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BEFORE THE ARIZONA CORPORATION COMMISSION

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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-09-0103

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-09-0104

IN THE MATTER OF THE APPLICATION OF LITCHFIELD PARK SERVICE COMPANY, AN ARIZONA CORPORATION, FOR AUTHORITY (1) TO ISSUE EVIDENCE OF INDEBTEDNESS IN AN AMOUNT NOT TO EXCEED \$1,755,000 IN CONNECTION WITH (A) THE CONSTRUCTION OF TWO RECHARGE WELL INFRASTRUCTURE IMPROVEMENTS AND (2) TO ENCUMBER ITS REAL PROPERTY AND PLANT AS SECURITY FOR SUCH INDEBTEDNESS.

Docket No. W-01427A-09-0116

IN THE MATTER OF THE APPLICATION OF LITCHFIELD PARK SERVICE COMPANY, AN ARIZONA CORPORATION, FOR AUTHORITY (1) TO ISSUE EVIDENCE OF INDEBTEDNESS IN AN AMOUNT NOT TO EXCEED \$1,170,000 IN CONNECTION WITH (A) THE CONSTRUCTION OF ONE 200 KW ROOF MOUNTED SOLAR

Docket No. W-01427A-09-0120

Arizona Corporation Commission
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1 GENERATOR INFRASTRUCTURE
2 IMPROVEMENTS AND (2) TO ENCUMBER ITS
3 REAL PROPERTY AND PLANT AS SECURITY
4 FOR SUCH INDEBTEDNESS.

5 **RUCO'S NOTICE OF FILING SURREBUTTAL TESTIMONY**

6 The Residential Utility Consumer Office ("RUCO") hereby provides notice of filing the
7 Surrebuttal Testimony of Sonn Rowell, CPA; and Matthew Rowell in the above-referenced
8 matter.

9 RESPECTFULLY SUBMITTED this 17th day of December, 2009

10 

11 Michelle L. Wood
12 Counsel

13
14 AN ORIGINAL AND THIRTEEN COPIES
15 of the foregoing filed this 17th day
16 of December, 2009 with:

17 Docket Control
18 Arizona Corporation Commission
19 1200 West Washington
20 Phoenix, Arizona 85007

21 COPIES of the foregoing hand delivered/
22 mailed this 17th day of December, 2009 to:

23 The Honorable Dwight D. Nodes,
24 Asst. Chief Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Janice Alward, Chief Counsel
Kevin Torrey, Counsel
Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

- 1 Steve Olea, Director
Utilities Division
-
- 2 Arizona Corporation Commission
1200 West Washington
3 Phoenix, Arizona 85007
- 4 Jay L. Shapiro
Todd C. Wiley
5 Fennemore Craig, PC
3003 N. Central Avenue, Suite 2600
6 Phoenix, AZ 85012
- 7 William P. Sullivan
Susan D. Goodwin
8 Larry K. Udall
Curtis Goodwin Sullivan Udall
9 & Schwab, PLC
501 East Thomas Road
10 Phoenix, AZ 85012-3205
- 11 Craig Marks
Craig A. Marks, PLC
12 10645 N. Tatum Blvd.
Suite 200-676
13 Phoenix, Arizona 85028
- 14 Chad and Jessica Robinson
15629 W. Meadowbrook Avenue
15 Goodyear, AZ 85395
- 16 Martin A. Aronson
Robert J. Moon
17 Morrill & Aronson, PLC
One East Camelback Road, Suite 340
18 Phoenix, AZ 85012

19

20

21

By 
Ernestine Gamble
Secretary to Michelle L. Wood

23

24

LITCHFIELD PARK SERVICE COMPANY

DOCKET NO. SW-01428A-09-0103 et al.

SURREBUTTAL TESTIMONY

OF

MATTHEW ROWELL

ON BEHALF OF

THE

RESIDENTIAL UTILITY CONSUMER OFFICE

DECEMBER 17, 2009

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EXHIBITS 1 THROUGH 4

1 **I. INTRODUCTION**

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

3 A. My name is Matthew Rowell. Member, Desert Mountain Analytical
4 Services, PLLC ("DMAS") PO Box 51628, Phoenix, AZ 85076

5

6 **Q. Please state the purpose of your Surrebuttal Testimony.**

7 A. The purpose of my Surrebuttal Testimony is to respond to the Rebuttal
8 Testimony of Litchfield Park Service Company ("LPSCO") regarding the
9 issues of affiliate allocations and the need for significant plant upgrades at
10 the Palm Valley Water Reclamation Facility ("PVWRF.")

11

12 **Q. Have you filed any prior testimony in this case on behalf of RUCO?**

13 A. Yes. On November 4, 2009 I filed Direct Testimony on behalf of RUCO.

14

15 **II. ALGONQUIN POWER TRUST ALLOCATIONS TO LPSCO**

16 **Q. Please discuss the total payment by LPSCO to Algonquin Power
17 Trust ("APT") during the test year.**

18 A. Table 1 below shows the amounts collected from LPSCO by APT during
19 the test year.

20

21

22 ...

23

TABLE 1: Test Year APT Billings to LPSCO

	Water (636)	Sewer (736)	Total
Central Office Costs - Algonquin Power Trust (APT)			
Management Fees	273,956	182,637	456,593
Accounting fees and costs	2,689	2,747	5,436
HR costs and fees	12,927	5,276	18,203
IT costs	990	427	1,417
General OPS	1,146	764	1,910
Total	291,708	191,850	483,558

The amounts and categories shown in table one were developed from LPSCO's general ledger entries and invoices provided in response to Staff's first set of data requests.

Q. Based on Mr. Sorensen's Rebuttal Testimony¹ it appears that there was some misunderstanding on your part of the Management Fees billed to LPSCO by APT.

A. Yes. I mistakenly assumed that invoices clearly labeled as being for "Management Fees" were in fact for Management Fees. These invoices labeled as "Management Fees" are actually for a "myriad of Central Office Administration costs."² A copy of a representative invoice is attached as Exhibit 1. Mr. Sorensen indicates that "The monthly invoices from APT to

¹ G. Sorensen Rt. At 27, 13-19.

² Id.

1 LPSCO may have said 'Management Fees,' but that was only for the sake
2 of brevity."³

3
4 **Q. Is it standard accounting practice to remove relevant information**
5 **from invoices "for the sake of brevity?"**

6 A. No. Withholding relevant descriptive information from invoices is not
7 consistent with NARUC's Uniform System of Accounts.

8
9 **Q. There also was a misunderstanding regarding the total amount**
10 **allocated by APT to LPSCO.**

11 A. Yes, in my Direct Testimony I pointed out that the total amount billed to
12 LPSCO by APT (shown in Table 1 above) did not match the amounts
13 provided by the Company in response to Staff Data Request JMM 5.3. In
14 his Rebuttal Testimony Mr. Bourassa states that "RUCO's inability to
15 reconcile those numbers stems from RUCO's failure to understand that
16 those numbers apply to a different time periods (sic)."⁴ Mr. Bourassa goes
17 on to explain that the amounts provided in response to JMM 5.3 were
18 budgeted amounts for the 2008 calendar year.⁵ This is in spite of the
19 facts that in JMM 5.3 Staff specifically asked for "updated" amounts and
20 the Excel spreadsheet provided in response to JMM 5.3 containing the
21 numbers at issue was titled: "JMM – 5.3 Affiliates transactions for the test

³ Id.

⁴ Bourassa Rt. At 34.

⁵ Id. At 35.

1 year- APT". I believe it is reasonable to conclude that a spreadsheet
2 labeled "Affiliate transactions for the test year" actually includes affiliate
3 transactions for the test year. Additionally, Staff data request JMM 5.4
4 specifically asked for the amounts allocated from APT to LPSCO. In its
5 response LPSCO simply referenced its response to JMM 5.3.

6 I note that Staff witness Mr. Michlik reached the same conclusion and
7 based his analysis and adjustments on the amounts provided by the
8 Company in response to JMM 5.3.

9
10 **Q. In your Direct Testimony you pointed out that the "Management**
11 **Fees" charged to LPSCO by APT increased dramatically during the**
12 **test year and that the company had provided no explanation for this**
13 **increase. Please discuss the Company's Rebuttal Testimony**
14 **regarding this issue.**

15 **A.** Amazingly, Mr. Bourassa characterizes the significant increase in
16 "Management Fees" during the test year as "irrelevant."⁶ He also states
17 that "RUCO admits that the new method of cost allocation was not through
18 the test year"⁷ and cites page 9 of my Direct Testimony. However, the
19 discussion at page 9 of my Direct pertains to the change in allocation
20 methodology for Algonquin Water Services' ("AWS") allocations, not APT's
21 allocations. Mr. Sorensen explains that the increase in APT's

⁶ id. at 35

⁷ id.

1 “Management Fees” resulted from a true up from 2003 estimates.⁸ Prior
2 to the filing of the Company’s Rebuttal Testimony this true up was not
3 mentioned either in the Company’s Direct Testimony or in response to the
4 several Data Requests on affiliate allocations sent by Staff, RUCO and the
5 City of Litchfield Park (“CLP.”)

6
7 **Q. So what actually makes up the “Management Fees” allocated to**
8 **LPSCO by APT?**

9 A. Mr. Sorensen indicates that the “Management Fees” are “a myriad of
10 Central Office Administration costs that are incurred, including those for
11 trustee fees, management fees, unit holder communications, other
12 professional services (i.e., maintenance of the ERP system), general
13 office costs, public registrant fees, and depreciation expense.”⁹

14
15 **Q. Has the Company provided supporting documentation for this**
16 **myriad of costs?**

17 A. For some of the categories it has, but for others it has not. Table two
18 below shows each category of cost and whether or not supporting
19 documentation has been provided.

20
21

⁸ Sorensen Dt. At 27.

⁹ Id.

1 **Table 2: APT cost categories**

APT Cost Category	Supporting Documentation Provided (Yes/No) ¹⁰
Audit	Yes
Tax Services	Yes
Legal	No ¹¹
Other Professional Services	No
Management Fee	No (See discussion below)
Unit Holder Communication	No
Trustee Fees	No
Escrow and Transfer Agent Fees	No
Rent	Yes
Licenses/Fees & Permits	Yes
Office Expenses	Yes
Depreciation	No

2

3 **Q. Please discuss each of the categories of APT costs.**

4 A. I have reviewed the provided supporting documentation and the descriptions
5 of the cost categories and I will discuss each of them in turn.

6 1. Audit: A review of the back-up information provided for the Audit category
7 reveals that only a very small portion of these costs could be associated
8 with LPSCO. One KPMG invoice (dated May 30, 2008) indicates a charge
9 of \$8,200 for consultation on "overall US Tax Matters." Other than that all
10 the invoices indicate audit or consulting work done for APT or its affiliates
11 other than LPSCO.

12 2. Tax Services: Apparently LPSCO's taxes are prepared on a consolidated
13 basis at APT. Thus LPSCO does benefit from some of these costs.
14 However, the total cost pool includes costs that clearly are unrelated to

¹⁰ Per LPSCO response to Staff Data Request JMM 5.5.

¹¹ The Company has not provided legal invoices but has stated that they will make them available for inspection.

1 preparation of LPSCO's taxes. For example, a KPMG invoice dated June
2 26, 2008 pertains only to Canadian tax matters. Additionally, the Grant
3 Thornton invoices for tax preparation actually break out the preparation
4 cost by utility. Thus, it appears that these costs should be directly billed
5 rather than allocated.

6 3. Legal: These are legal expenses for APT and provide no benefit to the
7 operation of LPSCO.

8 4. Other Professional Services: The Company indicates that these costs
9 include the payroll system, 401K services, health benefit services and
10 enterprise resource planning (ERP) system used by AWS (and thus the
11 Arizona utilities.) So these costs are related to providing a service to
12 LPSCO. Since these costs are directly related to employees they should
13 be allocated based on employee headcount or wages.

14 5. Management Fee: The company indicates that these costs are associated
15 with "provid(ing) management services including strategic advice and
16 consultation concerning business planning, support, guidance and policy
17 making and general services."¹² The Company has not established that
18 LPSCO receives any benefit from these services. Additionally, if the
19 Company were to establish that LPSCO receives benefits from these
20 services, these types of services should be billed directly, not allocated
21 across all the utilities. The Company did provide supporting invoices for
22 these "Management Fee" costs but they are inadequate. All of these

¹² LPSCO response to JMM 5.3

1 invoices are from an entity identified only as "Private Companies" that has
2 the same address as APT. A representative invoice is attached as Exhibit
3 2.

4 6. Unit Holder Communication: These costs pertain exclusively to ATP and
5 have no connection to the operation of LPSCO.

6 7. Trustee Fees: These are costs associated with APT's Board of Trustees
7 and have no connection to the operation of LPSCO.

8 8. Escrow and Transfer Agent Fees: These are costs associated with
9 distributions to Unit Holders and convertible debenture holders and have
10 no connection to the operation of LPSCO.

11 9. Rent: This is the rent expense for APT's Ontario office. Since APT does
12 provide tax and payroll services to LPSCO some portion of the rent
13 expense should be allocated to LPSCO.

14 10. Licenses/Fees & Permits: The Company has agreed with Staff's
15 assessment that these costs should not be recovered from LPSCO.

16 11. Office Expenses: These are general office expenses for the Ontario office.

17 12. Depreciation: These are depreciation expenses related to equipment at
18 the Ontario office.

19

20

21 ...

22

23

1 **Q. What treatment does RUCO recommend for each category of cost?**

2 A. Table 3 below summarizes RUCO's assessment of whether these cost
3 categories should be recoverable from LPSCO at all and if so whether
4 they should be allocated or directly billed.

5
6 **Table 3: LPSCO recommendation on APT cost categories**

APT Cost Category	Recoverable from LPSCO (Yes/No)	Allocation or Direct Billing
Audit	See Below	
Tax Services	Yes	Direct Billing
Legal	No	
Other Professional Services	Yes	Allocation
Management Fee	No	
Unit Holder Communication	No	
Trustee Fees	No	
Escrow and Transfer Agent Fees	No	
Rent	Yes	Allocation
Licenses/Fees & Permits	No	
Office Expenses	No	
Depreciation	No	

7

8 **Q. Please discuss RUCO's recommendation regarding the Audit cost**
9 **category.**

10 A. Generally, APT's audit expenses should not be recoverable from the
11 utilities. However, one KPMG invoice (dated May 30, 2008) indicates a
12 charge of \$8,200 for consultation on "overall US Tax Matters." This
13 \$8,200 should be allocated across Algonquin's US operations. This
14 results in \$405 allocated to LPSCO's waste water division and \$413
15 allocated to LPSCO water division.

1 **Q. Please discuss RUCO's recommendation regarding the Tax Services**
2 **cost category.**

3 A. As discussed above many of the invoices provided to support the tax
4 services costs clearly pertain to Algonquin operations other than LPSCO.
5 Other invoices lack sufficient detail to determine what part of Algonquin's
6 operations they pertain to. Several Grant Thornton invoices for tax
7 services do specifically identify LPSCO as a beneficiary of tax preparation
8 services. The amounts allocated to LPSCO by Grant Thornton total \$586.
9 Splitting this cost 50/50 between LPSCO's water and wastewater divisions
10 yields \$293 allocated to each division.

