and Accumulated Depreciation						
15	2009	354						
16	2011	354						
17	2009	380						
18	2009	389						
19	2012	393						
20	2012	395						
21		Total Removal of Plant and Accumulated Depreciation	\$	\$ (842,735)	\$ (75,282)			
22								
23								
24		Staff's Reclassification of Plant and Accumulated Depreciation						
25	2009	361						
26	2009	365						
27	2009	371						
28	2011	371						
29	2012	371						
30	2009	380						
31	2012	380						
32	2009	394						
33		Total Reclassification of Plant and Accumulated Depreciation	\$	\$ 648,735	\$ 93,475			
34		Net increase to accumulated depreciation						
35								
36								
37								

Note: The \$6,000 difference represents the reclassification of plant from the Water Division.

¹ Amounts may not reflect other adjustments.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 6 - PLANT NOT USED AND USEFUL

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]		
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED		
1	353	Land and Land Right	\$ 1,850,582	\$ (11,217)	\$ 1,839,365		
2							
3	354	Structures and Improvements	\$ 24,208,314	\$ (113,329)	\$ 24,094,985		
4							
5		Accumulated Depreciation	\$ 13,244,186	\$ (5,661)	\$ 13,238,525		
6							
7							
8		Staff's Removal of Plant and Accumulated Depreciation		PIS Adjustment	Years (1/2 Conv.)	Depr Rate	A/D Adjustment
9	2011	354 Structures and Improvment		\$ (113,329)	1.5	3.33%	\$ (5,661)

¹ Amounts may not reflect other adjustments.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 7 - REMOVAL OF DUPLICATE INVOICES

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]	
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED	
1	353	Land and Land Rights	\$ 1,850,582	\$ (3,409)	\$ 1,847,173	
2	355	Power Generation Equipment	603,332	(400)	602,932	
3	389	Other Plant & Misc. Equipment	871,498	(864)	870,634	
4		Total	<u>\$ 3,325,412</u>	<u>\$ (4,672)</u>	<u>\$ 3,320,740</u>	
5						
6		Accumulated Depreciation	<u>\$ 16,514,086</u>	<u>\$ (214)</u>	<u>\$ 16,513,872</u>	
7						
8						
9		Staff's Calculation	PIS Adjustment	Years (1/2 Conv.)	Depr Rate	A/D Adjustment
10	355	Power Generation Equipment	(400)	3.5	5.00%	\$ (70)
11						
12	389	Other Plant & Misc. Equipment	<u>\$ (864)</u>	<u>2.5</u>	<u>6.67%</u>	<u>\$ (144)</u>

¹ Amounts may not reflect other adjustments.

REFERENCES:

Column [A]: Company Filing
Column [B]: Testimony DWC
Column [C]: Column [A] + Column [B]

Litchfield Park Service Company - Wastewater Division
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Test Year Ended: December 31, 2012

Surrebuttal Schedule DWC-WW12

RATE BASE ADJUSTMENT NO. 8 - NOT USED

RATE BASE ADJUSTMENT NO. 9 RECALCULATION OF CONTRIBUTIONS IN AID OF CONSTRUCTION

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1		Contributions in Aid of Construction	\$ 28,470,485	\$ (93,570)	\$ 28,376,915
2					
3		Amortization of Contributions in Aid of Construction	\$ 4,446,775	\$ (293,474)	\$ 4,153,301

¹ Amounts may not reflect other adjustments.

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Testimony DWC
- Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 10 - CUSTOMER DEPOSITS

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1		Customer Deposits	\$ 155,440	\$ 8,334	\$ 163,774

Staff Calculation:

13th month average of customer deposits	\$ 311,436
December 31th amount	295,587
Increase over December 31 test year amount	<u>\$ 15,849</u>
Allocated to Water	\$ 7,514
Allocated to Wastewater	8,334
Total	<u>\$ 15,849</u>

¹ Amounts may not reflect other adjustments.

REFERENCES:

Column [A]: Company Filing
 Column [B]: Testimony DWC
 Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 11 - ACCUMULATED DEFERRED INCOME TAXES

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1		Deferred Income Taxes	\$ 982,318	\$ (394,799)	\$ 587,519

¹ Amounts may not reflect other adjustments.

REFERENCES:

Column [A]: Company Filing

Column [B]: Testimony DWC

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

OPERATING INCOME STATEMENT - ADJUSTED TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY ADJUSTED TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	REVENUES:					
2	Metered Water Sales	\$ 9,853,383	\$ -	\$ 9,853,383	\$ (45,887)	\$ 9,807,496
3	Water Sales-Unmetered	-	-	-	-	-
4	Other Operating Revenue	508,220	-	508,220	-	508,220
5	Intentionally Left Blank	-	-	-	-	-
6	Total Operating Revenues	<u>\$ 10,361,603</u>	<u>\$ -</u>	<u>\$ 10,361,603</u>	<u>\$ (45,887)</u>	<u>\$ 10,315,716</u>
7						
8	OPERATING EXPENSES:					
9	Salaries and Wages	\$ 1,168,151	\$ -	\$ 1,168,151	\$ -	\$ 1,168,151
10	Purchased Water	26,656	-	26,656	-	26,656
11	Purchased Power	601,635	-	601,635	-	601,635
12	Sludge Removal Expense	234,893	3,410	238,303	-	238,303
13	Chemicals	357,986	-	357,986	-	357,986
14	Materials and Supplies	86,994	-	86,994	-	86,994
15	Management Services - US Liberty Water	1,469,058	(32,398)	1,436,660	-	1,436,660
16	Management Services - Corporate	698,951	-	698,951	-	698,951
17	Outside Services - Accounting	2,161	-	2,161	-	2,161
18	Outside Services - Engineering	-	-	-	-	-
19	Outside Services- Other	222,303	-	222,303	-	222,303
20	Outside Services- Legal	25,746	-	25,746	-	25,746
21	Water Testing	57,735	(23,347)	34,388	-	34,388
22	Rents - Office	40,007	-	40,007	-	40,007
23	Equipment Rental	3,076	-	3,076	-	3,076
24	Transportation Expenses	26,465	-	26,465	-	26,465
25	Insurance - General Liability	57,823	-	57,823	-	57,823
26	Insurance - Vehicle	11,506	-	11,506	-	11,506
27	Reg. Comm. Exp. - Other	14,189	-	14,189	-	14,189
28	Reg. Comm. Exp. - Rate Case	74,200	-	74,200	-	74,200
29	Interest on Customer Deposits	-	-	5,346	-	5,346
30	Miscellaneous Expense	77,293	-	77,293	-	77,293
31	Bad Debt Expense	45,215	-	45,215	-	45,215
32	Depreciation and Amortization Expense	1,598,765	(14,346)	1,584,419	-	1,584,419
33	Property Taxes	576,026	(28,801)	547,225	(810)	546,415
34	Income Tax	1,013,153	36,231	1,049,383	(17,260)	1,032,123
35	Total Operating Expenses	<u>\$ 8,489,987</u>	<u>\$ (59,251)</u>	<u>\$ 8,436,082</u>	<u>\$ (18,070)</u>	<u>\$ 8,418,013</u>
36	Operating Income (Loss)	<u>\$ 1,871,616</u>	<u>\$ 59,251</u>	<u>\$ 1,925,521</u>	<u>\$ (27,817)</u>	<u>\$ 1,897,704</u>

References:

Column (A): Company Schedule C-1
Column (B): Schedule DWC-W17
Column (C): Column (A) + Column (B)
Column (D): Schedules DWC-WW23 and DWC-WW24
Column (E): Column (C) + Column (D)

SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	(A) COMPANY AS FILED	(B) Water Testing Expense ADJ.#1	(C) Corporate Allocation True-Up ADJ.#2	(D) Corporate Allocation Expense ADJ.#3	(E) Interest on Customer Deposits ADJ.#4	(F) Depreciation Expense ADJ.#5	(G) Property Tax Expense ADJ.#6	(H) Income Tax Expense ADJ.#7	(I) STAFF ADJUSTED
		Ref. Sch. JMM-WW18	Ref. Sch. JMM-WW19	Ref. Sch. JMM-WW20	Ref. Sch. JMM-WW21	Ref. Sch. JMM-WW22	Ref. Sch. JMM-WW23	Ref. Sch. JMM-WW24		
1	REVENUES:									
2	Metered Water Sales	9,863,383								9,863,383
3	Water Sales-Urmetred									
4	Other Operating Revenue	508,220								508,220
5	Intentionally Left Blank									
6	Total Operating Revenues	10,361,603								10,361,603
7										
8	OPERATING EXPENSES:									
9	Salaries and Wages	1,168,151								1,168,151
10	Purchased Water	26,656								26,656
11	Purchased Power	601,635								601,635
12	Sludge Removal Expense	234,893	3,410							238,303
13	Chemicals	357,986								357,986
14	Materials and Supplies	86,994								86,994
15	Management Services - US Liberty Water	1,436,660		(8,420)	(23,978)					1,436,660
16	Management Services - Corporate	688,951								688,951
17	Outside Services - Accounting	2,161								2,161
18	Outside Services - Engineering									
19	Outside Services-Other	222,303								222,303
20	Outside Services-Legal	25,746								25,746
21	Water Testing	57,735	(23,347)							34,388
22	Rents - Office	40,007								40,007
23	Equipment Rental	3,076								3,076
24	Transportation Expenses	26,465								26,465
25	Insurance - General Liability	57,823								57,823
26	Insurance - Vehicle	11,506								11,506
27	Reg. Comm. Exp. - Other	14,189								14,189
28	Reg. Comm. Exp. - Rate Case	74,200								74,200
29	Interest on Customer Deposits				5,346					5,346
30	Miscellaneous Expense	77,293								77,293
31	Bad Debt Expense	45,215								45,215
32	Depreciation and Amortization Expense	1,598,765								1,598,765
33	Property Taxes	576,026				(14,346)				561,680
34	Income Tax	1,013,153						36,231		1,049,383
35	Total Operating Expenses	8,489,987	(19,937)	(8,420)	(23,978)	5,346	(14,346)	(28,801)	36,231	8,490,083
36	Operating Income (Loss)	1,871,616	19,937	8,420	23,978	(5,346)	14,346	28,801	(4)	1,925,520

Litchfield Park Service Company - Wastewater Division
Docket Nos. W-01428A-13-0043 and SW-01428A-13-0042
Test Year Ended: December 31, 2012

Surrebuttal Schedule DWC-WW18

OPERATING INCOME ADJUSTMENT NO. 1 - WATER TESTING EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1	Sludge Removal Expense	\$ 234,893	\$ 3,410	\$ 238,303
2				
3	Water Testing Expense	\$ 57,735	\$ (23,347)	\$ 34,388

¹ Amounts may not reflect other adjustments.

REFERENCES:

Column [A]: Company Filing

Column [B]: Testimony DWC

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

OPERATING INCOME ADJUSTMENT NO. 2 - CORPORATE EXPENSE TRUE-UP

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1	Management Services - US Liberty Water	\$ 1,469,058	\$ (8,420)	\$ 62,478

Staff's Calculation

Accrual Adjustment	\$	29,297	
Allocated to Water		28.74%	\$ 8,420
Allocated to Wastewater		26.87%	\$ 7,872

¹ Amounts may not reflect other adjustments.

REFERENCES:

Column [A]: Company Filing
 Column [B]: Testimony DWC
 Column [C]: Column [A] + Column [B]

Litchfield Park Service Company - Wastewater Division
Docket Nos. W-01428A-13-0043 and SW-01428A-13-0042
Test Year Ended: December 31, 2012

Surrebuttal Schedule DWC-WW20

OPERATING INCOME ADJUSTMENT NO. 3 - CORPORATE ALLOCATION EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF RECOMMENDED
1	Management Services - US Liberty Water	\$ 1,469,058	\$ (23,978)	\$ 62,478

¹ Amounts may not reflect other adjustments.

REFERENCES:

Column [A]: Company Filing

Column [B]: Testimony DWC

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

OPERATING INCOME ADJUSTMENT NO. 4 - INTEREST ON CUSTOMER DEPOSITS

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF ¹ RECOMMENDED
1	Interest on Customer Deposits	\$ -	\$ 5,346	\$ 5,346

Staff's Calculation

Allocated to Water	\$ 5,346
Allocated to Wastewater	5,931
Total	<u>\$ 11,277</u>

¹ Amounts may not reflect other adjustments.

REFERENCES:

Column [A]: Company Filing
 Column [B]: Testimony DWC
 Column [C]: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 5 - DEPRECIATION EXPENSE ON TEST YEAR PLANT

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]	[D]	[E]
			PLANT In SERVICE Per Staff	NonDepreciable or Fully Depreciated PLANT	DEPRECIABLE PLANT (Col A - Col B)	DEPRECIATION RATE	DEPRECIATION EXPENSE (Col C x Col D)
1	351	Organization	\$ -	\$ 100	\$ (100)	0.00%	\$ -
2	352	Franchises	\$ -	\$ -	\$ -	0.00%	\$ -
3	353	Land and Land Rights	\$ 1,835,956	\$ 1,284,595	\$ 551,361	0.00%	\$ -
4	354	Structures and Improvements	\$ 23,768,875	\$ -	\$ 23,768,875	3.33%	\$ 791,504
5	355	Power Generation Equipment	\$ 602,932	\$ -	\$ 602,932	5.00%	\$ 30,147
6	360	Collection Services - Force	\$ 1,162,597	\$ -	\$ 1,162,597	2.00%	\$ 23,252
7	361	Collection Services - Gravity	\$ 31,928,244	\$ -	\$ 31,928,244	2.00%	\$ 638,565
8	362	Special Collecting Structures	\$ -	\$ -	\$ -	2.00%	\$ -
9	363	Services to Customers	\$ 76,190	\$ -	\$ 76,190	2.00%	\$ 1,524
10	364	Flow Measuring Devices	\$ 46,210	\$ -	\$ 46,210	10.00%	\$ 4,621
11	365	Flow Measuring Installations	\$ 36,618	\$ -	\$ 36,618	2.00%	\$ 732
12	366	Reuse Services	\$ 4,057,660	\$ -	\$ 4,057,660	2.00%	\$ 81,153
13	367	Reuse Meters and Installations	\$ 44,753	\$ -	\$ 44,753	8.33%	\$ 3,728
14	370	Receiving Wells	\$ 860,393	\$ -	\$ 860,393	3.33%	\$ 28,651
15	371	Effluent Pumping Equipment	\$ 861,151	\$ -	\$ 861,151	12.50%	\$ 107,644
16	374	Reuse Trans. And Dist. System	\$ 62,286	\$ -	\$ 62,286	2.50%	\$ 1,557
17	375	Resuse T&D	\$ 420,334	\$ -	\$ 420,334	2.50%	\$ 10,508
18	380	Treatment and Disposal Equipment	\$ 5,356,062	\$ -	\$ 5,356,062	5.00%	\$ 267,803
19	381	Plant Sewers	\$ 47,802	\$ -	\$ 47,802	5.00%	\$ 2,390
20	382	Outfall Sewer Lines	\$ 343,681	\$ -	\$ 343,681	3.33%	\$ 11,445
21	389	Other Plant & Misc. Equipment	\$ 833,822	\$ -	\$ 833,822	6.67%	\$ 55,616
22	390	Office Furniture & Equipment	\$ 275,740	\$ -	\$ 275,740	6.67%	\$ 18,392
23	391	Transportation Equipment	\$ 26,387	\$ -	\$ 26,387	20.00%	\$ 5,277
24	392	Stores Equipment	\$ 8,968	\$ -	\$ 8,968	4.00%	\$ 359
25	393	Tools, Shop & Garage Equipment	\$ 129,950	\$ -	\$ 129,950	5.00%	\$ 6,497
26	394	Labratory Equipment	\$ 187,184	\$ -	\$ 187,184	10.00%	\$ 18,718
27	395	Power Operated Equipment	\$ 6,605	\$ -	\$ 6,605	5.00%	\$ 330
28	396	Communication Equipment	\$ 415,441	\$ -	\$ 415,441	10.00%	\$ 41,544
29	398	Other Tangible Plant	\$ -	\$ -	\$ -	10.00%	\$ -
30		Total Plant	\$ 73,395,842	\$ 1,284,695	\$ 72,111,147		\$ 2,151,958
31							
32		Plus: Post Test Year Plant					
33	380	Treatment and Disposal Equipment	\$ 700,000	\$ -	\$ 700,000	5.00%	\$ -
37							
39		Less: Amortization of Contributions					
40	361	Collection Sewers Gravity	\$ 24,892,778			2.00%	\$ (497,856)
41	363	Customer Services	\$ 3,484,137			2.00%	\$ (69,683)
45			\$ 28,376,915				\$ (567,538)
46							
47		Total Depreciation Expense					\$ 1,584,419
48							
49		Depreciation Expense - Company					\$ 1,598,765
50							
51		Staff's Adjustment to Depreciation Expense					\$ (14,346)

References:

Column [A]: Schedule DWC-WW16
Column [B]: From Column [A]
Column [C]: Column [A] - Column [B]
Column [D]: Engineering Staff Report
Column [E]: Column [C] x Column [D]