11

12 **Q. Please discuss RUCO's recommendation regarding the Other**
13 **Professional Services cost category.**

14 A. As I stated above, since these costs are directly related to employees they
15 should be allocated based on employee headcount or wages. I do not
16 have access to employee head counts for each Algonquin subsidiary so
17 for purposes of this testimony I will allocate these costs based on the total
18 number of facilities. The Company indicates that \$448,761 in costs are
19 attributable to Other Professional Services. Dividing this by the total
20 number of Algonquin facilities (71) yields \$6,321. Splitting this 50/50
21 between the LPSCO water and Sewer division yields \$3160.50 to be
22 allocated to each LPSCO division.

1 **Q. Please discuss RUCO's recommendation regarding the Rent cost**
2 **category.**

3 A. The Ontario office does provide some services to LPSCO and the other
4 utilities but it also engages in activities pertaining only to APIF. The
5 Company indicates that there are \$295,887 in rent expenses. Dividing
6 this 50/50 between the utilities and the APIF yields \$147,944 to be
7 allocated across the utilities. Dividing this by 71 (the total number of
8 facilities) yields \$2,084 to be allocated to LPSCO. This yields \$1,042 to
9 be allocated to LPSCO's water and waste water divisions.

10

11 **Q. Please summarize RUCO's recommendations regarding the APT**
12 **allocations.**

13 A. In summary RUCO recommends that \$4,908.50 and \$4,900.50 of APT
14 allocations be allowed for LPSCO's water and waste water division
15 respectively.

16

17 **Q. That takes care of the "Management Fees" identified in Table One**
18 **above. What about the other APT billings to LPSCO identified in**
19 **Table One?**

20 A. In addition to the "Management Fees" billed to LPSCO there are \$26,966
21 of other billings to LPSCO for Accounting Fees and Costs, HR Costs and
22 Fees, IT Costs, and General OPS. The company has provided no
23 explanation for these costs and they should therefore be disallowed.

1 **Q. Do you have anything further to add regarding the APT allocations?**

2 A. Yes. As I stated in my Direct Testimony in spite of multiple data requests
3 regarding affiliate allocations LPSCO failed to provide any meaningful
4 information regarding the APT allocations until Staff specifically asked for
5 the appropriate information in their 5th set of data requests which was
6 motivated by information uncovered in the Black Mountain rate case.
7 RUCO did not receive LPSCO's response to Staff's 5th set of DRs until
8 October 23, less than two weeks prior to the Direct Testimony deadline for
9 intervenors. At page 27 and 28 of his testimony Mr. Sorensen disputes
10 these facts and indicates that LPSCO's responses to RUCO data requests
11 MJR 2.4 and MJR 2.5 contained clear definitions of the APT "cost pools."
12 This is simply not true. LPSCO's response to MJR 2.4 contains no
13 information about the APT cost pools and only mentions APT in passing.
14 LPSCO objected to MJR 2.5 and did not answer it at all. LPSCO's
15 response to MJR 2.4 and objection to MJR 2.5 are attached as Exhibit 3.

16

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1 **III. ALGONQUIN WATER SERVICES (LIBERTY WATER) ALLOCATIONS TO**
2 **LPSCO**

3 **Q. In your Direct Testimony you recommended a disallowance of the**
4 **Algonquin Water Services (“AWS”) allocations labeled “Recon fees**
5 **to 4 factor” which net to \$153,174 for LPSCO Water and \$102,116 for**
6 **LPSCO Waste Water. Are you still recommending this disallowance?**

7 A. No. In his Direct Testimony Mr. Bourassa indicated that his Income
8 Statement Adjustment No. 11 (for water and wastewater) was intended to
9 true-up the AWS allocations as a result of the new allocation method. Mr.
10 Bourassa clarifies in his Rebuttal Testimony that the true-up is
11 accomplished through both his Adjustment No. 11 and the “Recon fees to
12 4 factor.” Based on this clarification we believe the disallowance of
13 \$153,174 for LPSCO Water and \$102,116 for LPSCO waste water is no
14 longer necessary.

15
16 **IV. RATE BASE DISALLOWANCE**

17 **Q. Has RUCO altered its recommendation to disallow \$3.5 million in rate**
18 **base associated with “upgrades” at the Palm Valley Water**
19 **Reclamation Facility (“PVWRF”).**

20 A. No. RUCO believes it is inappropriate for ratepayers to bear the full cost
21 of upgrades necessitated by design and construction errors. At this time
22 there are unanswered questions that preclude RUCO from concluding that

1 the upgrades at the PVWRF were not the result of design and construction
2 errors.

3

4 **Q. In his Rebuttal Testimony Mr. Sorensen disputes your interpretation**
5 **of his Direct Testimony. Do you agree that Mr. Sorensen's Direct**
6 **Testimony does not indicate that there were design and construction**
7 **errors at the PVWRF?**

8 A. No. However, I do agree that Mr. Sorensen's testimony "speaks for
9 itself"¹³ and I suggest that the Commissioners and Administrative Law
10 Judge examine page 7, lines 7 through 26 of Mr. Sorensen's Direct
11 Testimony and draw their own conclusions.

12

13 **Q. In his Rebuttal Testimony Mr. McBride disputes your interpretation of**
14 **the "Litchfield Park Service Company Water Reclamation Facilities**
15 **Strategic Planning and Evaluation Report" ("Evaluation Report")**
16 **prepared by McBride Engineering Solutions ("MES".) How do you**
17 **respond?**

18 A. The Evaluation Report speaks for itself. The Evaluation Report is
19 attached to this testimony as Exhibit 4 and I suggest that the
20 Commissioners and Administrative Law Judge examine it and draw their
21 own conclusions.

22

¹³ Sorensen Rt at p. 19

1 **Q. You cited “unanswered questions” in your response above. Please**
2 **clarify what “unanswered questions” you are referring to.**

3 A. The Rebuttal Testimonies of Mr. Sorensen and Mr. McBride are not clear
4 on several points:

5 Operational challenges: Both Mr. Sorensen and Mr. McBride refer to
6 “operational challenges”¹⁴ at the PVWRF. Neither Mr. McBride nor Mr.
7 Sorensen discuss what the source of those operational challenges was. If
8 the operational challenges did not result from design and construction
9 problems what did they result from?

10 Nature of work performed: Both Mr. Sorensen and Mr. McBride
11 characterize the 2007/2008 upgrades as “additions.”¹⁵ However, Mr.
12 McBride also characterizes some of the upgrades as conversions.¹⁶
13 “Addition” is a fundamentally different concept than “conversion” and this
14 apparent discrepancy is unexplained. Further, LPSCO has contended
15 that the PVWRF did not need any upgrades as a result of increased
16 capacity.¹⁷ So it is unclear why plant additions were necessary.

17 Nature of changed circumstances: Mr. Sorensen contends that the
18 upgrades were necessary because of “increased customer demand and
19 various changed conditions ... including changed zoning requirements, in-
20 fill residential development, and increased customer demands for more
21 odor control.” LPSCO’s contention that the PVWRF did not need any

¹⁴ Sorensen Rt at 22, McBride Rt at 4.

¹⁵ Sorensen Rt at 22, McBride Rt at 5.

¹⁶ McBride Rt at 5.

¹⁷ LPSCO response to RUCO MJR 2.11, MJR 3.1, MJR 5.1, MJR 5.4

1 upgrades as a result of increased capacity¹⁸ appears to conflict with Mr.
2 Sorensen's assertion that increased customer demand was partially
3 responsible for the needed upgrades. Additionally, while RUCO would
4 agree that the company should not be held responsible for changed
5 zoning requirements, it is not clear to what extent the changed zoning
6 requirements were responsible for the "operational challenges" at the
7 PVWRF.

8 Increases in capacity: Staff's March 21, 2008 Compliance Filing Per
9 Decision No. 69165 in Docket SW-01428A-06-044 indicates (on page 2)
10 that on March 5, 2008 the PVWRF was "under construction to increase
11 the plant capacity by 1.0 million gallons per day."¹⁹ This conflicts with the
12 Company's assertions that no increases in capacity were necessary and
13 that all of the 2008 upgrades were necessitated by "operational
14 challenges."
15

16 **Q. Do you have any concluding remarks regarding the PVWRF**
17 **upgrades?**

18 A. Clearly, the PVWRF has faced significant challenges. The Company is
19 seeking to include in rate base significant amounts spent to deal with
20 those challenges. Regardless of whether that spending resulted from
21 Design and Construction problems, "operational challenges" or was

¹⁸ Id.

¹⁹ Mr. McBride's resume provided in response to RUCO's 9th set of Data Requests also references a 1.0 MGD capacity expansion at the PVWRF.

1 necessitated by some other reason; given the history of the PVWRF it
2 would not be appropriate to approve rate base treatment of that spending
3 without having answers to the above questions.

4
5 **Q. Does your silence on any of the issues, matters or findings**
6 **addressed in the testimony of any of the witness for LPSCO**
7 **constitute your acceptance of their positions on such issues,**
8 **matters or findings?**

9 A. No, it does not.

10

11 **Q. Does this conclude your direct testimony on LPSCO?**

12 A. Yes, it does.

MATTHEW ROWELL
SURREBUTTAL EXHIBIT 1

MATTHEW ROWELL
SURREBUTTAL EXHIBIT 2

Sales / Invoices SALES000000000290061

Private Companies
2845 Bristol Circle

Oakville ON L6H 7H7

Date 10/28/2007

Algonquin Power Trust
2845 Bristol Circle

Oakville ON L6H 7H7

Purchase Order	Customer ID	Salesperson ID	Shipping Method	Payment Terms ID
----------------	-------------	----------------	-----------------	------------------

003APT

AR

Management Fee Inc.Oct07-APT

\$72,406.42

Subtotal	\$72,406.42
Misc	\$0.00
Tax	\$5,068.45
Freight	\$0.00
Trade Discount	\$0.00
Payment	\$0.00
Total Due	\$77,474.87

MATTHEW ROWELL
SURREBUTTAL EXHIBIT 3

**LITCHFIELD PARK SERVICE COMPANY
DOCKET NOS. SW-01428A-09-0103 AND W-01427A-09-0104
RESPONSE TO RUCO'S SECOND SET OF DATA REQUESTS**

September 25, 2009

Response provided by: Gerald Tremblay
Title: Director of Finance
Company Name: Algonquin Power Income Fund
Address: 2845 Bristol Circle
Oakville, Ontario Canada L6H 7H7

Company Response Number: MJR 2.4

Q. Please provide a narrative description of how affiliate costs are allocated to the utilities.

RESPONSE: Algonquin Water Services (now Liberty Water and formerly New Spring) in all years allocated costs in the following manner. Day to day operating costs of the utility were charged out at a fixed rate per month. Customer service and administration costs were billed out at a dollar rate per customer. Engineering labor was charged out at market hourly rates on a job by job basis.

It was determined that, for the test year, a change in allocation method was in order. This new method was used to allocate all expenses on a cost recovery basis and eliminate any profit component obtained by AWS. The new method of allocation is to charge all direct operations labor costs related to LPSCO via timesheets. All customer service and finance related costs are allocated based on customer counts to all AWS-operated utilities, and all administration costs are allocated based on a 4 factor formula to all Algonquin-owned utilities. This allocation is based on a weighted average of rate base, customer counts, wages, and operating expenses for all our utilities. Engineering services have remained allocating their time via the job costing timesheet process but have moved from market chargeable rates to cost recovery rates. This process was initiated after the test year, thus a reconciliation was performed to adjust the test year results to this new process.

SUBJECT TO NON-DISCLOSURE AND CONFIDENTIALITY AGREEMENT
If any engineering services from Algonquin Power Systems are needed, all labor is charged out at standard rates to recoup the cost of labor, burden, and administration

overhead costs. Algonquin Power Trust charges a fixed fee to all the utilities based on the number of facilities in the Algonquin group to recoup its administration costs. The utility group then apportions its share of APT costs to each facility via customer count.

All affiliated profit has been eliminated.

SUBJECT TO NON-DISCLOSURE AND CONFIDENTIALITY AGREEMENT

**LITCHFIELD PARK SERVICE COMPANY
DOCKET NOS. SW-01428A-09-0103 AND W-01427A-09-0104
RESPONSE TO RUCO'S SECOND SET OF DATA REQUESTS**

September 16, 2009

Response provided by:

Title:

Company Name:

Address:

Company Response Number: MJR 2.5

- Q. Please provide a complete list (in Excel format) of all affiliate accounts and/or asset classes that are allocated or billed to the utilities. For each account/asset class provide the name of the affiliate, the total test-year amount of the account/asset class, the allocation method used, the amount allocated to EACH (i.e., not just LPSCO) utility level affiliate, and the specific utility level account(s) where they are ultimately booked (e.g., "Outside Services – Other.")

OBJECTION: This is a proceeding to set the rates for LPSCO. As such, the relationships between third parties that are not parties to this rate case is immaterial, and not calculated to lead to the discovery of admissible evidence in this proceeding. Furthermore, to the extent RUCO seeks information regarding "all" such third party transactions the request is overly broad and unduly burdensome.

MATTHEW ROWELL
SURREBUTTAL EXHIBIT 4

Litchfield Park Sewer Company
Water Reclamation Facilities Strategic Planning
Evaluation Report

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Litchfield Park Sewer Company
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Evaluation Report

1.0 INTRODUCTION

Algonquin Water retained McBride Engineering Solutions, Inc. (MES) to conduct a study to review the existing and planned water reclamation facilities (WRFs) in their Litchfield Park Service Company (LPSCO) service area and to develop a list of strategic options that Algonquin might consider to achieve their treatment, operations, and redundant capacity goals for these facilities. This report is intended to describe the investigations of the current conditions and summarize the findings and recommendations of the study.

Algonquin currently owns and operates the Palm Valley Water Reclamation Facility (WRF) in its Litchfield Park service area. This facility, which utilizes a sequential batch reactor (SBR) treatment technology, is rated for a treatment capacity of 4.1 mgd with a planned ultimate capacity of 8.2 mgd. In addition, to meet the future needs of the growing community within the service area, there are plans to construct a second facility to be called the Sarival Water Reclamation Facility. Like the Palm Valley WRF, the Sarival WRF is planned to have an initial capacity of 4.1 mgd with an ultimate capacity of 8.2 mgd. At present there is a lift station at Sarival Road that pumps the wastewater from that service area to the Palm Valley WRF.

According to Algonquin's own managers, engineers, and operators, the existing Palm Valley WRF has numerous operational shortcomings that need to be addressed. These include hydraulic issues, redundant capacity shortfalls, odor control problems, process control difficulties, equipment reliability concerns, trouble-shooting limitations, excessive maintenance requirements, and a lack of operational flexibility, among others. In addition, it is expected that the current rated capacity of the plant will be exceeded within one year.