OPERATING INCOME ADJUSTMENT NO. 6 - PROPERTY TAX EXPENSE

LINE NO.	Property Tax Calculation	[A]	[B]
		STAFF AS ADJUSTED	STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues	\$ 10,361,603	\$ 10,361,603
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	20,723,206	\$ 20,723,206
4	Staff Recommended Revenue, Per Schedule DWC-W1	10,361,603	\$ 10,315,716
5	Subtotal (Line 4 + Line 5)	31,084,809	31,038,922
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	10,361,603	\$ 10,346,307
8	Department of Revenue Mutilplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	20,723,206	\$ 20,692,615
10	Plus: 10% of CWIP -	-	-
11	Less: Net Book Value of Licensed Vehicles	50,681	\$ 50,681
12	Full Cash Value (Line 9 + Line 10 - Line 11)	20,672,525	\$ 20,641,934
13	Assessment Ratio	19.0%	19.0%
14	Assessment Value (Line 12 * Line 13)	3,927,780	\$ 3,921,967
15	Composite Property Tax Rate (Per Company Schedule)	13.9322%	13.9322%
16			\$ -
17	Staff Test Year Adjusted Property Tax (Line 14 * Line 15)	\$ 547,225	
18	Company Proposed Property Tax	576,026	
19			
20	Staff Test Year Adjustment (Line 16-Line 17)	<u>\$ (28,801)</u>	
21	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		\$ 546,415
22	Staff Test Year Adjusted Property Tax Expense (Line 16)		\$ 547,225
23	Increase in Property Tax Expense Due to Increase in Revenue Requirement		<u>\$ (810)</u>
24			
25	Increase to Property Tax Expense		\$ (810)
26	Increase in Revenue Requirement		(45,887)
27	Increase to Property Tax per Dollar Increase in Revenue (Line19/Line 20)		1.764740%

OPERATING INCOME ADJUSTMENT NO. 7 - TEST YEAR INCOME TAXES

LINE NO.	DESCRIPTION		Test Year
1			
2			
3			
4	<u>Calculation of Income Tax:</u>		
5	Revenue (Schedule DWC-VWV1)	\$	10,361,603
6	Operating Expenses Excluding Income Taxes	\$	7,386,699
7	Synchronized Interest (L17)	\$	234,284
8	Arizona Taxable Income (L1 - L2 - L3)	\$	2,740,619
9	Arizona State Income Tax Rate		6.5000%
10	Arizona Income Tax (L4 x L5)	\$	178,140
11	Federal Taxable Income (L4 - L6)	\$	2,562,479
12	Federal Tax on First Income Bracket (\$1 - \$50,000) @ 15%	\$	7,500
13	Federal Tax on Second Income Bracket (\$51,001 - \$75,000) @ 25%	\$	6,250
14	Federal Tax on Third Income Bracket (\$75,001 - \$100,000) @ 34%	\$	8,500
15	Federal Tax on Fourth Income Bracket (\$100,001 - \$335,000) @ 39%	\$	91,650
16	Federal Tax on Fifth Income Bracket (\$335,001 - \$10,000,000) @ 34%	\$	757,343
17	Total Federal Income Tax	\$	871,243
18	Combined Federal and State Income Tax (L44 + L51)	\$	1,049,383
19			
20			
21	<u>Calculation of Interest Synchronization:</u>		
22	Rate Base (Schedule DWC-W4)	\$	23,428,440
23	Weighted Average Cost of Debt		1.10%
24	Synchronized Interest (L16 x L17)	\$	257,713
25			
26			
27	Income Tax - Per Staff	\$	1,049,383
28	Income Tax - Per Company	\$	1,013,153
29	Staff Adjustment	\$	36,231

Monthly Charge for:	Present	Company Proposed Rates	Staff Recommended Rates
Monthly Residential Service	\$ 38.99	\$ 41.62	38.83
Low Income Residential Service	33.14	35.38	33.01
Multi-Unit Housing - Monthly per Unit	36.19	38.63	35.99
Commercial:			
Small Commercial - Monthly Service	65.93	70.37	65.56
Measured Service:			
Regular Domestic:	36.91	39.40	36.71
Monthly Service Charge	3.22	3.44	3.21
Commodity Charge per 1,000 gallons			
Restaurant, Motels, Grocery Stores & Dry Cleaning Estab.1			
Monthly Service Charge	36.91	39.40	36.71
Commodity Charge per 1,000 gallons	4.30	4.59	4.28
Wigwam Resort:			
Monthly Rate - Per Room	36.19	39.40	35.99
Main Hotel Facilities - Per Month	1,433.30	1,529.90	1,425.41
Schools - Monthly Service Rates:			
Elementary Schools	974.64	1,040.33	969.28
Middle Schools	1,146.64	1,223.92	1,140.33
High Schools	1,146.64	1,223.92	1,140.33
Community College	1,777.29	1,897.08	1,767.51
Effluent2:			
1 Motels without restuarants charged multi-unit monthly rate.			
2 Market Rate - Maximum effluent rate shall not exceed \$430 per acre foot based on a potable water rate of \$1.32 per thousand gallons.			
Late Payment Penalty			
Other Service Charges:			
Establishment (Regular Hours) per Rule R14-2-603D (a)	\$ 20.00	\$ 20.00	\$ 20.00
Establishment (After Hours) per Rule R14-2-603D (a)	\$ 40.00	\$ 40.00	\$ 40.00
Re-Establishment of Service per Rule R14-2-603D (a)	(b)	(b)	(b)
Reconnection (Regular Hours) per Rule R14-2-603D (a)	\$ 50.00	\$ 50.00	\$ 50.00
Reconnection (After Hours) per Rule R14-2-603D (a)	\$ 65.00	\$ 65.00	\$ 65.00
NSF Check, per Rule R14-2-608E (a)	\$ 25.00	\$ 25.00	\$ 25.00
Deferred Payment, Per Month	1.50%	1.50%	1.50%
Late Charge	(c)	(c)	(c)
Service Calls - Per Hour/After Hours(d)	\$ 40.00	\$ 40.00	\$ 40.00
Deposit Requirement	(e)	(e)	(e)
Deposit Interest	3.50%	3.50%	3.50%
Service Lateral Connection Charge- All Sizes	(f)	(f)	(f)
Main Extension Tariff, per Rule R14-2-606B	(g)	(g)	(g)

(a) Service charges for customers taking both water and sewer service are not duplicative.
(b) Minimum charge times number of full months off the system, per Rule R14-2-603D.
(c) Per Rule R14-2-608F. Greater of \$5.00 or 1.5% of unpaid balance.
(d) No charge for service calls during normal working hours.
(e) Per ACC Rules R14-2-603B Residential - two times the average bill.
Non-residential - two and one-half times the average bill.
(f) At cost. Customer/Developer shall install or cause to be installed all Service Laterals as a non-refundable contribution-in-aid of construction.
(g) All Main Extensions shall be completed at cost and shall be treated as non-refundable contribution-in-aid of construction.

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

Company Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	-	\$ 38.99	\$ 41.62	\$ 2.63	6.75%
Median Usage	-	38.99	41.62	\$ 2.63	6.75%
Staff Recommended					
Average Usage	-	\$ 38.99	\$ 38.83	\$ (0.16)	-0.41%
Median Usage	-	38.99	38.83	\$ (0.16)	-0.41%

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

Gallons	Company Proposed		%	Staff Recommended		
	Present	3/4"		3/4"	%	
	Minimum Charge	\$ 38.99	Minimum Charge	\$ 41.62	Minimum Charge	\$ 38.83
	1st Tier Rate	-	1st Tier Rate	-	1st Tier Rate	-
	1st Tier Breakover	-	1st Tier Breakover	-	1st Tier Breakover	-
	2nd Tier Rate	-	2nd Tier Rate	-	2nd Tier Rate	-
	2nd Tier Breakover	-	2nd Tier Breakover	-	2nd Tier Breakover	-
	3rd Tier Rate	-	3rd Tier Rate	-	3rd Tier Rate	-
Consumption	Rates	Rates	Increase	Rates	Increase	
-	\$ 38.99	\$ 41.62	6.75%	\$ 38.83	-0.41%	
1,000	38.99	41.62	6.75%	38.83	-0.41%	
2,000	38.99	41.62	6.75%	38.83	-0.41%	
3,000	38.99	41.62	6.75%	38.83	-0.41%	
4,000	38.99	41.62	6.75%	38.83	-0.41%	
5,000	38.99	41.62	6.75%	38.83	-0.41%	
6,000	38.99	41.62	6.75%	38.83	-0.41%	
7,000	38.99	41.62	6.75%	38.83	-0.41%	
8,000	38.99	41.62	6.75%	38.83	-0.41%	
9,000	38.99	41.62	6.75%	38.83	-0.41%	
10,000	38.99	41.62	6.75%	38.83	-0.41%	
11,000	38.99	41.62	6.75%	38.83	-0.41%	
12,000	38.99	41.62	6.75%	38.83	-0.41%	
13,000	38.99	41.62	6.75%	38.83	-0.41%	
14,000	38.99	41.62	6.75%	38.83	-0.41%	
15,000	38.99	41.62	6.75%	38.83	-0.41%	
16,000	38.99	41.62	6.75%	38.83	-0.41%	
17,000	38.99	41.62	6.75%	38.83	-0.41%	
18,000	38.99	41.62	6.75%	38.83	-0.41%	
19,000	38.99	41.62	6.75%	38.83	-0.41%	
20,000	38.99	41.62	6.75%	38.83	-0.41%	
25,000	38.99	41.62	6.75%	38.83	-0.41%	
30,000	38.99	41.62	6.75%	38.83	-0.41%	
35,000	38.99	41.62	6.75%	38.83	-0.41%	
40,000	38.99	41.62	6.75%	38.83	-0.41%	
45,000	38.99	41.62	6.75%	38.83	-0.41%	
50,000	38.99	41.62	6.75%	38.83	-0.41%	
75,000	38.99	41.62	6.75%	38.83	-0.41%	
100,000	38.99	41.62	6.75%	38.83	-0.41%	