It is apparent that the challenges facing Algonquin in regard to the LPSCO facilities are diverse and numerous. Some will require short-term attention while others will require longer term planning consideration. However, to achieve the treatment, operations, and redundant capacity goals for these facilities an overall strategy will be required that prioritizes action items, accounts for future needs, and considers a range of problem-solving options, including less conventional ones. This study was

conducted to assist Algonquin in developing a sound strategy by investigating the current condition and proposing a range of options that would focus on solutions.

2.0 BACKGROUND

The facilities currently operated by LPSCO include the Palm Valley WRF and the Sarival Lift Station. The Palm Valley WRF was planned to be built in two phases with a capacity of 4.1 mgd each. The Sarival Lift Station has a capacity of approximately 1 and conveys sewage to the Palm Valley WRF. Like the Palm Valley WRF, the future Sarival WRF is planned to be built in two phases of 4.1 mgd each.

The following subsections describe the capabilities and equipment of the existing Palm Valley WRF and the Sarival Lift Station.

2.1 Palm Valley WRF

The Palm Valley Water Reclamation Facility (WRF) is wastewater treatment plant that utilizes a sequential batch reactor (SBR) technology. It is designed to produce ARS Title 18 "Class A-plus" quality effluent for various reuse applications. The rated treatment capacity for the plant is 4.1 million gallons per day (mgd) on an average-day-peak-month basis and 11.1 mgd on a peak-flow basis. The present treatment train consists of the following liquid-stream processes and equipment:

- ◆ Influent Meter Station – located near Manhole No. 2 upstream of the plant
- ◆ Influent Pump Station – consisting of three 5.55-mgd submersible pumps in a 39-foot deep wetwell that is common-walled with the Anoxic Reactor
- ◆ Mechanical Screening – utilizing two auger screens with 6-millimeter perforated openings
- ◆ Grit Removal – through one 12-foot diameter vortex-type steel settling tank with grit washer
- ◆ Anoxic Reactor – a 589,000-gallon tank with air-liquid jet mixing, three 7.9-mgd submersible transfer pumps and one 7.9-mgd submersible jet-motive pump; designed with approximately 295,000 gallons of equalization capacity
- ◆ Sequential Batch Reactors – consisting of two 1.6-MG reactor tanks with air-liquid jet mixing, fixed-level decanters, a common flow-return trough, and four submersible jet-motive pumps each
- ◆ Process Air System – utilizing eight 100-horsepower constant-speed rotary blowers; two for the secondary treatment system with a capacity of 1,500 cfm each at 11 psig, and three for the sludge digestion tanks with a capacity of 2,000 cfm each at 8.5 psig

- ◆ Post-Equalization – through a serpentine-baffled surge tank with approximately 245,000 gallons of equalization capacity and two VFD-equipped vertical turbine filter feed pumps with a capacity of 8.2-mgd each
- ◆ Tertiary Filters – utilizing three trains of cloth-media disk filters
- ◆ Post-Filtration Storage – Clear well tank with approximately 175,000 gallons of equalization capacity and three VFD-equipped vertical turbine effluent discharge (UV feed) pumps with a capacity of 4.1-mgd each
- ◆ Tablet Chlorination System – (presumably) for pre-treatment of the UV system influent
- ◆ Ultra-Violet (UV) Disinfection – consisting of seven in-line medium pressure UV reactors with a capacity of 1.44 mgd each
- ◆ Effluent Metering – utilizing a non-invasive external electronic flow meter on the 24-inch effluent line

The solids handling system for the facility includes the following:

- ◆ WAS Metering – a Doppler-style external meter on the 8-inch thickener feed line
- ◆ Sludge Thickening – utilizing two rotary-drum thickeners with a capacity of 325 gpm each at 0.25 percent solids
- ◆ Sludge Dewatering – consisting of one decanting centrifuge with a capacity of 90 gpm at 3 percent solids, a screw pump, and two 20-cubic-yard roll-off containers

The odor control system for the facility includes the following:

- ◆ One 10,000 cfm multi-stage chemical scrubber for the Headworks Building and Anoxic Basin
- ◆ One 6,000-cfm multi-stage chemical scrubber for the Solids Dewatering Building and ATAD Basins
- ◆ One 16,000-cfm granular activated carbon (GAC) packed-bed filter (now under construction), designed in series with the scrubbers to polish the exhaust from both

2.2 Sarival Lift Station

The Sarival Lift Station is a wastewater pumping facility that was designed to convey sewage to the Palm Valley WRF. MES had been unable to determine the capacity or hydraulic characteristics of the pumps that were installed.

2.3 Sarival WRF (Planned)

The Sarival WRF will be the second wastewater facility treating flows from the LPSCO service area. Like the Palm Valley WRF, the Sarival WRF is expected to be an SBR facility and is planned to have an initial capacity of 4.1 mgd with an ultimate capacity of 8.2 mgd.

3.0 CHALLENGE AREAS AT PALM VALLEY WRF

To identify challenge areas for the Palm Valley WRF, MES reviewed the design documents, process and capacity studies, and operations information for the plant, conducted interviews with the Algonquin engineers, managers, and operations staff, talked to previous engineers and employees familiar with the history of the facilities, and consulted with manufacturers and process equipment experts. While none of the challenges presented below appear to be preventing the successful operation of the facility, they do show target areas where improvements could be made to enhance the overall operation, reliability, and cost effectiveness of the plant. The following subsections provide a summary of the challenge areas identified for the facility.

3.1 Headworks and Influent Systems

According to the Algonquin staff and a review of the design, there are a number of challenges with the Headworks and Influent systems for the facility. The following paragraphs describe some of these challenges.

3.1.1 Lack of Influent Flow Equalization

Regarding the influent system, there is no flow equalization upstream of the influent pump station. Therefore when the SBR system is not ready to take a new batch, equalization must occur in the collection system, potentially resulting in sewer surcharging during peak flows. In addition, this condition restricts the flexibility of the operations staff to extend batch cycles if the process is not performing optimally.

3.1.2 Influent Metering and Sampling Locations

Another challenge with the influent system is that the current location of the influent meter is upstream of the influent pump station wetwell, while the influent sampling point (for BOD, TSS, etc.) is downstream of the influent pump station, and the return flows from the filter backwash, filter sludge, and dewatering centrate are in between. This means that the measured influent flows do not contain the return flows yet the loading concentrations (from the sampling) include the contribution of the return streams. This configuration makes it very difficult to measure or calculate the actual influent loading or the loading to the biological system. According to Algonquin staff they are currently planning to install

a new flow meter downstream of the influent pump station, and this solution should alleviate the situation considerably.

3.1.3 Blinding and Solids Bypassing of the Influent Screening Process

The first treatment process after the influent pump station is influent screening. According to Algonquin staff the 6-millimeter auger screens have been problematic for a number of reasons. First, the brushes on the auger that are designed to clean the screens have had wear issues and are very difficult and time consuming to replace; second, the augers tend to bind when large solids get into the screen; and third whenever the brushes are worn or the augers bind, the screens tend to blind or clog. When the screens blind or clog (either partially or fully) the wastewater is able to flow over the rubber shroud and significant flows of unscreened wastewater can bypass the process. Because there is no grinder or comminuter upstream of the screens, the solids that get into the secondary process can be quite large.

Apparently since these screens have been in operation there has been a significant amount of bypassing of unscreened wastewater, resulting in large solids and debris entering the SBR process with no way to remove it. This is especially problematic because large solids can easily clog the jet-mixing nozzles, and there is at least some evidence of clogging in all of the process basins. It also appears that the solid material in the process basins may be a contributing factor to the impeller wear issues for the submersible motive pumps.

3.1.4 Fats Oils and Grease (FOGs)

There is currently no process or means for reducing or removing fats, oils and grease (FOGs) in the headworks or anywhere else in the facility treatment train. This is a problem because FOGs can cause foaming, increase odor problems, reduce the efficiency of (or even blind) the tertiary filters, and create performance problems in the UV disinfection system. Based on operator input each one of these problems has been experienced at the plant.

3.1.5 Moisture and Corrosives Passing through Open Grating in Headworks Room

The Headworks Building was constructed with open grating over a 107x4-foot opening in the floor of the room right above the process basins. Due to the process air flow and the configuration of the odor control system, the air from the process tanks is drawn directly into the headworks room. The moisture and corrosive constituents in the air have had an obviously detrimental affect on the equipment in the headworks room, not to mention creating an uncomfortable working environment for the operators.

This condition is made worse by the fact that the electrical equipment in the room is apparently not NFPA Class 1 – Division 1 and as a result the equipment has experienced notable deterioration, and according to the operators multiple failures have occurred. The Algonquin staff has taken measures to

improve the condition, including using checker plating and foam sealant to try to block the opening. In addition, plans have been made to relocate all the critical electrical equipment outside of the headworks room. However, it does not appear that these measures will completely alleviate the problem.

3.2 Secondary Treatment System

The secondary treatment system includes the Anoxic Reactor, the SBR Basins, and the Process Air Blowers. The challenges identified with these systems are as follows:

3.2.1 Sludge Wasting from Anoxic Reactor

The plant was designed and constructed to waste sludge (WAS) from the bottom of the Anoxic Reactor. However, because the Anoxic Reactor received the initial influent flows, the operations staff found that the WAS stream contained a significant amount of raw wastewater with a very high volatile component. This resulted in high odors, inefficient thickening, and stress on the aerobic digestion process. To counter this problem, the wasting system was reconfigured by Algonquin to draw from the SBR basins, and it appears that this solution has improved the process.

3.2.2 Clogging of Jet-Mixer Nozzles with No Back-Flush Capability

As a result of flow bypassing the influent screens, it appears that a significant amount of large solids and debris has been introduced into the process basins. Once in the process basins, the large solids can be drawn through the motive pumps and conveyed into the jet-aeration headers. The nozzle openings for the jet-aeration headers are small enough to be clogged by large solids in the mixed liquor, reducing mixing/aeration capacity and straining the motive pumps. Based on field observation by the operations staff and MES, it appears that significant clogging has occurred, especially in the Anoxic Reactor.

In many jet-aeration-type biological systems there is some way to back-flush the nozzles to remove clogged material. This is usually done through either an air-lift pipe that uses the process air to reverse the flow through the nozzles, or a dedicated pump that is used to draw flow (and often WAS) back through the header. In the Palm Valley system, however, the pump and piping configuration provides no means for back-flushing.

3.2.3 Constant Speed Blowers and DO Control

There are eight constant speed process blowers in the plant with no variable adjustment or inlet control valves. Five blowers, located in the blower room adjacent to the headworks, are dedicated for the secondary treatment process air; the remaining three blowers, located in the solids dewatering room, are for the digesters. According to the operations staff, the only way to control the total amount of air flow is to turn the blowers on and off (manually or on timers), and the only way to control the individual air

flow to any of the process basins is through modulating or manual valves on the headers to each tank. Any adjustments made to control dissolved oxygen (DO) levels must be done manually.

The manual controls and lack of flexibility is a challenge for the plant because it restricts the ability to optimize the biological performance through control of the oxygen levels. In addition, inefficient on-off cycles of the air flow can create more odors than would otherwise be produced, and almost certainly results in significantly higher power costs.

3.2.4 Fixed Decanters Passing Solids and Floatable Material

The SBR tanks are equipped with fixed decanters that draw the supernatant out of the tank until the water level falls below the decanter openings. According to Algonquin personnel and MES field observations, the operation of the fixed decanters in this manner results in direct passing of all floatable materials on to the tertiary filters. In addition, by allowing the decanters to draw air at the end of the decant cycle, air space is created inside the decant pipe that can be filled by the mixed liquor on the fill cycle and then drawn to the filters in the first part of the next decant cycle.

Another challenge that has been identified by the Algonquin staff is the passing of mixed liquor through the decanter valves due to a failure to completely close. Moreover, if mixed liquor is leaked through the decanters, the problem is exacerbated by the fact that there is no way to return a bad batch to the head of the plant once it reaches the surge tank.

3.3 Tertiary Filtration System

The tertiary filtration system consists of the surge tank, the filter feed pumps, and the cloth-media disk filters, including the filter sludge and backwash return. The following items have been identified as challenge areas for this system:

3.3.1 Surge Tank Sizing

According to the design documents, the equalization capacity of the surge tank is approximately 250,000 gallons, whereas the volume of one decant batch is approximately 425,000 gallons. While this sizing of the tank is adequate to prevent hydraulic overloading of the filters, it is not large enough to provide flexibility for significant cycle changes in the SBR process, for isolation of a bad batch, for downtime if the filters blind, or for maintenance of the tank itself. Any of these events, if needed, require process shutdowns that can back up the wastewater flow all the way into the collection system.

3.3.2 Surge Tank Serpentine and Sediment Removal Difficulties

The surge tank is baffled in such a way that the flow travels through a serpentine configuration from the influent point to the filter feed pumps. Because there is no chlorine or filter aid addition in the tank, the

serpentine configuration appears to be unnecessary. It also makes the removal of sediments or floatables/FOGs difficult because access to the tank is only provided at one end and there is no sloping of the floor to move sediments to the accessible area.

3.3.3 Lack of Secondary Effluent Return Line from Surge Tank

The way the plant is currently configured, any secondary effluent that flows into the surge tank must be processed through the filters. There is no means to return the secondary effluent from the surge tank back to the headworks or the process tanks. This configuration can be a challenge because if mixed liquor, a large load of FOGs, or other solids come through the decanters, there is no way to divert the flow back to the plant to avoid overloading or stressing the filters.

3.3.4 FOG Blinding of the Cloth Media Filters

According to the Algonquin staff, there have been occasions where heavy FOG loads from the SBRs have blinded the cloth media of the disk filters, requiring extensive manual cleaning to restore filtration effectiveness. Even during the field visit for this report significant FOG's were observed floating in the filtration and surge tanks and built up along the backwash arms of the filters.

3.3.5 Filter Sludge Pump Failures and Valve Clogging

Another challenge with the filtration system that has been noted by the plant operations staff is the numerous failures of the filter sludge pump and the frequent clogging of the sludge valves and lines. It was suggested that larger lines and valves and a stockier pump for the sludge system would improve the maintenance issues.

3.4 Effluent Pumping and Disinfection System

The effluent pumping and disinfection system consists of an effluent clear well tank, effluent discharge pumps, a tablet chlorination system, the ultra-violet (UV) disinfection system, and the effluent meter. The following items have been identified as challenge areas for this combined system:

3.4.1 Clear Well Tank Sizing

According to the design documents, the differential storage capacity of the clear well tank is approximately 175,000 gallons. Like the post-equalization surge tank, the sizing of the tank is adequate to prevent hydraulic overloading downstream (in this case the UV reactors), but it is not large enough to provide flexibility for significant cycle changes in the SBR process, for isolation of a bad batch, for downtime if the UV system fails, or for maintenance of the tank itself. Any of these events, if needed, require process shutdowns that can back up the wastewater flow all the way into the collection system.

3.4.2 In-Line UV System Effectiveness and Maintenance Issues

Based on feedback from the operations staff, the inline ultra-violet reactors have had multiple performance and maintenance problems, and obtaining parts from the overseas manufacturer has been cumbersome. They indicate that there also have been fouling problems and extended periods where the disinfection effectiveness has not achieved the design levels. To help improve the fouling problems the Algonquin staff installed a system to periodically soak the reactors in citric acid.

3.5 Sludge Digestion and Dewatering System

The sludge digestion and dewatering system consists of the WAS wasting line, the rotary sludge thickeners, the ATAD and aerobic digesters, and the sludge dewatering and storage system. The following items have been identified as challenge areas for this combined system:

3.5.1 Sludge Wasting from Anoxic Tank

Based on a review of the design, the WAS system was configured to bleed WAS flow off of the jet-mixing line in the anoxic tank, fed by a single motive pump located within the basin. According to the operations staff this has created a problem due to the heavy percentage of raw wastewater that is introduced into that basin. The high volatile content and low mixed liquor TSS has apparently presented operational challenges to the digestion and dewatering processes downstream. To remedy this problem, the Algonquin staff made changes to enable the WAS flow to be drawn from the SBR tanks, and this appears to have improved the situation.

3.5.2 (Former) ATAD Process Odors and Foaming

The plant was designed to utilize a two-stage sludge digestion process, with the first stage being an Autothermal Thermophilic Aerobic Digestion (ATAD) process and the second stage being traditional aerobic digestion. According to the operations staff, the ATAD system has been problematic, with significant foaming problems and high odor generation. In addition, the process is sensitive to DO levels, which are difficult to maintain given the low flexibility of the constant speed blower system. Even manufacturers of ATAD systems acknowledge the drawbacks, as indicated in the following statement from the website of Thermal Process Systems, an ATAD equipment manufacturer:

“Various anaerobic and aerobic digestion processes are in use today. But each has its limitations. For example, natural aerobic digestion processes release heat, as well as water and carbon dioxide - all desired results. However, at typical mesophilic operating temperatures, roughly 20-45°C (68-113°F), the process is inefficient, resulting in instability with minimal pathogen kill and little solids reduction.

Results improved significantly with the introduction of Autothermal Thermophilic Aerobic Digestion (ATAD) several years ago. ATAD takes advantage of highly efficient thermophilic organisms naturally present in wastewater, optimizing the environment for them to proliferate and dominate. This increases the temperature of the

sludge as the thermophiles feed on other microorganisms. At these higher temperatures the cell walls of the activated sludge rupture, releasing the now-dead mesophilic contents and providing a feast for the thermophiles. The metabolism of the thermophiles is extremely high, yet the net yield is low, resulting in a significant reduction of volatile solids to produce a pathogen-free end product. On the downside, due to their inherent inflexibility, traditional ATAD processes often produce excess foam and unacceptable odors.”

The ATAD system that was designed and constructed at the Palm Valley WRF was apparently included at the request of the original owner and is not typically a process installed by the design-builder of the plant. Therefore, it appears that many of the controls and optimization features for an ATAD system are not available to the operations staff, exacerbating the inherent difficulties in running such a process. To rectify the problems, the Algonquin staff decided to convert the ATAD basins to traditional aerobic digestion and equalization for the second stage digesters. While this has improved the situation, the operations staff indicates that these converted basins are still very difficult to control and often slip back into periods of varying pH, heavy foaming, and excessive odors.

3.5.3 High Centrifuge Maintenance Costs

The sludge from the second stage aerobic digesters is dewatered using a centrifuge system. According to the operations staff the equipment produces an adequate biosolids cake when functioning properly. However, the equipment has been extremely unreliable, costing many man-hours for maintenance and significant funds for replacement parts which are not readily obtained.

3.5.4 Insufficient Plant Sewer Sizing for Return Flows

The return flows from the disk filters, the centrifuge, the sludge thickeners, and the seal water/floor drains in the sludge dewatering room are all routed through an 8-inch plant sewer line back to the anoxic basin. Based on the experience of the operations staff, this line is significantly undersized and will back up during heavy backwash or dewatering periods. In addition, there is no flow meter or sampling point in the line to determine the overall loading of the plant from the return flows.

3.6 Odor Control System

The odor control system originally consisted of two three-stage wet chemical scrubbers, one 10,000-cfm unit for the Headworks Building and Process Basins, and one 6,000-cfm unit for the Solids Dewatering Building and Digester Basins. Due to performance issues resulting in public complaints, in early 2007 a 16,000-scfm carbon media scrubber was added to polish the exhaust streams of the two original scrubbers. The following items have been identified as remaining challenge areas for this odor control system:

3.6.1 Inadequate Sizing of the Odor Control Units

Based on the air space volumes in the odor-controlled buildings and tanks, it appears that the system was designed to provide approximately 10 to 12 air changes per hour for each of the odor-controlled equipment rooms. The design appears to be based on drawing air in series from the process and digester basins *through* the odor-controlled rooms; but since input air can be drawn from various areas (e.g., the process air blowers, the evaporative cooling units, and incidental openings in each building), the entire volume of all air space is actually drawn through the system in parallel, significantly reducing the air changes per hour. Therefore the effective air change rate for the system as a whole appears to be *less than one* air change per hour. In addition, there are no apparent automatic or manual dampers on either the odor control duct lines or the buildings, which would mean there is no way of balancing the air in and out of the system.

3.6.2 Corrosion from Drawing Process Air from the Basins through the Buildings

Because the odor control system draws air from the process basins through the odor-controlled rooms, the equipment and fixtures in the rooms are exposed to moisture-laden air with highly corrosive constituents. The effects of this can be readily observed in the Headworks room, where a layer of corrosion coats most of the susceptible equipment and condensed moisture is visible on the windows and most hard surfaces. In addition, drawing the air from the process basins through the rooms creates a poor environment for operators working within the rooms.

3.6.3 Rotary Thickeners Not Individually Odor-Controlled

In the solids dewatering room the most noticeable generator of strong odors is the rotary thickening system. Although the two Rotary Thickener units are enclosed and appear to have a flange for attaching an odor-control duct, the ducts in the room are not connected to them. Instead the odors linger in the room until they make their way to the duct openings or an opening in the building. As a result, the room itself is quite odorous, creating an uncomfortable work environment and (because of the inefficiently balanced air flow) allowing odors to escape whenever a rollup or access door is opened.

4.0 POTENTIAL IMPROVEMENTS AT PALM VALLEY WRF

Based on the investigations conducted for this study, input from Algonquin staff, and the analysis detailed above, there are a number of potential improvements at the Palm Valley WRF that MES would recommend for further study and consideration. These potential improvements listed in this section are intended to be considered for the short-term to potentially alleviate immediate challenges. Potential improvements for the longer term and future expansions are provided in the next section.

While many challenge areas were identified in Section 3, there are four main improvement areas that if addressed could have an immediate positive impact on plant operations:

- Removing Large Solids from the Treatment Train
- Unclogging the Jet-Aeration Nozzles
- Minimizing Fats, Oils and Grease (FOGs)
- Reconfiguring and Augmenting the Odor Control System

These four items are discussed in detail below, along with suggestions for measures that could be taken in the short term to accomplish the improvements. After the analysis of these four areas, this section also provides a list of potential considerations for improvement of the other identified challenge areas for the Palm Valley facility.

4.1 Removing Large Solids from the Treatment Train

Many of the challenge areas listed in Section 3 are a direct result of, or are related to, the presence of large solids and debris in the treatment train. These include:

- Clogging of the jet-aeration nozzles in all process tanks
- Impeller wear in the submersible motive pumps
- Seating problems with the SBR decant valves
- Clogging of the filter sludge lines and valves
- Maintenance issues with the filter sludge pumps

Because of these challenges (and perhaps others not identified) that have to do with large solids and debris in the system, it is clear that influent screening is a critical process in the treatment train for this facility. Therefore we believe that Algonquin should implement measures to eliminate the potential for raw wastewater to bypass the influent screens and consider alternatives for re-screening the mixed liquor already in the system.

4.1.1 Suggestions for Further Review

Some potential mitigation measures that might be considered for further investigation include:

- Mixed Liquor Re-Screening – One means of removing large solids and debris that have already bypassed into the mixed liquor would be to install a temporary screening unit to take flow from the SBR-feed header and re-screen it for several weeks. We do not recommend re-screening the mixed liquor by routing it through the existing auger screens because it would potentially increase the maintenance, blinding, and bypass problems already observed with these screens.

- Screen Augmentation/Replacement – The current auger screens, while they may be adequate for another application, are not a good fit for a plant that has no upstream coarse screens or grinder and cannot bear occasional bypasses. Because adding upstream coarse screens or a grinder would be extremely difficult given the existing space and piping configuration, we recommend that Algonquin consider replacing these screens with 6-millimeter reciprocating stair screens, which are highly reliable, have low maintenance requirements, and require no upstream coarse screen.

We believe that the new screens could be cost-effectively integrated into the facility by re-using the existing screens as by-pass (or peak-flow) units. If new screens were installed to eliminate any unscreened wastewater bypassing, the mixed liquor could then be re-screened without the temporary unit. Alternately, a self-contained reciprocating stair screen could be utilized as the temporary re-screening unit and then installed as a permanent primary-screen replacement after the re-screening is complete.

4.2 Unclogging the Jet-Aeration Nozzles

As stated in Section 3, the nozzle openings for the jet-aeration headers are small enough to be clogged by large solids in the mixed liquor, and it appears that significant clogging has occurred in many of the jet-aeration headers, especially in the Anoxic Reactor. In many jet-aeration-type biological systems there is some way to back-flush the nozzles to remove clogged material, either an air-lift pipe that uses the process air to reverse the flow through the nozzles, or a dedicated pump that is used to draw flow back through the header. In the Palm Valley WRF jet-mix headers, however, the current piping configuration provides no means of back-flushing.

In the longer term, when the plant is expanded and the existing basins can be taken out of service, it is recommended that a back-flushing header be added to each basin and piped to a dedicated back-flushing pump. In the meantime however, an alternate means should be sought to back-flush or otherwise unclog the nozzles.

4.2.1 Suggestions for Further Review

Some potential mitigation measures that might be considered for further investigation include:

- Reverse-Flow Submersible Pump – based on discussions with Flygt, it appears that the manufacturer has in the past provided pumps configured to *reverse* the flow through the submersible. Assuming this is the case, one such pump configured for reverse flow could be used to flush the headers one by one on a periodic basis until a permanent back-flushing system can be installed. Although the manufacturer warned that such a pump will have a low efficiency, the benefits would far outweigh this drawback because there is no other way to easily back-flush

the nozzles. We recommend that Algonquin work with Flygt and an engineer to determine the feasibility of this approach.

- One-Time Cleaning – the nozzles could also be cleared by utilizing a diver with a cleaning rod and a high-pressure hose. However, because the high costs involved would make such cleanings impractical on a regular basis some means of preventing re-clogging would be needed, such as installing high-grade chopper pumps in place of the existing motive pumps. If the reverse-flow pump approach turns out to be infeasible, we recommend that a one-time cleaning and chopper pumps be considered until all the mixed liquor can be properly re-screened.

4.3 Minimizing Fats, Oils and Grease (FOGs)

Like the challenges posed by large solids, the challenges created by FOGs have an impact on many areas of the plant. The FOGs can cause foaming, increase odor problems, reduce the efficiency of (or even blind) the tertiary filters, and create performance problems in the UV disinfection system. Currently there is no process or means for reducing or removing FOGs anywhere in the facility treatment train.

In the longer term, when the plant is expanded and the existing basins can be taken out of service, it is recommended that a scum collection system be installed in the Anoxic and SBR basins. In the meantime however, alternate means should be sought to minimize and remove FOGs from the process.

4.3.1 Suggestions for Further Review

Some potential mitigation measures that might be considered for further investigation include:

- FOG-Reducing Additives – There are a number of chemical and biological additives on the market that are designed to reduce FOGs in the biological process. Products such as BioCope ERI and Advanced BioCatalytics Accell are additives that have been found to significantly reduce FOG accumulation by enhancing the ability of the biological system to break down FOG compounds. (BioCope is currently being used by Algonquin at its Boulder Drive facility.) Because the cost of temporary trials is relatively low and the benefit potentially high, it is recommended that FOG-reducing additive testing be initiated as soon as possible.
- SBR Minimum-Level Adjustment – According to the operations staff the SBRs are decanted until the decanters draw air. To prevent FOGs and other floatables from passing through to the filters, it is recommended that the minimum level in the SBRs be set to at least 3 to 6 inches above the decanter openings. This will allow the biological process to have more time to break down the FOGs and also prevent any mixed liquor from filling the annular space in the decanters during the other cycles.

- Skimming Return Cycle – Another controls adjustment that could help the biological system break down the FOGs might be to utilize the RAS troughs as skimmers during the mix and settle cycles by setting the level just above the trough weir for some period of time to skim the FOGs and floatables and return them to the anoxic basin. However, the controls would have to be configured such that the overall RAS rates still provide optimal treatment.
- Surge Tank Baffle – One way to reduce the floatables and FOGs that get into the surge tank would be to install an underflow baffle at the upstream end of the serpentine. Such a baffle could enable periodic manual removal by temporarily trapping a portion of the FOGs and floatables in an area accessible by the operators.

4.4 Reconfiguring and Augmenting the Odor Control System

As stated in Section 3, the odor control design appears to be based on drawing air from the process and digester basins *through* the odor-controlled rooms, but since input air can be drawn from various areas, the entire volume of all air space is drawn through the system in parallel, significantly reducing the air change per hour. Moreover, there are no apparent automatic or manual dampers on either the odor control duct lines or the buildings, which would mean there is no way of balancing the air into the system. While the new polishing unit should be effective on removing constituents that are not removed by the existing units, it will not increase the air changes or improve the environment in the odor-controlled rooms.

4.4.1 Suggestions for Further Review

Some potential mitigation measures that might be considered for further investigation include:

- Separating the Basins from the Rooms – One possibility for improving the system would be to seal off the basins from the equipment rooms and dedicate the existing scrubber system to the basins alone. As that is done, a room-dedicated system could be installed to provide the full 12 air changes per hour for the headworks and solids dewatering rooms. A significant benefit of this alternative would be that the wet and corrosive air from the tanks would not be drawn through the equipment rooms.

It is recommended that an ion-exchange system by IONstein Air Technologies be considered as the treatment unit for the equipment room. This type of unit treats the air in the room, as opposed to drawing it out of the room for treatment, and would have the advantage of improving the environment in the room and reducing the possibility of odors escaping through an open door. It is possible that the manufacturer would be willing to pilot such a unit prior to purchase to demonstrate successful performance.

- Direct Ducting to Carbon Scrubber – Along with separating the equipment rooms from the basins, a great deal of flexibility could be added to the system by installing new ductwork to allow the new carbon scrubber to draw directly from the equipment rooms. This would enable the new scrubber to increase the air changes in the rooms if necessary or be switched back to polish the exhaust of the existing scrubbers. It would also enable the equipment rooms to be separated from the basins during the transition if a new system is piloted or installed for the equipment rooms.
- Air Balancing – If, instead of the suggestions listed above, Algonquin decides to proceed with the more expensive option of replacing the existing scrubbers with much larger units, it is highly recommended that the air system be redesigned to seal off unintended air inlets and enable balancing of the air flow with automatic louvers and dampers.