BEFORE THE ARIZONA CORPORATION COMMISSION

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

IN THE MATTER OF THE APPLICATION OF)
LITCHFIELD PARK SERVICE COMPANY,)
AN ARIZONA CORPORATION, FOR A)
DETERMINATION OF THE FAIR VALUE)
OF ITS UTILITY PLANTS AND PROPERTY)
AND FOR INCREASES IN ITS WASTEWATER)
RATES AND CHARGES FOR UTILITY)
SERVICE BASED THEREON.)

DOCKET NO. SW-01428A-13-0042

IN THE MATTER OF THE APPLICATION OF)
LITCHFIELD PARK SERVICE COMPANY,)
AN ARIZONA CORPORATION, FOR A)
DETERMINATION OF THE FAIR VALUE)
OF ITS UTILITY PLANTS AND PROPERTY)
AND FOR INCREASES IN ITS WATER RATES)
AND CHARGES FOR UTILITY SERVICE)
BASED THEREON.)

DOCKET NO. W-01427A-13-0043

SURREBUTTAL
TESTIMONY
OF
JOHN A. CASSIDY
PUBLIC UTILITIES ANALYST
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

NOVEMBER 12, 2013

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**EXECUTIVE SUMMARY
LITCHFIELD PARK SERVICE COMPANY
DOCKET NO. SW-01428A-13-0042, ET AL.**

The surrebuttal testimony of Staff witness John A. Cassidy addresses the following issues:

Capital Structure – Staff recommends that the Commission adopt a capital structure for Litchfield Park Service Company (“Company”) for this proceeding consisting of 15.9 percent debt and 84.1 percent equity.

Cost of Equity – Staff recommends that the Commission adopt an 8.4 percent return on equity (“ROE”) for the Company. Staff’s estimated ROE for the Company is based on the 8.4 percent average of its discounted cash flow method (“DCF”) and capital asset pricing model (“CAPM”) cost of equity methodology estimates for the sample companies of 8.8 percent for the DCF and 8.0 percent for the CAPM. Staff’s recommended ROE includes an upward economic assessment adjustment of 60 basis points, and a downward financial risk adjustment of 60 basis points.

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

Overall Rate of Return – Staff recommends that the Commission adopt an 8.1 percent overall rate of return.

Mr. Bourassa’s Testimony – The Commission should reject the Company’s proposed 9.7 percent ROE for the following reasons:

Mr. Bourassa’s primary Future Growth DCF model relies exclusively on analysts’ forecasts of earnings per share growth, and the estimates derived from his Future Growth DCF model are effectively assigned a 75 percent weight to his overall DCF estimate. Mr. Bourassa’s historical dividend growth estimate in his Past and Future Growth DCF model is inflated through the use of growth in average annual share price as a proxy to estimate dividend growth. Mr. Bourassa’s CAPM estimates are inflated due to use of a forecasted risk-free rate. Mr. Bourassa’s 9.7 percent recommended cost of equity includes an upward 50 basis point small company risk premium.

1 **I. INTRODUCTION**

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

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

6
7 **Q. Are you the same John A. Cassidy who filed direct testimony in this case?**

8 A. Yes, I am.

9
10 **Q. What is the purpose of your surrebuttal testimony in this rate proceeding?**

11 A. The purpose of my surrebuttal testimony is to respond to the cost of capital rebuttal
12 testimony of Company witnesses, Thomas J. Bourassa ("Mr. Bourassa's Rebuttal") and
13 Wendell Licon ("Mr. Licon's Rebuttal").

14
15 **Q. Please explain how Staff's surrebuttal testimony is organized.**

16 A. Staff's surrebuttal testimony is presented in four sections. Section I is this introduction.
17 Section II presents Staff's comments on the rebuttal testimony of the Company's cost of
18 capital witness, Mr. Bourassa. Section III presents Staff's comments on the rebuttal
19 testimony of the Company's cost of capital witness, Mr. Licon. Lastly, Section IV
20 presents Staff's recommendations.

1 **II. STAFF RESPONSE TO COMPANY'S COST OF CAPITAL WITNESS MR.**
2 **THOMAS J. BOURASSA**

3 **Q. Please summarize the capital structure, cost of equity and overall rate of return**
4 **proposed in Mr. Bourassa's rebuttal.**

5 A. Mr. Bourassa's rebuttal continues to propose a capital structure consisting of 15.87
6 percent debt and 84.13 percent equity. However, Mr. Bourassa now adopts Staff's 6.4
7 percent cost of debt, and he has lowered his recommended cost of equity to 9.70 percent.
8 As a result of these changes, Mr. Bourassa's rebuttal testimony now proposes a weighted
9 average cost of capital for LPSCO of 9.18 percent.

10
11 **Q. How does Staff respond to Mr. Bourassa's criticism of Staff's use of book values,**
12 **rather than market values, in the calculation of Staff's Hamada financial risk**
13 **adjustment?**

14 A. Although, the Hamada adjustment finds its theoretical basis in market capital structures, a
15 market based capital structure is not the issue in this proceeding. All cost of equity
16 estimation methods require making assumptions, and the application of a Hamada
17 financial risk adjustment based upon book values is a reasonable example of just such an
18 assumption.

19
20 **Q. Does Staff have any comment regarding Mr. Bourassa's proposed 50 basis point**
21 **small company risk premium adjustment?**

22 A. Yes. While Staff would agree with the general proposition that smaller companies are
23 riskier than larger companies, empirical research has demonstrated that a small company
24 risk premium adjustment to the cost of equity is unwarranted for regulated utilities.

1 Annie Wong, of Western Connecticut State University, conducted a study on utility
2 stocks to determine if the so-called size effect exists in the utility industry, and she writes
3 as follows:

4 The fact that the two samples show different, though weak, results
5 indicates that utility and industrial stocks do not share the same
6 characteristics. First, given firm size, utility stocks are consistently less
7 risky than industrial stocks. Second, industrial betas tend to decrease with
8 firm size but utility betas do not. These findings may be attributed to the
9 fact that all public utilities operate in an environment with regional
10 monopolistic power and regulated financial structure. As a result, the
11 business and financial risks are very similar among the utilities regardless
12 of their size. Therefore, utility betas would not necessarily be expected to
13 be related to firm size.

14
15 The object of this study is to examine if the size effect exists in the utility
16 industry. After controlling for equity values, there is some weak evidence
17 that firm size is a missing factor from the CAPM for the industrial but not
18 for the utility stocks. *This implies that although the size phenomenon has*
19 *been strongly documented for industrials, the findings suggest that there is*
20 *no need to adjust for the firm size in utility regulations.* [emphasis added].¹
21

22 To underscore this point, Paschall and Hawkins write as follows:

23 A size premium does not automatically apply in every case. Each privately
24 held company should be analyzed to determine if a size premium is
25 appropriate in its particular case. There can be unusual circumstances
26 where a small company has risk characteristics that make it far less risky
27 than the average company, warranting the use of a very low equity risk
28 premium. One possible example of this is a private water utility
29 (monopoly situation, very low risk, near-guarantee of payments).²

¹ Annie Wong, "Utility Stock and the Size Effect: An Empirical Analysis," *Journal of the Midwest Finance Association*, (1993), p.98.

² Michael A. Paschall and George B. Hawkins, "Do Smaller Companies Warrant a Higher Discount Rate for Risk?: The 'Size Effect' Debate," *CCH Business Valuation Alert*, Vol. 1, Issue No. 2, December 1999.

1 **Q. Does Staff have additional evidence to demonstrate that Mr. Bourassa's proposed**
2 **small company risk premium adjustment is without merit?**

3 A. Yes, and from a source which he, himself, relies upon for purposes of his Risk Premium
4 Build-Up cost of equity estimation methodology.³ The 2012 *Duff & Phelps* Risk Premium
5 Study includes a discussion of the size effect and the possible explanations for small
6 companies having achieved historically higher returns than larger companies, and reads as
7 follows:

8
9 Traditionally, small companies are believed to have greater required rates
10 of return than large companies because small companies are inherently
11 riskier. It is not clear, however, whether this is due to size itself, or
12 another factor closely related to size. The qualification that Banz noted in
13 1981 remains pertinent today:

14
15 *"It is not known whether size [as measured by market capitalization-ed.]*
16 *per se is responsible for the effect or whether size is just a proxy for one or*
17 *more true unknown factors correlated with size."*

18
19 Practitioners know that small firms measured in terms of fundamental size
20 measures such as assets or net income have risk characteristics that differ
21 from those of large firms. For example, *potential competitors* (emphasis
22 added) can more easily enter the "real" market (market for the goods
23 and/or services offered to customers) of the small firm and "take" the
24 value that the small firm has built. Large companies have more resources
25 to better *adjust to competition* (emphasis added) and avoid distress in
26 economic slowdowns. Small firms undertake less research and
27 development and spend less on advertising than large firms, giving them
28 less control over product demand and *potential competition* (emphasis
29 added). Small firms have fewer resources to *fend off competition*
30 (emphasis added) and redirect themselves after changes in the market
31 occur. Smaller firms may have fewer analysts following them, and less
32 information available about them. Smaller firms may have lesser access to
33 capital, thinner management depth, greater dependency on a few large
34 customers, and may be less liquid than their counterparts. Each of these
35 characteristics would tend to increase the rate of return that an investor
36 might demand for investing in stocks of small companies rather than
37 investing in stocks of large companies."⁴
38

³ See Bourassa Direct, p.41, footnote 13.

1 **Q. How has the Commission previously ruled on the issue of firm size and whether it**
2 **warrants a risk premium adjustment to the cost of equity?**

3 A. As discussed in Staff's direct testimony,⁵ the Commission has previously ruled that the
4 'firm size phenomenon' does not exist for regulated utilities, and thus there is no need to
5 make an upward risk adjustment to the cost of equity for small firm size in utility
6 regulation.

7 **III. STAFF RESPONSE TO COMPANY'S COST OF CAPITAL WITNESS MR.**
8 **WENDELL LICON**

9 **Q. How does Staff respond to Mr. Licon's assertion that the ROE recommendations**
10 **derived from Staff's cost of capital model are "unreasonable," and that the**
11 **calculations supporting Staff's recommended ROE are "biased toward achieving a**
12 **low cost of capital as the end result?"**⁶

13 A. Staff respectfully disagrees with Mr. Licon's characterization of Staff's model. As noted
14 in Staff's direct testimony, the cost of equity is determined by investor activity in the
15 market, wherein it manifests itself as the investors' expected rate of return on investments
16 of similar risk.⁷ Staff's model is market based;⁸ thus, the estimates derived therefrom are
17 reflective of investor expectations of the market cost of equity. Thus, because Staff's
18 model is market based and reflective of investor expectations, Mr. Licon's assertion that
19 Staff's recommended ROE is "unreasonable" is without merit, as is his suggestion that
20 Staff's underlying calculations are "biased toward achieving a low cost of capital as the
21 end result."

⁴ *Duff & Phelps* 2012 Risk Premium Study, p. 28.

⁵ See Cassidy Direct, pp. 46-47.

⁶ See Licon Rebuttal, p. 4, lines 17-22.

⁷ See Cassidy Direct, p. 9, lines

⁸ Staff's model incorporates estimates derived from two DCF models (Constant Growth DCF and Multi-Stage DCF) and two CAPM models (Historical MRP CAPM and Current MRP CAPM). Both the DCF and CAPM are widely recognized as being market based cost of equity estimation models.

1 **Q. In his rebuttal testimony, does Mr. Licon cite examples of what he considers to be**
2 **evidence that Staff's model is biased toward achieving a low cost of capital as the end**
3 **result?**

4 A. Yes. Mr. Licon is critical of Staff's CAPM model, stating that he found "inconsistent
5 applications of the CAPM model used by Staff."⁹ Specifically, Mr. Licon identified what
6 he termed, "three simple errors," to illustrate his point. These include 1) use of an
7 unrealistic risk-free rate, 2) an incorrect use of the Historical Market Risk Premium
8 ("MRP"),¹⁰ and 3) an incorrect application of the Hamada adjustment used to calculate
9 Staff's financial risk adjustment.¹¹

10
11 **Q. In regard to the first "error" noted above, what is Mr. Licon's stated criticism of the**
12 **risk free rate used by Staff in its CAPM model?**

13 A. In essence, Mr. Licon asserts that Staff's use of an intermediate-term proxy for the risk-
14 free rate (i.e. average spot yield on 5-, 7- and 10-year U.S. Treasury securities) in its
15 historical market risk premium CAPM results in a mismatch between the investment time
16 horizon in question (i.e. 30 year average depreciable life of LPSCO's plant assets), thus
17 serving to downwardly bias Staff's cost of equity estimate.

18
19 **Q. How does Staff respond to Mr. Licon's criticism of Staff's use of an intermediate-**
20 **term proxy for the risk-free rate in Staff's Historical MRP CAPM.**

21 A. As the relevant risk/return consideration when using the CAPM relates to the equity
22 investors holding period, not the depreciable life of the asset(s). As noted in Staff's direct

⁹ See Licon Rebuttal, p. 4, lines 22-23.

¹⁰ Upon review of his rebuttal testimony, it appears Mr. Licon's criticism relates to the market risk premium component of Staff's current MRP CAPM, and not Staff's historical MRP CAPM.

¹¹ See Licon Rebuttal, p. 5, lines 12-15.

1 testimony,¹² the CAPM is used to determine the prices of equity securities in a competitive
2 market, and describes the relationship between an equity security's investment risk and its
3 market rate of return. Furthermore, the CAPM is assumed to be a single holding period
4 model.¹³ Accordingly, Staff incorporates an intermediate-term proxy for the risk-free rate
5 in its historical MRP CAPM, calculated as the average spot yield on the 5-, 7- and 10-year
6 U.S. Treasury securities, as this intermediate-term holding period more closely conforms
7 to the investment time horizon of equity investors in the marketplace. Thus, contrary to
8 Mr. Licon's assertion otherwise, Staff's historical MRP CAPM methodology is
9 appropriate, and the cost of equity estimates derived therefrom reasonable.¹⁴

10
11 **Q. In view of Mr. Licon's assertion that Staff is "inconsistent" when applying the**
12 **CAPM model, please explain why Staff incorporates the long-term 30-year Treasury**
13 **Bond yield as a proxy for the risk-free rate in its Current MRP CAPM.**

14 **A.** Staff utilizes the spot yield on the 30-year long-term Treasury Bond as a proxy for the
15 risk-free rate because the market risk premium ($R_m - R_f$) component of Staff's current
16 MRP CAPM is, DCF-derived.¹⁵ As noted in Staff's direct testimony,¹⁶ the constant-
17 growth DCF model assumes that an entity's dividend growth will continue indefinitely at
18 the same rate, with the dividend growth (g) component being a measure of the expected
19 *infinite annual growth rate* of dividends. Thus, having borrowed upon constant-growth

¹² See Cassidy Direct, p. 28, lines 19-21.

¹³ See Cassidy Direct, p. 29, footnote 14.

¹⁴ It should be noted that for income tax purposes, capital gains on equity investments (i.e. common stock) held for a period of 12 months or longer qualify for treatment as long-term capital gains and are taxed at a lower rate than short-term capital gains on investments held for a period of less than 12 months. Thus, to equity investors the intermediate-term risk-free rate time horizon adopted by Staff for use in its historical MRP CAPM qualifies as a long-term investment holding period for income tax purposes.

¹⁵ See Cassidy Direct, p. 31, lines 23-24.

1 DCF theory/methodology to calculate the market risk premium ($R_m - R_f$) component of its
2 current MRP CAPM, Staff utilizes the 30-year U.S. Treasury Bond as a proxy for the risk-
3 free rate as dividend growth in the constant-growth DCF model is assumed to continue for
4 a longer period of time (i.e. infinity).