5.0 CHALLENGES FOR FUTURE TREATMENT CAPACITY

In addition to all the facility challenges with the Palm Valley facility, LPSCO is challenged with a situation where influent flows that are increasing at an advanced pace. According to the operations staff the current facility, designed for an average flow of 4.1 mgd, has insufficient peaking or redundant capacity to accommodate the expected flows.

5.1 Timing of Future Expansions

According to Algonquin, the existing plan for accommodating future flows is to expand the Palm Valley WRF to its designed build-out capacity of 8.2 mgd, and to construct a new WRF facility at the Sarival site with an initial capacity of 1 to 2 mgd expandable to 8.2 mgd. However, at this stage it is unlikely that Algonquin will be able to design and construct either the second phase of the Palm Valley WRF or the first phase of the Sarival WRF before the current treatment capacity is exceeded. A contingent plan is being developed whereby a connection to the collection system for the City of Goodyear would be constructed to accommodate excess flows; however Algonquin has indicated that they would prefer to treat all of the wastewater from their service area if possible.

5.2 Expansion Area and Setback Limitations at Palm Valley WRF

The planned Phase 2 expansion of the Palm Valley WRF will face a number of challenges based on the layout of the original facility plan because the WRF was built on an extremely limited footprint area. There is virtually no room to add any equipment or structures that were not planned for in the original build-out expansion facility plan, let alone for adding additional equipment or structures that were not planned. (Actually, even with the original facility plan, finding room for construction equipment and material lay-down areas during construction will be a severe challenge.) It may also be problematic that

the Phase 2 expansion area is located on the east side of the facility, closer to the commercial center that has been the source of most of the odor complaints since the construction of the first phase. And, making matters worse, residential homes have been built inside the intended odor easement north of the facility in recent months.

6.0 NEAR-TERM TREATMENT CAPACITY ALTERNATIVES

Based on the flow rates currently being experienced at the plant it appears that the facility is quickly reaching its maximum hydraulic and biological treatment capacity. This will present an all-encompassing challenge to the LPSCO wastewater treatment facilities that eclipses those identified in Section 3 because, even with alternative procurement methods such as design-build or CM@Risk, it is unlikely that the Phase 2 expansion of the plant could be designed and constructed in time to accommodate the peak flows starting in November or December of 2007.

However, based on the analysis by MES developed for this study, it appears that there are a few alternatives that would serve to expand redundant capacity in the near term without jeopardizing future capacity expansions while staying within the existing planned footprints for both the Palm Valley and Sarival sites. These include the following:

- Installing a temporary package plant at the Sarival site and reversing the flow in the force main from the Sarival Pump Station to convey excess flow from the Palm Valley WRF
- Using a pre-engineered submerged membrane filtration system to increase the redundant capacity at the Palm Valley WRF by eliminating the decant cycle and possibly running at higher MLSS concentrations
- Increasing the peaking and redundant capacity of the existing Palm Valley WRF by converting the digester tanks to SBR tanks and producing non-Class B dewatered biosolids for landfill disposal.

6.1 Temporary Package Plant at the Sarival Site

One possibility to relieve the Palm Valley WRF of peak flows in the near term would be to install a temporary package plant at the Sarival site and use the existing force main from the Sarival Lift Station to convey flow from the Palm Valley WRF to the Sarival package plant. This would relieve the peak flows from the Palm Valley WRF and allow time for Phase 1 of the (permanent) Sarival WRF and Phase 2 of the Palm Valley WRF to be designed and constructed.

To be able to reliably accommodate excess flows for the period required, the size of the package plant would need have a treatment capacity of between 0.5 and 1.0 mgd at an approximate cost of \$5M to

\$10M. The main drawbacks of this alternative are that the costs of the package system would be difficult to recoup once the permanent facility was brought on line, and it is not certain whether or not the package facility could be permitted, designed, and constructed at the site before the end of 2007.

6.2 Pre-Engineered Submerged Membrane Filtration System

One way to expand the treatment capacity at the existing Palm Valley WRF would be to add a skid-mounted, pre-engineered submerged membrane filtration system to the process. Such a system would increase the capacity of the SBRs by eliminating the decant cycles and enabling operation at significantly higher MLSS concentrations. Based on preliminary calculations, adding a membrane system could increase the capacity of the plant by approximately 15-20 percent, or 0.6 to 0.8 mgd, at a cost of approximately \$5M for the membrane equipment alone. Other upgrades such as aeration capacity and MLR pumps would also be required. In addition, because the membranes are sensitive to abrasive materials and fibers, this alternative would absolutely require re-screening of the mixed liquor and installation of fine screens with openings as small as 2 millimeters.

Based on a review of the Palm Valley site plan, it appears that the only feasible location for the addition of such a system would be at the south end of the existing SBR basins, the current location of the visitor parking lot. While there are areas available to the east, it seems likely that locating the membrane filtration system in this area would interfere with the Phase 2 expansion of the facility.

Aside from the capital costs and the loss of the parking area, the main drawback of this alternative would be the cost and complexity of maintaining a submerged membrane filtration system, including the membrane cleaning and chemical systems, power costs, and membrane replacement costs.

6.3 Conversion of Digester Tanks to SBR Tanks

Another way to expand the peaking and redundant treatment capacity of the Palm Valley WRF would be to convert the existing digester tanks to SBR process basins. This would be a fairly straight-forward conversion because the digester tanks are already configured similar to the SBR tanks, with jet-aeration headers and submersible motive pumps. Based on a cursory review of the plans, as a minimum the following items would need to be modified to make the conversion:

- Configure the influent piping and controls from the anoxic tank to feed the additional SBR basins
- Add jet-aeration headers and blower capacity to increase the aeration in the new tanks
- Install decanters and piping to direct secondary effluent into the surge tank
- Add a return trough and piping back to the anoxic tank
- Increase the capacity of the downstream processes, including the filters and UV system

The existing SBR tanks have a treatment capacity of approximately 4.1 mgd with an operating volume of approximately 3.1 million gallons, indicating a SBR treatment-to-volume ratio of approximately 1.3. If converted, the digester tanks would provide up to about 1.3 million gallons of additional SBR treatment volume, which converts to up to 1.7 MGD of additional redundant/peaking treatment capacity. Even with an allowance factor for unforeseen items in the conversion, *this alternative could be able to provide up to 1.5 MGD of additional plant capacity for peaking or redundancy purposes.* Based on the assumed requirements for the conversion, it is expected that the design and construction could be completed within about 9 months under a CM@Risk procurement structure.

An additional benefit of this alternative would be that it would have little to no effect on the construction, operation or capacity of the Phase 2 expansion. Of course, removing the digester tanks from the solids handling process would mean that the facility could no longer produce Class B biosolids. However, if the ATAD tanks are used strictly for aerated sludge storage and equalization, the sludge could still be dewatered on-site to meet the paint-filter-test standard for landfill disposal. Alternatively, all solids handling could be removed from the Palm Valley plant and the sludge could be transported to the Sarival WRF by way of the existing force main (in reverse) once that facility is constructed and brought on line.

6.4 Recommended Near-Term Capacity Expansion Alternative

Although each of the three alternatives described above have the potential of providing a solution to the near-term redundant/peaking wastewater treatment capacity shortfall, because of its simplicity, low risk, moderate capital costs, and minimal impact to future expansions, we recommend that the third option, conversion of the digester tanks to SBR process basins, be planned and executed as soon as possible. We recommend that Algonquin commission a feasibility study to determine the precise requirements of the conversion, and then execute a CM@Risk procurement to construct the new facilities for start-up and commissioning before the end of 2007.

7.0 SUMMARY OF RECOMMENDATIONS

To be completed...

LITCHFIELD PARK SERVICE COMPANY

DOCKET NO. SW-01428A-09-0103 et al.

SURREBUTTAL TESTIMONY

OF

SONN ROWELL, CPA

ON BEHALF OF

THE

RESIDENTIAL UTILITY CONSUMER OFFICE

DECEMBER 17, 2009

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15 EXHIBIT 3 – LPSCO FAQ's

1 **I. INTRODUCTION**

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

3 A. My name is Sonn S. Rowell. I am a Certified Public Accountant and Utility
4 Consultant. I am also a managing member of Desert Mountain Analytical
5 Services, PLLC ("DMAS"), PO Box 51628, Phoenix, AZ, 85076.

6
7 **Q. Please state the purpose of your Surrebuttal Testimony.**

8 A. The purpose of my Surrebuttal Testimony is to respond to the Rebuttal
9 Testimony of Litchfield Park Service Company ("LPSCO") regarding the
10 expense and plant adjustments I proposed in my Direct Testimony.

11
12 **Q. Have you filed any prior testimony in this case on behalf of RUCO?**

13 A. Yes. On November 4, 2009 I filed Direct Testimony on behalf of RUCO.

14
15 **Q. Please identify the exhibits you are sponsoring.**

16 A. Surrebuttal Exhibit 1 contains schedules detailing the revenue
17 requirement, recommended adjustments to expenses, plant in service and
18 rate base of LPSCO's water division. Surrebuttal Exhibit 2 contains the
19 same schedules and information for LPSCO's wastewater division.
20 Exhibit 3 is an excerpt from LPSCO's FAQ web page.

21
22 ...

23

1 **Q. Please explain how your Surrebuttal Testimony is organized.**

2 A. This Surrebuttal Testimony will discuss the revenue requirement,
3 surrebuttal rate base adjustments, surrebuttal plant adjustments, and
4 surrebuttal operating income adjustments for LPSCO's Water Division,
5 and then Wastewater Division. The Surrebuttal Schedules and Testimony
6 mainly include only adjustments that have changed or been added since
7 the filing of my Direct Testimony. Details of adjustments contained within
8 my Direct Testimony that have not been altered are not repeated in these
9 Surrebuttal schedules or in this Surrebuttal Testimony.

10
11 **II. WATER DIVISION**

12 **1. Revenue Requirement Surrebuttal Schedule 1 – Water Division**

13 **Q. Please discuss your recommended surrebuttal revenue requirement**
14 **for LPSCO's Water Division.**

15 A. RUCO is recommending a revenue requirement of \$11,555,325 for
16 LPSCO's water division. This represents a \$4,676,615 increase, or
17 67.99% above RUCO's adjusted test year water revenues of \$6,878,710.
18 This compares with LPSCO's rebuttal request for a revenue requirement
19 of \$13,637,738 for its water division, which would necessitate a
20 \$6,759,028 increase to LPSCO's adjusted test year water revenues, or a
21 98.26% increase.

22

23

1 **2. Rate Base Surrebuttal Schedule 2 – Water Division**

2 **Q. Please explain Rate Base Adjustment No. 1.**

3 A. This adjustment decreases Gross Utility Plant in Service (“UPIS”) by
4 \$642,746 to account for RUCO’s recommended changes to Plant in
5 Service as detailed on Schedule 3. Adjustment 1 also reduces
6 accumulated depreciation by \$138,173 per Surrebuttal Schedule 2, Page
7 2 of 4. This schedule details the differences between RUCO’s calculation
8 of depreciation expense by year, and ultimately test year end accumulated
9 depreciation, and the amount used by the Company, resulting from
10 differences in UPIS.

11
12 **Q. Does Rate Base Adjustment No. 2 reflect a change from your Direct**
13 **Testimony?**

14 A. Yes. Per Company Rebuttal Testimony, unamortized Debt Issuance
15 Costs have been removed to “help eliminate disputes between the parties”
16 (Bourassa Dt. at 13, line 12). As a result, RUCO’s adjustment has been
17 increased to remove this cost from rate base.

18
19 **Q. Do you agree with LPSCO’s argument regarding Adjustment No. 3**
20 **and the “double counting” regarding the rate base portion and**
21 **amortization expense of the deferred regulatory costs?**

22 A. No. RUCO’s adjustment serves to allow the Company to earn a return on
23 prudently spent money in rate base while beginning to recover a portion of

1 that cost each year in expense. Of course, the final treatment of these
2 deferred costs will depend on how the Accounting Order contained in
3 Decision 69912 is interpreted.
4

5 **Q. Are Rate Base Adjustments No. 4 and No. 5 new?**

6 A. Yes, both of these adjustments are the direct result of information
7 contained within the Company Rebuttal Testimony. Adjustment 4
8 decreases AIAC by \$8,677 and CIAC by \$7,888. This corresponds with
9 the UPIS retirement adjustment for the Litchfield Green's Booster Station
10 on Surrebuttal Schedule 3, Page 2 of 4, adjustment 2. Adjustment 5
11 removes \$68,685 from Customer Meter Deposits as the Company asserts
12 this amount represents Security Deposits, not Meter Deposits, and was
13 included in Rate Base originally in error.
14

15 **Q. Please explain Surrebuttal Rate Base Adjustment No. 6.**

16 A. This adjustment increases LPSCO's Deferred Income Taxes from \$24,518
17 to \$446,530. The support for this adjustment is contained on Schedule 2,
18 Page 4 of 4, (5 pages), Calculation of Estimated Deferred Income Taxes.
19
20
21
22
23

1 **3. Utility Plant in Service Surrebuttal Schedule 3 – Water Division**

2 **Q. Please discuss RUCO's Surrebuttal Plant adjustments.**

3 A. RUCO is recommending a reduction in Gross Water Utility Plant in Service
4 of \$642,746.
5

6 **Q. Please identify which of RUCO's Plant Adjustments are different**
7 **from your Direct Testimony.**

8 A. RUCO Adjustments 15 and 17 on Surrebuttal Schedule 3, Page 3, and
9 RUCO Adjustments 19, 21, 23, and 24 on Surrebuttal Schedule 3, Page 4.
10

11 **Q. Explain each of these adjustments please.**

12 A. RUCO Adjustment 15 eliminated the \$19,000 reduction as the Company
13 produced an invoice to support this amount. Adjustment 17 related to
14 invoices from Hughes Supply, Courtesy Chevrolet, and W. Fisher was
15 removed in its entirety. Adjustments 19 and 21 remove amounts that
16 decreased electric pumping equipment invoiced from CH2OICE Pump.
17 Adjustment 23 increases the amount capitalized from expense from
18 \$9,714 to \$19,989 (\$10,275), and corresponds to Surrebuttal Schedule 4,
19 Page 3 of 9. Finally, Adjustment 24 increases water treatment plant by
20 \$18,805 for post test year arsenic treatment equipment as recommended
21 by Staff Engineer, and per Company Rebuttal Schedule B-2, Page 3.
22

23 ...

24

1 **Q. Does the Company agree with your adjustments to remove**
2 **capitalized affiliate labor?**

3 A. No. LPSCO states detail of the capitalized labor was provided in a work
4 paper in response to the fact that the source documentation was
5 determined to be inadequate by RUCO. RUCO maintains that a work
6 paper file without sufficient supporting documentation, especially with
7 affiliated transactions, is not proper accounting practice.

8

9 **4. Operating Income Surrebuttal Schedule 4 – Water Division**

10 **Q. Please identify which of RUCO's Operating Income Adjustments**
11 **have changed since your Direct Testimony was filed.**

12 A. Changes were made to Adjustments 3, 4a, 4b, 4d, 7, 9a, 9b, 10, and 11,
13 as detailed on Surrebuttal Schedule 4, Pages 1 through 9.