5
6 **Q. When reviewing Mr. Bourassa's direct and rebuttal testimonies, did Staff find**
7 **evidence that he had been "inconsistent" in his choice of a risk-free rate in his cost of**
8 **equity estimation methodology?**

9 A. Yes, a review of Mr. Bourassa's testimonies indicates that he used a forecasted estimate of
10 the 30-year long-term Treasury rate as a proxy for the risk-free rate in both his historical
11 MRP CAPM and his current MRP CAPM (see TJB Schedules D-4.10 and D-4.12), but
12 used a spot 20-year Treasury yield as a proxy for the risk-free rate in his risk premium
13 Build-Up method (see TJB Schedules D-4.17 and D-4.18).¹⁷

14
15 **Q. In his rebuttal testimony, is Mr. Licon's stated criticism of Staff's historical MRP**
16 **CAPM confined only to Staff's use of an intermediate-term risk-free rate (i.e.**
17 **average of 5-, 7- and 10-year spot Treasury yields) rather than a 30-year risk-free**
18 **rate?**

19 A. Yes. Mr. Licon's stated criticism is confined only to this issue.

¹⁶ See Cassidy Direct, p. 16, lines 20-21, and p. 17, Equation 2.

¹⁷ In TJB Schedule D-4.17 of his direct testimony, Mr. Bourassa incorrectly reported the closing February 14, 2013 spot 20-year Treasury yield to be 2.49%. Corrected, the closing spot 20-year Treasury yield on that date was 2.79%.

1 **Q. What is the second “error” which Mr. Licon claims to have identified in Staff’s**
2 **CAPM model?**

3 A. Mr. Licon asserts that Staff’s calculation of the market risk premium ($R_m - R_f$) component
4 in Staff’s Current MRP CAPM has been understated.¹⁸ Mr. Licon points out that Staff
5 utilizes as an input into the model *Value Line’s* forecasted 3-5 year stock price
6 appreciation potential estimate, but takes issue with Staff for having discounted this
7 forecasted estimate over a 4-year, rather than a 3-year period. He takes exception to
8 Staff’s 4-year “middle time estimate,” stating “there is no other justification for spreading
9 the return over 4 years.” In advocating for use of a 3-year period to make the calculation,
10 Mr. Licon makes the following statement: “In fact, *if* market participants were in
11 *complete* agreement with this forecast, the argument could be made that the market would
12 move to this point earlier rather than later in order to capture these returns.” (emphasis
13 added) Mr. Licon goes on to point out that when annualized over a 3-year period, Staff’s
14 current MRP CAPM would have generated a MRP of 10.22 percent, rather than the 7.13
15 percent MRP calculated by Staff using a 4-year period.

16
17 **Q. How does Staff respond to Mr. Licon’s criticism of Staff’s use of a 4-year “middle**
18 **time estimate” to calculate the market risk premium ($R_m - R_f$) component in Staff’s**
19 **Current MRP CAPM?**

20 A As Staff’s use of a 4-year period over which to discount *Value Line’s* 3-5 year stock price
21 appreciation potential estimate for purposes of calculating the market risk premium
22 component in Staff’s Current MRP CAPM is entirely reasonable. By their very nature,

1 forecasts and projections come with no guarantee or certainty as to when, or even if, the
2 anticipated growth will be realized, as the underlying assumptions upon which they are
3 grounded may, with the passage of time, prove to have been incorrect. *Value Line* updates
4 its 3-5 year price appreciation potential estimate in each weekly edition of the *Value Line*
5 *Investment Survey - Summary and Index*, and an informational qualifying statement
6 appearing above the estimate reads as follows: "The estimated median price appreciation
7 potential of all stocks in the *hypothesized economic environment 3 to 5 years hence*"
8 (emphasis added). This statement clearly demonstrates two things; namely, (i) *Value*
9 *Line's* projection is based on a future hypothesized economic environment 3-5 years out,
10 and (ii) there is no specificity as to the year (i.e. 3, 4, or 5) in which *Value Line* anticipates
11 its price appreciation potential estimate to materialize. Thus, contrary to Mr. Licon's
12 assertions otherwise, Staff's choice of the 4-year midpoint upon which to base its MRP
13 calculations is appropriate, and despite his advocacy for use of a 3-year period to make the
14 calculation, an equally strong theoretical argument could be made for use of a 5-year
15 period.

16
17 **Q. Does Mr. Bourassa, for purposes of calculating the market risk premium ($R_m - R_f$)**
18 **component in his current MRP CAPM, discount/annualize *Value Line's* 3-5 year**
19 **price appreciation potential estimate over a 3-year period?**

20 **A. A review of Bourassa Schedule D-4.11 suggests that he did so.¹⁹**

¹⁸ See Licon Direct, p. 7, lines 3-17.

¹⁹ See Schedule D-4.11, footnote 3.

1 **Q. In his rebuttal testimony, is Mr. Licon's stated criticism of Staff's current MRP**
2 **CAPM confined only to the issue of Staff's use of a 4-year, rather than 3-year, period**
3 **over which to discount/annualize *Value Line's* 3-5 year price appreciation potential**
4 **estimate for purposes of calculating the market risk premium ($R_m - R_f$) component?**

5 A. Yes, Mr. Licon's stated criticism of Staff's current MRP CAPM is confined only to this
6 issue.

7
8 **Q. What is the third "error" which Mr. Licon claims to have identified in Staff's CAPM**
9 **model?**

10 A. Mr. Licon's final critique of Staff's CAPM model concerns Staff's use of the Hamada
11 adjustment used to calculate Staff's downward 60 basis point financial risk adjustment.
12 Mr. Licon asserts that Staff's Hamada adjustment to LPSCO's cost of equity is improperly
13 based upon a comparison of LPSCO's capital structure to that of Staff's sample group of
14 companies "(in order to adjust for a greater degree of financial leverage for the comparator
15 firms than with LPSCO) based on 'book values of equity' rather than 'market values of
16 equity."²⁰ Mr. Licon further asserts that Staff's calculations generate a "downward bias"
17 to the estimated relevered beta value calculated for LPSCO, with the "net effect of this
18 error" translating into a "lower calculated expected rate of return for investing in LPSCO
19 equity."²¹

20
21 **Q. How does Staff respond to Mr. Licon's criticism of Staff's Hamada financial risk**
22 **adjustment methodology?**

23 A. Once again, Staff takes exception to Mr. Licon's criticism, and in particular to the
24 suggestion/insinuation that Staff's Hamada adjustment calculations are inherently

²⁰ In his rebuttal testimony, Mr. Licon states that he was so informed by Mr. Bourassa.

²¹ See Licon Rebuttal, pp. 7-8.

1 predisposed to underestimate LPSCO's relevered beta, thereby resulting in Staff's
2 downward financial risk adjustment to the Company's cost of equity to be overstated.
3 While it is true that Staff's model incorporates the use of book values rather than market
4 values for purposes of its Hamada adjustment calculation,²² contrary to Mr. Licon's
5 assertion otherwise, Staff does *not* base its Hamada risk adjustment on a comparison of
6 LPSCO's capital structure relative to that of Staff's sample group of companies "in order
7 to adjust for a greater degree of financial leverage for the comparator firms than with
8 LPSCO." Instead, Staff makes its calculation based on a capital structure consisting of 40
9 percent debt and 60 percent equity, resulting in a calculated relevered beta for LPSCO
10 *identical to that of Mr. Bourassa in his Direct testimony (i.e. 0.63).*²³

11
12 **Q. Please explain why Staff uses a capital structure assumed to consist of 40 percent**
13 **debt and 60 percent equity for purposes of calculating a downward financial risk**
14 **adjustment?**

15 **A.** First, Staff does not make a financial risk adjustment to the cost of equity when the subject
16 utility has a balanced, economical capital structure. Staff considers a capital structure
17 within the range of 40 percent debt-60 percent equity (conversely, 60 percent debt-40
18 percent equity) to be balanced and economical. Accordingly, when making a downward
19 financial risk adjustment, Staff's Hamada adjustment methodology incorporates a capital

²² See Staff's earlier response to Mr. Bourassa's criticism of Staff's use of book values in this surrebuttal testimony.

²³ See Bourassa Direct, Schedule TJB D-4.21.

1 structure assumed to consist of 40 percent debt and 60 percent equity, and *not* the average
2 capital structure of Staff's comparator sample as suggested by Mr. Licon.²⁴

3
4 **Q. Please explain why Staff elected to supplement its surrebuttal testimony with the**
5 **presentation of Surrebuttal Schedules JAC-11, JAC-12 and JAC-13.**

6 A. Staff presents these additional schedules for purposes of demonstrating that Staff's
7 Hamada risk adjustment calculations generate the identical 0.63 adjusted relevered beta
8 for LPSCO as that calculated by Mr. Bourassa in his direct testimony. Surrebuttal
9 Schedule JAC-11 presents details of Staff's calculation of LPSCO's unlevered raw beta.
10 As shown, although Staff's sample average capital structure is composed of 50 percent
11 debt and 50 percent equity, the adjusted capital structure used to calculate Staff's Hamada
12 adjustment consists of 40 percent debt and 60 percent equity. Turning to Surrebuttal
13 Schedule JAC-12, Staff calculates LPSCO's relevered beta to be 0.63. Finally,
14 Surrebuttal Schedule JAC-13 presents the detail of Staff's financial risk adjustment
15 calculation based upon its 0.63 relevered beta, resulting in Staff's downward 60 basis
16 point financial risk adjustment.

17
18 Details of Mr. Bourassa's financial risk adjustment calculations are presented in TJB
19 Schedules D-4.19, D-4.20 and D-4.21. As shown in TJB Schedule D-4.20 of Mr.
20 Bourassa's direct testimony, LPSCO's relevered CAPM beta is shown to be 0.63, and as
21 presented in TJB Schedule D-4.21 of Mr. Bourassa's direct testimony, led to his making a

²⁴ In the interest of full disclosure, when making an upward financial risk adjustment to give recognition to a subject utility having a highly leveraged capital structure, Staff's Hamada adjustment would be based on a capital structure consisting of 60 percent debt and 40 percent equity.

1 downward financial risk adjustment of 70 basis points.²⁵ For purposes of his updated
2 rebuttal testimony, Mr. Bourassa now calculates LPSCO's relevered beta to be 0.64,
3 resulting in in what he purports to be a downward financial risk adjustment for LPSCO of
4 60 basis points (see TJB Rebuttal Schedules D-4.20 and D-4.21).

5
6 **Q. In light of the above, is there any basis for Mr. Licon's assertion that Staff's Hamada**
7 **adjustment methodology has underestimated LPSCO's relevered beta, resulting in**
8 **an overstatement to Staff's downward financial risk adjustment for the Company?**

9 A. No, there is not. As evidenced by the fact that both Staff and Mr. Bourassa calculated
10 LPSCO's relevered beta to be 0.63, there is no justification for such an assertion.

11
12 **Q. In his rebuttal testimony,²⁶ Mr. Licon briefly discusses the implications of selecting**
13 **between an investment providing a ROE of 9.9 percent instead of 8.4 percent. How**
14 **does Staff respond?**

15 A. Mr. Licon conveniently fails to mention that in rebuttal testimony, Mr. Bourassa now
16 proposes a reduced 9.7 percent ROE for LPSCO, a figure 20 basis points below the 9.9
17 percent ROE contemplated in his discussion. Furthermore, Mr. Licon fails to mention that
18 if LPSCO were to have a more balanced capital structure, there would be no need for Staff
19 to make a downward financial risk adjustment of 60 basis points, and Staff's
20 recommended ROE for the Company would have been 9.0 percent rather than 8.4 percent

²⁵ In Staff's direct testimony, it was pointed out that Mr. Bourassa's 70 basis point downward financial risk adjustment had been understated by 9 basis points (See Cassidy Direct, p. 46, lines 3-13).

²⁶ See Licon Rebuttal, pp. 10-11.

1 (i.e. Staff's 8.4 percent estimated cost of equity plus an upward 60 basis point economic
2 assessment adjustment).

3
4 **IV. STAFF RECOMMENDATIONS**

5 **Q. Based on Staff's review of Mr. Bourassa and Mr. Licon's testimony, is Staff**
6 **proposing a different ROE and ROR for the Company?**

7 **A. No. Staff continues to recommend the following for LPSCO's cost of capital:**

- 8 1. A capital structure of 15.9 percent debt and 84.1 percent equity.
9 2. A 6.4 percent cost of debt.
10 3. An 8.4 percent return on equity (a figure which includes an upward 60 basis point (0.6
11 percent) economic assessment adjustment, and a downward 60 basis point (0.6
12 percent) financial risk adjustment.
13 4. An 8.1 percent overall rate of return.

14
15 **Q. Does this conclude your surrebuttal testimony?**

16 **A. Yes, it does.**

Litchfield Park Service Company Cost of Capital Calculation
 Calculation of Unlevered Beta
 Sample Water Utilities

$$\beta_{ul} = \frac{\beta_L}{1 + \frac{BD}{EC} (1 - t)}$$

Where :

- β_{ul} = unlevered beta
- β_L = levered beta
- BD = book debt
- EC = equity capital
- t = tax rate

[A]	[B]	[C]	[D]	[E]	[F]
Line No.	(Unadjusted Beta) Levered Raw Beta β_L	Tax Rate t	Book Debt BD	Equity Cap EC	Unlevered Raw Beta $\beta_{ul} = \frac{\beta_L}{1 + \frac{BD}{EC} (1-t)}$
1	American States Water 0.52	39.9%	0.43	0.57	0.36
2	California Water 0.45	37.5%	0.54	0.46	0.26
3	Aqua America 0.37	39.0%	0.55	0.45	0.21
4	Connecticut Water 0.60	32.0%	0.55	0.45	0.32
5	Middlesex Water 0.52	33.9%	0.43	0.57	0.35
6	SJW Corp 0.75	41.1%	0.56	0.44	0.43
7	York Water 0.52	37.6%	0.45	0.55	0.35
8					
9	Sample Water Utilities 0.53	37.3%	0.50	0.50	0.33
10					
11	Staff Adjusted Capital Structure (40% Debt / 60% Equity) 0.53	0.37	0.40	0.60	0.37
12					
13					

Source: Value Line
 Supporting Schedules: Schedule JAC-4 and Schedule JAC-7

Litchfield Park Service Company Cost of Capital Calculation
 Calculation of Relevered Beta
 Sample Water Utilities

$$\beta_{RL} = \beta_{UL} (1 + (1-t)BD + EC)$$

Where :

- β_{RL} = relevered beta
- β_{UL} = unlevered beta
- t = tax rate
- BD = book debt
- EC = equity capital

[A]	[B]	[C]	[D]	[E]	[F]	[G]
Unlevered Raw Beta β_{UL}	0.37	Book Debt \underline{BD}	Equity Capital \underline{EC}	Tax Rate t	Relevered Raw Beta $\beta_{RL} = \beta_{UL} (1 + (1-t)BD/EC)$	Adjusted Relevered Beta β_{RL}
Relevered Beta with Staff Adjusted 60% Debt / 40 % Equity Capital Structure	0.37	0.159	0.841	37.3%	0.42	$.35 + .67(\text{Raw Beta } \beta_{RL})$ 0.63

Sources: Schedule C3 of the Company's application
 Supporting Schedules: Schedule JAC-1 and JAC-11

Litchfield Park Service Company Cost of Capital Calculation
 Calculation of Financial Risk Adjustment
 Sample Water Companies

[A]	[B]	[C]	[D]	[E]
	Rf	β	(Rp)	k
1	Historical Market Risk Premium	0.71	7.2%	7.2%
2	Current Market Risk Premium	0.71	7.2%	8.8%
3	Average of CAPM Estimates			8.0%
4				
5	Relevered Beta	β	(Rp)	k
6	Historical Market Risk Premium	0.63	7.2%	6.6%
7	Current Market Risk Premium	0.63	7.2%	8.2%
8	Average of CAPM Estimates			7.4%
9				
10	Financial Risk Adjustment (8 - 3)			-0.6%

BEFORE THE ARIZONA CORPORATION COMMISSION

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

IN THE MATTER OF THE APPLICATION OF)
LITCHFIELD PARK SERVICE CORPORATION)
AN ARIZONA CORPORATION, FOR A)
DETERMINATION OF THE CURRENT FAIR)
VALUE OF ITS UTILITY PLANT AND)
PROPERTY AND FOR INCREASES IN ITS)
WASTEWATER AND CHARGES FOR UTILITY)
SERVICE BASED THERON)
_____)

DOCKET NO. SW-01428A-13-0042

IN THE MATTER OF THE APPLICATION OF)
LITCHFIELD PARK SERVICE CORPORATION)
AN ARIZONA CORPORATION, FOR A)
DETERMINATION OF THE CURRENT FAIR)
VALUE OF ITS UTILITY PLANT AND)
PROPERTY AND FOR INCREASES IN ITS)
WATER AND CHARGES FOR UTILITY)
SERVICE BASED THERON)
_____)

DOCKET NO. W-01428A-13-0043

SURREBUTTAL TESTIMONY

OF

DOROTHY HAINS, P. E.