14

15 **Q. Begin by explaining the changes to Adjustment 3, and please**
16 **respond to LPSCO's argument that RUCO's adjustment contained**
17 **errors.**

18 A. Adjustment 3 was changed to remove 3 items that the Company reversed
19 out of expense, and therefore were not included in test year expenses.
20 While this appears to be the case for three of the amounts RUCO
21 recommended be removed from expense, (\$213, \$228, and \$814), the
22 fourth amount they Company states was reversed (\$749) was debited and

1 credited in the general ledger several times, but ultimately appears to be
2 part of test year expenses. As a result, this amount will remain in
3 Adjustment 3, along with the \$305 LPSCO agrees with.
4

5 **Q. Explain the changes to Adjustment 4a.**

6 A. This adjustment does not change the amount of the total decrease to
7 Outside Services – Other from \$29,626. What it does is change the
8 adjustment reason for three invoices from Southwest Ground-water
9 Consultants (\$1,380, \$4,072, and \$4,823 totaling \$10,275) from
10 disallowance as a non-recurring expense, to reclassification in a plant
11 account as was discussed above.
12

13 **Q. Please continue with Adjustments 4b and 4d.**

14 A. Adjustment 4b was decreased to \$286,799, and 4d was eliminated in its
15 entirety. The reasons for these changes are addressed in the Surrebuttal
16 Testimony of Matthew Rowell.
17

18 **Q. Explain Adjustment 7.**

19 A. Adjustment 7 decreases Rate Case Expense by \$28,000 to match the
20 recommendation of Staff in its Direct Testimony. RUCO originally
21 recommended a \$20,000 decrease in this account based upon a \$150,000
22 cost per division amortized over three years. In this case as most, 5 years
23 is a more appropriate amortization period, so we will allow the full amount

1 the Company is requesting (which they state is low) as Staff is, but
2 increase the amortization period from 3 years to 5 years.
3

4 **Q. Why did Adjustment 9a change?**

5 A. Depreciation expense changed due to adjustments made to UPIS
6 accounts for this Surrebuttal Testimony.
7

8 **Q. Please explain Adjustment 9b.**

9 A. The Company was seeking to include \$11,465 in the depreciation
10 expense category related to amortization of unamortized debt issuance
11 costs. RUCO has changed this adjustment to remove this amount from
12 the income statement as we agree with Staff¹ that this is a below-the-line
13 expense like interest, and should be treated as such.
14

15 **Q. Please explain Adjustment No. 10 to Property Tax expense.**

16 A. The method RUCO uses to calculate property taxes has changed, but was
17 not used in the Direct Testimony filed for the LPSCO rate cases.
18 Surrebuttal Schedule 4, Page 8 of 9, reflects the appropriate method.
19

20 **Q. Finally, Adjustment No. 11 changed as well?**

21 A. Yes. Test Year income tax expense changed as a result of the
22 adjustments to test year operating expenses as described above.

¹ Michlick Dt at 12

1 **Q. Do you want to address any of the Company's comments regarding**
2 **other expense adjustment issues?**

3 A. Yes. First in reference to LPSCO rebuttal adjustment number 3 to remove
4 meals and entertainment expenses from Miscellaneous expense, Mr.
5 Bourassa stated that RUCO did not make this adjustment as Staff did, and
6 now the Company proposes to make this adjustment as well (\$827).
7 RUCO did in fact include this amount in its Direct Testimony as part of the
8 total adjustment of \$22,027, as reflected by Adjustment No. 8 on Schedule
9 4, Page 11 of 15, and as a result, does not change Adjustment 8.

10
11 **Q. How do you respond to LPSCO's statement that RUCO's proposed**
12 **water rates generate too much revenue by approximately \$1.4**
13 **million?**

14 A. Unfortunately, that is very possible. While doing rate design for
15 surrebuttal, I discovered the program that I have used for many years to
16 do bill counts has a problem generating the correct revenue amount on
17 the larger size meters when the first tier break exceeds 100,000 gallons.
18 This is not a problem I had encountered prior to this case, since an
19 extremely high first tier break amount is fairly new. My Surrebuttal
20 Testimony rate design corrects the problems of the Direct Testimony rate
21 design, and is summarized Surrebuttal Schedule 5.

22
23

1 **III. WASTEWATER DIVISION**

2 **1. Revenue Requirement Surrebuttal Schedule 1 – Wastewater Division**

3 **Q. Please discuss your recommended Surrebuttal revenue requirement**
4 **for LPSCO's Wastewater Division.**

5 A. RUCO is recommending a revenue requirement of \$8,741,497 for
6 LPSCO's wastewater division. This represents a \$2,382,310 increase, or
7 37.46% above RUCO's adjusted test year water revenues of \$6,359,187.
8 This compares with LPSCO's rebuttal request for a revenue requirement
9 of \$11,132,993 for its wastewater division, which would necessitate a
10 \$4,776,618 increase above LPSCO's adjusted test year wastewater
11 revenues, or a 75.15% increase.

12
13 **2. Rate Base Surrebuttal Schedule 2 – Wastewater Division**

14 **Q. Please explain Rate Base Adjustment No. 1.**

15 A. This adjustment decreases Gross Utility Plant in Service ("UPIS") by
16 \$5,464,782 to account for RUCO's recommended changes to Plant in
17 Service as detailed on Schedule 3. Adjustment 1 also reduces
18 accumulated depreciation by \$191,927 per Surrebuttal Schedule 2, Page
19 2 of 3. This schedule details the differences between RUCO's calculation
20 of depreciation expense by year, and ultimately test year end accumulated
21 depreciation, and the amount used by the Company, resulting from
22 differences in UPIS.

1 **Q. Will you address LPSCO's assertions that some of RUCO's**
2 **adjustments to accumulated depreciation are incorrect?**

3 A. Yes. First, the Company discusses a \$10,000 difference between RUCO
4 and Staff regarding lift station retirements, and this amount applies to both
5 UPIS and accumulated depreciation since the amounts in question
6 represent a plant retirement. RUCO does not believe its adjustment is
7 incorrect, and the reasons for this conclusion are discussed in more detail
8 in the plant adjustment section of this Surrebuttal Testimony. Second, the
9 Company discovered that accumulated depreciation had not been
10 adjusted for the retirement of the Litchfield Greens lift station in the
11 amount of \$96,926, which is now included on Surrebuttal Schedule 2,
12 Page 2, on line 20. Finally, RUCO included \$11,040 on line 21 of that
13 same schedule for accumulated depreciation related to the transfer of
14 assets from LPSCO to Black Mountain Sewer.

15
16 **Q. Does Rate Base Adjustment No. 2 reflect a change from your Direct**
17 **Testimony?**

18 A. Yes. Per Company Rebuttal Testimony, unamortized Debt Issuance
19 Costs have been removed to "help eliminate disputes between the parties"
20 (Bourassa Dt. at 13, line 12). As a result, RUCO's adjustment has been
21 increased to remove this cost from rate base.

22
23

1 **Q. Did you remove Rate Base Adjustment No. 3.**

2 A. Yes. Rate Base Adjustment No. 3 was deleted based upon information
3 contained in the Company Rebuttal Testimony that indicated this amount
4 was in AIAC.

5

6 **Q. Are Rate Base Adjustments No. 4 and No. 5 new?**

7 A. Yes. Both of these adjustments are the direct result of information
8 contained within the Company Rebuttal Testimony. Adjustment 4
9 decreases AIAC by \$16,649 and CIAC by \$93,346. This corresponds with
10 the UPIS retirement adjustment for the Wigwam, Bullard, and Litchfield
11 Green lift stations on Surrebuttal Schedule 3, Page 2 of 4, adjustments 3
12 and 4. Adjustment 5 removes \$68,685 from Customer Meter Deposits as
13 the Company asserts this amount represents Security Deposits, not Meter
14 Deposits, and was included in Rate Base originally in error.

15

16 **Q. Can you explain the \$10,000 difference between plant retirement and**
17 **accumulated depreciation amounts related to the above lift station**
18 **retirements that is referenced in footnote 30 on page 20, and**
19 **footnote 36 on page 21 of Mr. Bourassa's Rebuttal Testimony?**

20 A. Yes. First, footnote 30 states RUCO Adjustments 3 and 4 to UPIS total
21 \$544,977, and the Direct Testimony of Staff for the wastewater division
22 totals to \$554,977 as reflected on page 7, resulting in a difference of
23 \$10,000 related to the lift station retirements.

1 **Q. So, did RUCO increase its adjustment amount by \$10,000?**

2 A. No. RUCO amounts came directly from a spreadsheet provided in
3 response to a Staff Engineering data request, MSJ ENG 2-1(C ii-v)
4 Wigwam.xls. The costs referenced on those worksheets related to the
5 retirement of the Wigwam lift station total \$261,364, which is the amount
6 RUCO used to retire the Wigwam lift station. It appears, rightfully so, that
7 Staff may have gotten its retirement amounts for the Wigwam lift station
8 directly from LPSCO's response to its Staff Engineering Data Request
9 dated September 3, 2009. Item 1) c. iii., regarding account 361 states
10 \$14,289 is the amount for collection sewers – gravity, which differs from
11 the amount for that same plant category in MSJ ENG 2-1(C ii-v)
12 Wigwam.xls. RUCO notes the name of the spreadsheet it was provided
13 differs by the letter "C" when compared to the spreadsheet referenced in
14 data response item 1) c. iii., leading to the conclusion there must be
15 several versions in existence.

16
17 **Q. Is this the first time that the Company provided information that does**
18 **not match?**

19 A. No. As delineated in RUCO's Direct Testimony and this Surrebuttal
20 Testimony, LPSCO has provided amounts in data responses that do not
21 reconcile back to source documentation, the general ledger, or other
22 schedules provided, especially in the area of affiliated transactions. Mr.
23 Bourassa claims all this information has been provided to RUCO,

1 however, examples of differences like the small one highlighted above
2 make reconciliation between LPSCO's many provided amounts difficult at
3 best.

4
5 **Q. Are LPSCO's source documentation and reconciliation problems you**
6 **reference above the main part of the reason why you disallow all**
7 **capitalized affiliate labor not properly supported?**

8 A. Yes. However, the lack of adequate source documentation is the primary
9 reason for the recommended disallowance.

10
11 **Q. Please explain Rate Base Adjustment No. 6.**

12 A. This adjustment increases the Company's deferred income taxes from
13 \$15,987 to \$333,803. The support for this adjustment is contained on
14 Schedule 2, Page 3 of 3, (5 pages), Calculation of Estimated Deferred
15 Income Taxes.

16
17 **3. Utility Plant in Service Surrebuttal Schedule 3 – Wastewater Division**

18 **Q. Please discuss RUCO's Surrebuttal Plant adjustments.**

19 A. RUCO is recommending a reduction in Gross Wastewater Utility Plant in
20 Service in the amount of \$5,464,782.

21
22 ...

23

1 **Q. Please identify which of RUCO's Plant Adjustments are different**
2 **from your Direct Testimony.**

3 A. RUCO Adjustments 1 and 5 on Surrebuttal Schedule 3, Page 2, and
4 RUCO Adjustment 21 on Surrebuttal Schedule 3, Page 4.

5
6 **Q. Explain each of these adjustments please.**

7 A. RUCO Adjustment 1 in the amount of \$1,230,049 was deleted. In its
8 Rebuttal Testimony, LPSCO states this amount was related to a sewer
9 line RUCO classified as CWIP during the last rate case, but Staff and the
10 Company classified it as UPIS, and included it in rate base. After
11 reviewing plant additions in this category, RUCO believes this amount
12 should properly be included in UPIS, and removed this adjustment.

13
14 **Q. Why did Adjustment 5 change?**

15 A. This adjustment amount was changed to \$38,250 as a result of updated
16 amounts provided by the Company in Rebuttal Schedule B-2, Page 3.2.

17
18 **Q. You also stated that RUCO Adjustment 21 changed, please explain.**

19 A. This adjustment is an addition since Direct Testimony was filed, and is
20 meant to address LPSCO Rebuttal Adjustment D to UPIS from Rebuttal
21 Schedule B-2, Page 3. In that adjustment, the Company is proposing to
22 increase account 354 by \$7,072, however, RUCO has not been able to
23 locate an explanation of this amount either in the testimony or schedules.

1 Assuming this was intended to be a corresponding entry to remove rent
2 costs from UPIS in the water division (even though it was an increase to
3 plant, not a decrease), RUCO determined from the source documentation
4 the amount of rent expense capitalized for the wastewater division was
5 actually \$1,768, not \$7,072.

6
7 **Q. Do you agree with the Company's proposal to capitalize expenses in**
8 **addition to those proposed by RUCO in Adjustments 6 and 7?**

9 A. No. The Company recorded these items originally as expenses outside
10 the test year. If LPSCO believed these items should have been
11 capitalized, opportunities to make this adjustment should have occurred in
12 closing 2007 books, or in the preparation of a rate case test year
13 comprised of part of 2007 and part of 2008. Failing this, the Company
14 must have concluded this should be part of test year expenses, however,
15 the invoices related to the \$8,054 and the \$525 LPSCO seeks not only
16 reference repairs, they are dated outside the test year.

17
18 **4. Operating Income Surrebuttal Schedule 4 – Wastewater Division**

19 **Q. Please identify which of RUCO's Operating Income Adjustments**
20 **have changed since your Direct Testimony was filed.**

21 A. Changes were made to Adjustments 4b, 4c, 11a, 11b, 12, 13, and 14 as
22 detailed on Surrebuttal Schedule 4, Pages 1 through 7.

23

1 **Q. Begin by explaining how Adjustment 4b changed.**

2 A. This change is comprised of two parts. The original amount of this
3 adjustment related to AWS reconciling fees to 4 factor have been
4 removed. Further information related to this adjustment is addressed in
5 the Surrebuttal Testimony of Matthew Rowell. Second, RUCO adopted
6 Company Adjustment 3 as reflected on Rebuttal Schedule C-2, Page 4
7 related to Aerotek services in the amount of \$42,000.

8
9 **Q. What about the decrease to Adjustment 4c?**

10 A. The changes related to this adjustment are addressed in the Surrebuttal
11 Testimony of Matthew Rowell as well.

12
13 **Q. Why did Adjustment 11a change?**

14 A. Depreciation expense changed due to adjustments made to UPIS
15 accounts for this Surrebuttal Testimony.

16
17 **Q. Please explain Adjustment 11b.**

18 A. The Company was seeking to include \$14,658 in the depreciation
19 expense category related to amortization of unamortized debt issuance
20 costs. RUCO has changed this adjustment to remove this amount from
21 the income statement as we agree with Staff² that this is a below-the-line
22 expense like interest, and should be treated as such.

² Michlick Dt at 12

1 **Q. Please explain Adjustment No. 12 to Property Tax expense.**

2 A. The method RUCO uses to calculate property taxes has changed, but was
3 not used in the Direct Testimony filed for the LPSCO rate cases.
4 Surrebuttal Schedule 4, Page 6 of 7, reflects the appropriate method.

5 **Q. Adjustment No. 13 changed as well?**

6 A. Yes. Test Year income tax expense changed as a result of the
7 adjustments to test year operating expenses as described above.