UTILITIES ENGINEER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

NOVEMBER 12, 2013

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1 **I. INTRODUCTION**

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

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

5
6 **Q. Are you the same Dorothy Hains who has previously filed testimony in this Litchfield
7 Park Service Company (“LPSC” or “Company”) Water Division and Wastewater
8 Division rates proceeding?**

9 A. Yes.

10

11 **Q. What is the purpose of your Surrebuttal Testimony?**

12 A. In my Surrebuttal Testimony I will respond to three items: (1) estimated water testing
13 expenses for LPSC’s Wastewater Division; (2) correction of errors contained in Table 5 of
14 Report DMH-1; and (3) post-test year plant additions – Equalization Basin repair project.

15

16 **II. WATER QUALITY TEST COSTS FOR LPSC’S WASTEWATER DIVISION**

17 **Q. What is Staff’s response to the Company’s argument that Staff’s estimated annual E
18 Coli testing expense of \$4,928 is too low?**

19 A. In an e-mail from Legend Lab (“Legend”) to the Company dated October 18, 2013, Legend
20 sets three tier charges for E Coli testing, the first tier charge is \$28 per sample when the
21 sample is delivered and tested on a week day, the 2nd tier charge is \$56 per sample when
22 the sample is delivered and tested on weekends and the 3rd tier charge is \$84 per sample
23 when sample is delivered and tested on holidays. Based on this new information, Staff
24 agrees that the bacteria testing expenses for LPSC’s wastewater system in Report DMH-1
25 were underestimated.

1 **Q. What is Staff's recommended total water testing expense using the new bacteria**
2 **testing expense information?**

3 **A. Staff's total recommended water testing expense is now \$30,978. Details that support this**
4 **revised water testing amount are shown in revised Table 4 and Table 4A below:**

5
6 **Table 4 Revised Water Testing Cost (LPSC – WW, AZPDES)**

7

Monitoring – Discharge	No. of tests per year ¹	Cost per test (\$)	Company Reported Total Costs (\$)	Staff Estimated Annual Cost (\$)
Biochemical Oxygen Demand (BOD ₅) – 1/week	52	20 ²	N/A	1,040
Bacteriological – Fecal Coliform (E Coli) – 4/month	48	28 ³	N/A	1,344
Total Suspended Solids (TSS) – 1/week	52	12 ²	N/A	624
pH- 5/week	260	12 ²	N/A	3,120
Oil and grease - quarterly	4	80 ²	N/A	320
Total residual chlorine (TRC)- quarterly	4	13.5 ²	N/A	54
Ammonia (NH ₃) – quarterly	4	24 ²	N/A	96
Nitrate & Nitrite (NO ₃ & NO ₂) - quarterly	4	32 ²	N/A	128
Total Kjeldahl Nitrogen (TKN) - quarterly	4	30 ²	N/A	120
Total Nitrogen – monthly	0	48 ²	N/A	0
Dissolved Oxygen (DO) – 1/year	1	35 ³	N/A	35
Hardness - quarterly	4	18 ²	N/A	72
Phosphorus (P) -quarterly	4	30 ²	N/A	120
Total Dissolved Solids (TDS) - quarterly	4	12 ²	N/A	48
Total Metals (including fluoride & cyanide) - quarterly -	4	271 ²	N/A	1,084
Selected Acid-extractable Compounds – 1/year	1	95 ⁴	N/A	95
Selected Base-neutral Compounds – 1/year	1	365 ⁴	N/A	365
Based on Designated Uses – 1/year	1	365 ⁴	N/A	365

Volatile Organic Compound (VOCs) -1/year	1	225 ³	N/A	225
Semi-Volatile Organic Chemicals (SVOC)	1	2,050 ³	N/A	2,050
Total			N/A	10,940

- Note: 1. Total monitoring/sampling frequencies are based on requirements in Arizona Pollutant Discharge Elimination System ("AZPDES") (Permit # AZ0025712).
2. Prices come from Legend Lab.
3. Prices come from Aquatic Consulting & Testing, Inc.
4. Prices come from Mohave Environmental Lab.
5. Prices come from Legend Lab in e-mail from Legend Lab to Liberty Utilities dated October 18, 2013.

Table 4A Water Testing Cost (LPSC – WW, APP)

Monitoring – Discharge	No. of tests per year ¹	Cost per test (\$)	Company Reported Total Costs (\$)	Staff Estimated Annual Cost (\$)
Bacteriological – Fecal Coliform (E Coli) - daily	365		N/A	
E Coli sampled on weekdays	253	28 ³	N/A	7,084
E Coli sampled on weekends	104	56 ²	N/A	5,824
E Coli sampled on holidays	8	84 ²	N/A	672
total				13,580
Nitrate & Nitrite (NO ₃ & NO ₂) - quarterly	4	32 ²	N/A	128
Total Kjeldahl Nitrogen (TKN) - quarterly	4	30 ²	N/A	120
Total Nitrogen – monthly	12	48 ²	N/A	576
Total Metals (including fluoride & cyanide) - quarterly -	4	271 ²	N/A	1,084
Volatile Organic Compound (VOCs) -1/year	2	225 ³	N/A	450
Semi-Volatile Organic Chemicals (SVOC)	2	2,050 ³	N/A	4,100
Total			N/A	20,038

- 1 Note: 1. Total monitoring/sampling frequencies are based on Aquifer Protection Permit (“APP”)
2 (Permit # P-100310).
3 2. Prices come from Legend Lab.
4 3. Prices come from Aquatic Consulting & Testing, Inc.
5 4. Prices come from Mohave Environmental Lab.
6 5. Prices come from Legend Lab in e-mail from Legend Lab to Liberty Utilities dated
7 October 18, 2013.

8 Total recommended water testing expense is \$30,978, the sum of \$10,940 (Table 4) and \$20,038
9 (Table 4A).

10
11 **III. CORRECTION OF ERROR CONTAINED IN TABLE 5**

12 **Q. Please explain the error.**

13 **A.** Two of the columns in Table 5 Service Line and Meter Installation Charges (LPSC-W)
14 contained in Report DMH-1 were mislabeled. The mislabeled columns are “Staff (Service
15 Line Installation Charge)” and “Staff (Meter Installation Charges)” column. The labeling
16 of these two columns was inadvertently reversed.

17
18 **Q. Has Staff prepared a corrected Table 5?**

19 **A.** Yes. The corrected Table 5 is listed below:

20
21 **Table 5 Service Line and Meter Installation Charges (LPSC-W)**
22

Meter Size	Current Service Line Charges	Current Meter & Service Line Installation Charges	Current Total Meter & Service Line Installation Charges	Proposed Service Line Charges	Proposed Meter Charges	Proposed Total installation Charge	Staff Recommended (Service Line installation charge)	Staff Recommended (Meter installation charge)	Staff Recommended total charges
5/8 x 3/4-inch	\$385	\$135	\$520	At Cost	At Cost	At Cost	\$445	\$155	\$600

3/4-inch	\$385	\$215	\$600	At Cost	At Cost	At Cost	\$445	\$255	\$700
1-inch	\$435	\$255	\$690	At Cost	At Cost	At Cost	\$495	\$315	\$810
1½-inch	\$470	\$465	\$935	At Cost	At Cost	At Cost	\$550	\$525	\$1,075
2-inch (Turbine)	\$630	\$965	\$1,598	At Cost	At Cost	At Cost	\$830	\$1,045	\$1,875
2-inch (Compound)	\$630	\$1,690	\$2,320	At Cost	At Cost	At Cost	\$830	\$1,890	\$2,720
3-inch (Turbine)	\$805	\$1,470	\$2,275	At Cost					
3-inch (Compound)	\$845	\$2,265	\$3,110	At Cost					
4-inch (Turbine)	\$1,170	\$2,350	\$3,520	At Cost					
4-inch (Compound)	\$1,230	\$3,245	\$4,475	At Cost					
6-inch (Turbine)	\$1,730	\$4,545	\$6,275	At Cost					
6-inch (Compound)	\$1,770	\$6,280	\$8,050	At Cost					
Over 6-inch	At Cost								

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IV. POST-TEST YEAR PLANT ADDITIONS - EQUALIZATION ("EQ") BASIN REPAIR PROJECT

Q. Has the EQ Basin Repair Project been completed?

A. Yes. According to an AMEC memorandum to Liberty Utilities (copy provided to Staff), both Phase I and Phase II construction work on the EQ basin repair project were completed on October 31, 2013.

Q. Did Staff conduct a field inspection to verify that the EQ basin is used and useful and in-service?

A. Not yet. At the time of this writing, Staff has not inspected the completed EQ basin.

Q. What is Staff's plan?

A. Staff received the AMEC memorandum on November 5, and a field inspection has been scheduled for November 7. After Staff's inspection of the completed plant and review of

1 all the supporting documentation for the EQ basin repair project, Staff will file an
2 addendum to this testimony presenting Staff's recommendation.

3

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

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