8

9 **Q. Finally, explain Adjustment No. 14 to rate case expense.**

10 A. My reason for adjusting rate case expense for the wastewater division is
11 the same as my adjustment to rate case expense for the water division.
12 Recommended rate case expense in total is shared equally by both
13 divisions.

14

15 **Q. Do you want to address any of the Company's comments regarding
16 other expense adjustment issues?**

17 A. Yes. First in reference to LPSCO rebuttal adjustment number 4 to remove
18 meals and entertainment expenses from Miscellaneous Expense, Mr.
19 Bourassa stated that RUCO did not make this adjustment as Staff did, and
20 now the Company proposes to make this adjustment as well (\$494).
21 RUCO did in fact include this amount in its Direct Testimony as part of the
22 total adjustment of \$6,409, as reflected by Adjustment No. 9 on Schedule
23 4, Page 14 of 19, and as a result, no changes are made to Adjustment 9.

1 **Q. How do you respond to LPSCO's statement that RUCO's proposed**
2 **rate schedule for wastewater was not included in its Direct**
3 **Testimony?**

4 A. It is unclear why Mr. Bourassa made this statement. A check of eDocket
5 on the ACC website shows that my Direct Testimony included a
6 Wastewater Revenue Summary and Rates, Schedule 5, Page 1 of 1. This
7 schedule contained both proof of revenue as well as RUCO proposed
8 rates. I have included a revised copy of Schedule 5 to reflect surrebuttal
9 adjustments as Surrebuttal Schedule 5, Page 1 of 1.

10
11 **Q. Do you agree with the Company's statement that \$1.50 per thousand**
12 **gallons for effluent is "excessive"?**

13 A. No. In this current environment, effluent is valuable, has many
14 applications, and is less expensive than potable water. LPSCO's current
15 negotiated contract effluent rates are significantly too low.

16
17 **Q. In his Rebuttal Testimony on Page 30, Mr. Greg Sorensen makes the**
18 **statement that a "significantly higher price" (line 9) "will decrease**
19 **the usage (of effluent) significantly, thus increasing the use of**
20 **groundwater for irrigation" (line 10). Do you agree with his**
21 **conclusion?**

22 A. No. I do not understand why Mr. Sorenson thinks a responsible
23 businessperson would stop using effluent because it increases to \$1.50

1 per thousand gallons when the commodity rates for potable water are
2 significantly higher. In addition, RUCO's rates were not designed to "shift
3 recovery of the revenue requirement away from our residential customers"
4 (Line 13), but to assign a fair rate for a valuable product. This is
5 exemplified by the fact RUCO has not changed the effluent rate for
6 Surrebuttal Testimony.

7

8 **Q. In your Direct Testimony you indicated that LPSCO does not accept**
9 **credit card payments and this was part of the reason why you**
10 **recommended disallowances of merchant fees (Adjustment 8 for**
11 **Water and 9 for Wastewater). Do you have anything further to add**
12 **regarding this point?**

13 **A.** Yes. The response to Staff Data Request JMM 11-5 indicates that "The
14 Company" does accept credit cards. However, since the Company Name
15 listed on the data request response is "Algonquin Power Income Fund" not
16 LPSCO it is unclear which "Company" is being referred to. Additionally, a
17 review of LPSCO's web page does not reveal a credit card payment
18 option. Exhibit 3 is a print out from LPSCO's FAQ web page, and under
19 the question "How do I pay my bill?" credit cards are not listed as an
20 option.

21

22 ...

23

1 **Q. Does your silence on any of the issues, matters or findings**
2 **addressed in the testimony of any of the witness for LPSCO**
3 **constitute your acceptance of their positions on such issues,**
4 **matters or findings?**

5 A. No, it does not.

6

7 **Q. Does this conclude your direct testimony on LPSCO?**

8 A. Yes, it does.

SONN S. ROWELL, CPA
SURREBUTTAL EXHIBIT 1
WATER DIVISION SCHEDULES 1 THU 5

Revenue Requirement

LINE NO.	DESCRIPTION	(A) COMPANY OCRB/FVRB COST	(B) RUCO OCRB/FVRB COST
1	Adjusted Original Cost/Fair Value Rate Base	\$ 37,930,921	\$ 36,946,801
2			
3	Adjusted Operating Income/(Loss)	\$ (282,894)	\$ 322,028
4			
5	Current Rate of Return (L3 / L1)	-0.75%	0.87%
6			
7	Required Operating Income (L9 X L1)	\$ 4,327,918	\$ 3,155,257
8			
9	Required Rate of Return on Fair Value Rate Base	11.410%	8.540%
10			
11	Operating Income Deficiency (L7 - L3)	\$ 4,610,812	\$ 2,833,228
12			
13	Gross Revenue Conversion Factor (Schedule 1, Page 2)	1.6286	1.6506
14			
15	Required Increase in Gross Revenue Requirement (L11 X L13)	\$ 7,509,329	\$ 4,676,615
16			
17	Adjusted Test Year Revenue	\$ 6,475,002	\$ 6,878,710
18			
19	Proposed Annual Revenue (L15 + L17)	\$ 13,984,331	\$ 11,555,325
20			
21	Required Percentage Increase in Revenue (L15 / L17)	115.97%	67.99%
22			
23	Rate of Return on Common Equity	12.500%	8.010%

References:

Column (A): Company Schedules A-1 and C-1
Column (B): RUCO Schedules 2 and 4

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
CALCULATION OF GROSS REVENUE CONVERSION FACTOR:					
1	Revenue	1.0000			
2	Combined Federal And State Tax Rate (Line 12)	(0.3860)			
3	Staff's Effective Property Tax Factor per Schedule JMM W-2	(0.0082)			
4	Subtotal (Line 1 + Line 2 + Line 3)	0.6058			
5	Revenue Conversion Factor (L1 / L4)	1.6506			
6					
CALCULATION OF EFFECTIVE TAX RATE:					
8	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
9	Arizona State Income Tax Rate	6.9680%			
10	Federal Taxable Income (L8 - L9)	93.0320%			
11	Applicable Federal Income Tax Rate (Col. (D), L48)	34.0000%			
12	Effective Federal Income Tax Rate (L10 X L11)	31.6309%			
13	Combined Federal And State Income Tax Rate (L9 + L12)	38.5989%			
14					
15	Required Operating Income (Sch.-1, Pg 1, Col. (B), L7)	\$ 3,155,257			
16	Adjusted T.Y. Oper'g Inc. (Loss) (Sch.-1, Pg 1, C (B), L3)	322,028			
17	Required Increase In Operating Income (L15 - L16)		\$ 2,833,228		
18					
19	Income Taxes On Recommended Revenue (Col. (D), L43)	\$ 1,718,727			
20	Income Taxes On Test Year Revenue (Col. (D), L45)	(62,339)			
21	Required Increase In Revenue To Provide For Income Taxes (L19 - L20)		\$ 1,781,066		
22					
23	Property Taxes on Recommended Revenue (Schedule 4, Col (E), L30)	\$ 339,203			
24	Property Taxes On Test Year Revenue (Schedule 4, Col. C, L30)	276,882			
25	Required Increase In Revenue To Provide For Property Taxes (L23 - L24)		62,321		
26					
27	Total Required Increase In Revenue (Line 17 + Line 21 + L25)		\$ 4,676,615		
28					
CALCULATION OF INCOME TAX:					
30	Revenue (Sch -1, Pg 1, Col. (B), L19)			\$ 11,555,325	
31	Operating Expense Excluding Income Tax (Sch 4, Col. (E), L34 - L31)			6,681,342	
32	Synchronized Interest (Col. (C), L53)			421,194	
33	Arizona Taxable Income (L30 - L31 - L32)			\$ 4,452,790	
34	Arizona State Income Tax Rate			6.9680%	
35	Arizona Income Tax (L33 X L34)				\$ 310,270
36	Fed. Taxable Income (L33 - L35)			\$ 4,142,519	
37	Fed. Tax on 1st Inc. Bracket (\$1 - \$50,000) @ 15%			\$ 7,500	
38	Fed. Tax on 2nd Inc. Bracket (\$50,001 - \$75,000) @ 25%			6,250	
39	Fed. Tax on 3rd Inc. Bracket (\$75,001 - \$100,000) @ 34%			8,500	
40	Fed. Tax on 4th Inc. Bracket (\$100,001 - \$335,000) @ 39%			91,650	
41	Fed. Tax on 5th Inc. Bracket (\$335,001 - \$10M) @ 34%			1,294,557	
42	Total Federal Income Tax (L37 + L38 + L39 + L40 + L41)				1,408,457
43	Combined Federal and State Income Tax (L35 + L42)				\$ 1,718,727
44					
45	Test Year Combined Income Tax, RUCO as Adjusted (Sch 4, Col. (C), L31)				\$ (62,339)
46	RUCO Adjustment To Proposed Income Tax (L43 - L45) (See Sch 4, Col. (D), L31)				\$ 1,781,066
47					
48	Applicable Federal Income Tax Rate (Col. (D), L42 / Col. (C), L36)				34.00%
49					
CALCULATION OF INTEREST SYNCHRONIZATION:					
51	Rate Base			\$ 36,946,801	
52	Weighted Avg. Cost of Debt			1.14%	
53	Synchronized Interest (L35 X L36)			\$ 421,194	

RATE BASE - ORIGINAL COST

LINE NO.	(A) COMPANY AS FILED OCRB/FVRB	(B) RUCO ADJMT No. 1	(C) RUCO ADJMT No. 2	(D) RUCO ADJMT No. 3	(E) RUCO ADJMT No. 4	(F) RUCO ADJMT No. 5	(G) RUCO ADJMT No. 6	(H) RUCO ADJTED OCRB/FVRB
1	Gross Utility Plant in Service	\$ 73,731,714	\$ (642,746)					\$ 73,088,968
2								
3	Accumulated Depreciation	(9,097,645)	138,173					(8,959,472)
4								
5	Net Utility Plant in Service (Sum L1 & L3)	\$ 64,634,069	\$ (504,573)	\$ -	\$ -	\$ -	\$ -	\$ 64,129,496
6								
7	Less:							
8	Advances in Aid Of Construction	\$ (24,583,673)		\$ 8,677				\$ (24,574,996)
9								
10	Contribution in Aid of Const.	\$ (3,104,068)		7,888				(3,096,180)
11	Accumulated Amortization of CIAC	860,706						860,706
12	NET CIAC (L10 + L11)	\$ (2,243,362)	\$ -	\$ -	\$ 7,888	\$ -	\$ -	(2,235,474)
13								
14	Customer Meter Deposits	\$ (68,685)				68,685		\$ -
15	Deferred Income Tax	(24,518)					(422,012)	(446,530)
16								
17	Plus:							
18	Unamortized Debt Issuance Costs	\$ 134,528	\$ (134,528)					\$ -
19	Deferred Regulatory Assets	82,561	\$ (8,256)					74,305
20								
21								
22	TOTAL RATE BASE (Sum Lines's 5,8,12-19)	\$ 37,930,920	\$ (504,573)	\$ (8,256)	\$ 16,565	\$ 68,685	\$ (422,012)	\$ 36,946,801

References:

- Column (A): Company Schedule B-1
- Column (B): RUCO Surrebuttal Schedule 2, Page 2
- Column (C): Per Company Rebuttal Schedule B-2, Page 2, Adjustment 7
- Column (D): RUCO Surrebuttal Schedule 2, Page 3
- Column (E): Per Company Rebuttal Schedule B-2, Page 2, Adjustment 4
- Column (F): Per Company Rebuttal Schedule B-2, Page 2, Adjustment 6
- Column (G): RUCO Surrebuttal Schedule 2, Page 4
- Column (H): Sums of Column (A) through Column (G)

**EXPLANATION OF RATE BASE ADJUSTMENT NO. 1
TO UTILITY PLANT IN SERVICE**

LINE NO.	DESCRIPTION	AMOUNT	REFERENCE
1	RUCO Proposed Utility Plant In Service At End of Test Year	\$73,088,968	RUCO Surrebuttal Schedule 3, Page 1
2			
3	Company Proposed Utility Plant In Service At End of Test Year	73,731,714	Company Schedule B-1
4			
5	RUCO Proposed Adjustment To Utility Plant in Service	\$ (642,746)	
6			
7			
8	Accumulated Depreciation At End of Prior Test Year	\$ 2,016,268	Staff Amount Per Decision 65436
9	2001 Depreciation Expense	301,164	
10	2002 Depreciation Expense	428,319	
11	2003 Depreciation Expense	680,298	
12	2004 Depreciation Expense	837,311	
13	2005 Depreciation Expense	1,044,743	
14	2006 Depreciation Expense	1,162,853	
15	2007 Depreciation Expense	1,239,248	
16	2008 Depreciation Expense (9 months)	1,335,598	
17	Subtotal	\$ 9,045,801	Sum of Lines 16 through 19
18			
19	Less 2003 Retirements	\$ (84,979)	
20	Less 2006 Retirements	(1,350)	
21			
22	RUCO Proposed Accumulated Depreciation At End of Test Year	\$ 8,959,472	Sum of Lines 17, 19, and 20
23			
24	Company Proposed Accumulated Depreciation At End of Test Year	\$ 9,097,645	Company Schedule B-1
25			
26	RUCO Proposed Adjustment To Accumulated Depreciation	\$ (138,173)	Line 22 - Line 24

**EXPLANATION OF RATE BASE ADJUSTMENT NO. 3
TO DEFERRED REGULATORY ASSETS**

LINE NO.	DESCRIPTION	AMOUNT	REFERENCE
1	Deferred Regulatory Assets Per Company (TCE Plume)	\$ 82,561	Company Schedule B-1
2			
3	Amortization Period In Years	10	Company Schedule C-2, Page 13
4			
5	Annual Amortization Expense Per Company	<u>\$ 8,256</u>	Line 1 / Line 3
6			
7			
8	Portion of Cost Allocated to Rate Base Per RUCO	\$ 74,305	Line 1 - Line 5
9			
10	Cost Allocated to Rate Base Per Company	82,561	Company Schedule B-1
11			
12	RUCO Proposed Adjustment To Deferred Regulatory Assets	<u><u>\$ (8,256)</u></u>	Line 8 - Line 10
13			
14			
15	Portion of Cost Allocated to Expense Per RUCO	\$ 8,256	Line 1 - Line 8
16			
17	Cost Allocated to Expense Per Company	8,256	Company Schedule C-2, Page 13
18			
19	RUCO Proposed Adjustment To Miscellaneous Expense	<u><u>\$ -</u></u>	Line 15 - Line 17

Calculation of Estimated Deferred Income Taxes

Line No.	Asset Description	Date Placed In Service	Basis for Depreciation	RUCO		Yrs. of Accum. Depreciation as of Dec. 31, 2006 (Includes Half-Year Convention)	Accumulated Depreciation As of December 31, 2006		Excess of Accelerated Depreciation over S/L Depreciation
				Proposed S/L Depreciation Rate (%)	Annual S/L Depreciation Expense		S/L as per RUCO Proposed Rate	Accelerated as per LPSCO 2006 Depreciation Schedule	
1	TRANSMISSION & DIST	6/1/1988	\$ 6,404	2.00%	\$ 128	18.5	\$ 2,369	\$ 5,929	\$ 3,560
2	METERS	6/1/1990	714	8.33%	59	16.5	981	598	(383)
3	METERS	6/1/1991	665	8.33%	55	15.5	859	528	(331)
4	LINE REPLACEMENT	6/1/1992	46,046	2.00%	921	14.5	13,353	34,406	21,053
5	NEW WELL	6/1/1992	266,687	3.33%	8,881	14.5	128,770	199,265	70,495
6	LINE REPLACEMENT	6/1/1993	2,596	2.00%	52	13.5	701	1,824	1,123
7	OFFICE FURNITURE	6/1/1989	26,188	6.67%	1,747	17.5	30,568	26,188	(4,380)
8	OFFICE FURNITURE	6/1/1990	1,213	6.67%	81	16.5	1,335	1,213	(122)
9	OFFICE EQUIPMENT	6/1/1990	700	6.67%	47	16.5	770	700	(70)
10	OFFICE EQUIPMENT	6/1/1991	2,805	6.67%	187	15.5	2,900	2,805	(95)
11	FIRE HYDRANTS	6/1/1991	5,477	2.00%	110	15.5	1,698	5,424	3,726
12	OFFICE EQUIPMENT	6/1/1992	4,513	6.67%	301	14.5	4,365	4,513	148
13	FIRE HYDRANTS	6/1/1993	106	2.00%	2	13.5	29	95	66
14	SOFTWARE	1/1/1995	703	20.00%	141	11.5	1,617	693	(924)
15	FIRE HYDRANTS	2/1/1995	1,500	2.00%	30	11.5	345	923	578
16	TOOLS - WATER	3/1/1995	647	5.00%	32	11.5	372	647	275
17	METERS & METER BOXES	6/1/1995	94,549	8.33%	7,876	11.5	90,573	57,990	(32,583)
18	8" SEWER HNSYCKLE	2/1/1995	2,413	2.00%	48	11.5	555	1,485	930
19	PUMP STN EQU UPGRADE	6/1/1995	51,302	12.50%	6,413	11.5	73,747	31,466	(42,281)
20	WATER LINE VALVE	12/1/1995	1,613	2.00%	32	11.5	371	989	618
21	WATER LINE REPAIRS	6/1/1995	54,210	2.00%	1,084	11.5	12,468	33,248	20,780
22	WATER METERS	1/31/1996	12,109	8.33%	1,009	10.5	10,591	6,915	(3,676)
23	LINE REPLACEMENT	2/14/1996	70,165	2.00%	1,403	10.5	14,735	40,074	25,339
24	WATER METERS	2/29/1996	1,769	8.33%	147	10.5	1,547	1,010	(537)
25	WELLS	3/18/1996	14,529	3.33%	484	10.5	5,080	8,261	3,181
26	METERS	3/30/1996	8,434	8.33%	703	10.5	7,377	4,795	(2,582)
27	HYDRANTS	4/11/1996	19,156	2.00%	383	10.5	4,023	10,893	6,870
28	METERS	4/30/1996	4,643	8.33%	387	10.5	4,061	2,640	(1,421)
29	METERS	5/15/1996	8,292	8.33%	691	10.5	7,253	4,715	(2,538)
30	METERS	6/24/1996	4,217	8.33%	351	10.5	3,688	2,398	(1,290)
31	SERVICE LINES	6/30/1996	4,411	3.33%	147	10.5	1,542	2,509	967
32	COMPUTER	7/12/1996	192	20.00%	38	10.5	403	192	(211)
33	COMPUTER	7/12/1996	903	20.00%	181	10.5	1,896	903	(993)
34	METERS	7/31/1996	6,254	8.33%	521	10.5	5,470	3,557	(1,913)
35	METERS	8/15/1996	18,373	8.33%	1,530	10.5	16,070	10,448	(5,622)
36	WATER LINES	8/15/1996	241,824	2.00%	4,836	10.5	50,783	137,506	86,723
37									
38	METERS	9/1/1996	13,445	8.33%	1,120	10.5	11,760	7,646	(4,114)
39	SOFTWARE	9/11/1996	1,515	20.00%	303	10.5	3,182	1,515	(1,667)
40	SOFTWARE	9/11/1996	379	20.00%	76	10.5	796	379	(417)
41	METERS	10/1/1996	7,209	8.33%	601	10.5	6,305	3,281	(3,024)
42	METERS	11/1/1996	9,974	8.33%	831	10.5	8,724	4,618	(4,106)
43	SERVICE LINES	11/5/1996	38,759	3.33%	1,291	10.5	13,552	17,945	4,393
44	SEWER PMP CTRL PANEL	11/30/1996	384	12.50%	48	10.5	504	177	(327)
45	TOOLS	12/16/1996	583	5.00%	29	10.5	306	583	277
46	FURNITURE	12/16/1996	219	6.67%	15	10.5	153	219	66
47	FURNITURE	12/16/1996	219	6.67%	15	10.5	153	219	66
48	SERVICES	12/31/1996	5,355	3.33%	178	10.5	1,872	2,479	607
49	METERS	12/31/1996	4,217	8.33%	351	10.5	3,688	1,954	(1,734)
50	L.S. STARTUP	12/31/1996	776	8.33%	65	10.5	679	359	(320)
51	UPGRADE TO STRUCTURE	9/18/1997	216	3.33%	7	9.5	68	53	(15)
52	WELL UPGRADE	8/8/1997	2,204	3.33%	73	9.5	697	861	164
53	CONTROL SYSTEM	8/25/1997	203	3.33%	7	9.5	64	94	30
54	PUMPING UPGRADE	4/22/1997	1,598	12.50%	200	9.5	1,898	736	(1,162)
55	UPGRADE PUMPING EQUIP	10/8/1997	93,433	12.50%	11,679	9.5	110,952	46,359	(64,593)
56	UPGRADE PUMP CONTROL	8/25/1997	29,342	12.50%	3,668	9.5	34,844	14,560	(20,284)
57	WATER TREATMENT UPGR	10/9/1997	964	3.33%	32	9.5	305	480	175
58	UPGRADE TO PUMP CTRL	10/2/1997	19,191	12.50%	2,399	9.5	22,789	9,524	(13,265)
59	UPGRADE TO PUMPS	12/9/1997	367	12.50%	46	9.5	436	183	(253)

Calculation of Estimated Deferred Income Taxes

Line No.	Asset Description	Date Placed In Service	Basis for Depreciation	RUCO Proposed S/L Depreciation Rate (%)	Annual S/L Depreciation Expense	Yrs. of Accum. Depreciation as of Dec. 31, 2006 (Includes Half-Year Convention)	Accumulated Depreciation As of December 31, 2006		Excess of Accelerated Depreciation over S/L Depreciation
							S/L as per RUCO Proposed Rate	Accelerated as per LPSCO 2006 Depreciation Schedule	
60	WATER LINES	4/26/1997	1,801	2.00%	36	9.5	342	690	348
61	VALVES	5/12/1997	1,437	2.00%	29	9.5	273	550	277
62	UPGR LG BOOSTER PUMP	9/26/1997	3,668	12.50%	459	9.5	4,356	1,690	(2,666)
63	SERVICE LINES	4/8/1997	10,090	3.33%	336	9.5	3,192	3,869	677
64	SERVICE LINES	6/19/1997	4,698	3.33%	156	9.5	1,486	1,801	315
65	SERVICE LINE REPLACE	10/20/1997	11,206	3.33%	373	9.5	3,545	4,295	750
66	SERVICE LINES	12/9/1997	2,010	3.33%	67	9.5	636	769	133
67	METERS & METER BOXES	1/16/1997	5,030	8.33%	419	9.5	3,980	1,928	(2,052)
68	METERS 1997	6/30/1997	7,205	8.33%	600	9.5	5,702	2,761	(2,941)
69	METERS WATER 1997	12/31/1997	55,272	8.33%	4,604	9.5	43,739	21,188	(22,551)
70	HYDRANTS	12/9/1997	2,029	2.00%	41	9.5	386	778	392
71	TOOLS	6/1/1997	221	5.00%	11	9.5	105	215	110
72	TOOLS	12/31/1997	132	5.00%	7	9.5	63	129	66
73	TOOLS	12/31/1997	33	5.00%	2	9.5	16	33	17
74									
75	OFFICE FURNITURE	2/12/1997	146	6.67%	10	9.5	93	146	53
76	COPIER PARTS	5/8/1997	245	6.67%	16	9.5	155	236	81
77	MISC EQUIPMENT	2/12/1996	36	10.00%	4	10.5	38	30	(8)
78	COMPUTER	12/30/1997	2,257	20.00%	451	9.5	4,288	2,198	(2,090)
79	COMPUTER	12/30/1997	564	20.00%	113	9.5	1,072	549	(523)
80	CELL PHONE	5/30/1997	298	10.00%	30	9.5	283	287	4
81	SEWER LINES	8/15/1996	2,489,678	2.00%	49,794	10.5	522,832	1,369,940	847,108
82	SEWER COLLECT SYSTEM	12/15/1997	36,911	2.00%	738	9.5	7,013	14,424	7,411
83	METERS 1998	1/21/1998	10,585	8.33%	882	8.5	7,495	3,527	(3,968)
84	METERS 1998	3/19/1998	9,735	8.33%	811	8.5	6,893	3,244	(3,649)
85	METERS 1998	3/19/1998	1,890	8.33%	157	8.5	1,338	631	(707)
86	METERS 1998	5/27/1998	4,390	8.33%	366	8.5	3,108	1,464	(1,644)
87	METERS 1998	6/11/1998	8,968	8.33%	747	8.5	6,350	2,990	(3,360)
88	METERS 1998	7/11/1998	27,839	8.33%	2,319	8.5	19,711	9,281	(10,430)
89	METERS 1998	8/18/1998	4,530	8.33%	377	8.5	3,207	1,509	(1,698)
90	METERS 1998	9/10/1998	5,435	8.33%	453	8.5	3,848	1,810	(2,038)
91	GENERATOR	1/31/1998	68,655	5.00%	3,433	8.5	29,178	22,885	(6,293)
92	COMPUTER - MAC	5/19/1998	519	20.00%	104	8.5	882	512	(370)
93	COMPUTER - MAC	5/19/1998	2,078	20.00%	416	8.5	3,533	2,049	(1,484)
94	1998 WATER EQUIPMENT	6/1/1998	179,329	3.33%	5,972	8.5	50,759	59,776	9,017
95	SOFTWARE	4/16/1998	325	20.00%	65	8.5	553	325	(228)
96	HYDRANTS	6/1/1998	10,653	2.00%	213	8.5	1,811	3,550	1,739
97	COMPUTER	2/28/1998	1,175	20.00%	235	8.5	1,998	1,077	(921)
98	SOFTWARE	4/16/1998	1,299	20.00%	260	8.5	2,208	1,299	(909)
99	1998 WATER EQUIPMENT	6/1/1998	29,351	3.33%	977	8.5	8,308	9,783	1,475
100	ACEDALINE TORCH	3/31/1998	403	6.67%	27	8.5	228	403	175
101	1998 WATER EQUIPMENT	6/1/1998	180,953	3.33%	6,026	8.5	51,219	60,317	9,098
102	WELL 20B	10/30/1999	179,869	3.33%	5,990	7.5	44,922	26,380	(18,542)
103	1999 WATER EQUIPMENT	6/1/1999	60,570	3.33%	2,017	7.5	15,127	17,768	2,641
104	WATER LINES	12/30/1999	252,528	2.00%	5,051	7.5	37,879	37,039	(840)
105	1999 WATER EQUIPMENT	6/1/1999	411,841	3.33%	13,714	7.5	102,857	120,808	17,951
106	WATER UTILITY - 1986	6/1/1986	794,158		-	20.5		759,744	759,744
107	SOFTWARE	6/1/1999	25,625	20.00%	5,125	7.5	38,438	25,625	(12,813)
108	1999 OFFICE EQUIPMENT	6/1/1999	12,196	6.67%	813	7.5	6,101	12,003	5,902
109	1999 COMPUTER	6/1/1999	11,436	20.00%	2,287	7.5	17,154	11,217	(5,937)
110	TRUCK EQUIPMENT	1/28/2000	901	20.00%	180	6.5	1,171	901	(270)
111									
112	POWER GEN PART	6/17/1999	496	5.00%	25	7.5	186	146	(40)
113	COLLECTION LINES	12/7/1999	361,075	2.00%	7,222	7.5	54,161	52,959	(1,202)
114	1999 WATER EQUIPMENT	6/1/1999	14,017	3.33%	467	7.5	3,501	4,113	612
115	RECLAIMED WATER SYST	12/7/1999	303,251	2.00%	6,065	7.5	45,488	44,476	(1,012)
116	TRANSMISSION LINE	12/1/2000	58,813	2.00%	1,176	6.5	7,646	14,900	7,254
117	TRANSMISSION LINE	11/1/2000	59,364	2.00%	1,187	6.5	7,717	18,799	11,082
118	TRANSMISSION LINE	12/1/2000	156,714	2.00%	3,134	6.5	20,373	19,850	(523)

Calculation of Estimated Deferred Income Taxes

Line No.	Asset Description	Date Placed In Service	Basis for Depreciation	RUCO		Yrs. of Accum. Depreciation as of Dec. 31, 2006 (Includes Half-Year Convention)	Accumulated Depreciation As of December 31, 2006		Excess of Accelerated Depreciation over S/L Depreciation
				Proposed S/L Depreciation Rate (%)	Annual S/L Depreciation Expense		S/L as per RUCO Proposed Rate	Accelerated as per LPSCO 2006 Depreciation Schedule	
119	2000 WATER EQUIPMENT	6/1/2000	426,534	3.33%	14,204	6.5	92,323	108,054	15,731
120	OFFICE FURNITURE	12/1/2000	396	6.67%	26	6.5	172	369	197
121	COMPUTER	12/1/2000	3,901	20.00%	780	6.5	5,071	3,826	(1,245)
122	2000 OFFICE FURNITURE	6/1/2000	5,540	6.67%	370	6.5	2,402	5,179	2,777
123	2000 COMPUTER	6/1/2000	19,235	20.00%	3,847	6.5	25,006	18,866	(6,140)
124	DOOR SCREEN	5/1/2000	1,186	3.33%	39	6.5	257	575	318
125	2000 SOFTWARE	6/1/2000	2,462	20.00%	492	6.5	3,201	2,336	(865)
126	2000 WATER EQUIPMENT	6/1/2000	595,048	3.33%	19,815	6.5	128,798	150,745	21,947
127	RECLAIMED WATER LINE	6/1/2000	67,722	2.00%	1,354	6.5	8,804	8,577	(227)
128	SERVICE LINES	8/1/2000	1,014,366	2.00%	20,287	6.5	131,868		(131,868)
129	2001 SOFTWARE	5/1/2001	250	20.00%	50	5.5	275	229	(46)
130	2001 COMPUTER	5/1/2001	4,033	20.00%	807	5.5	4,436	3,904	(532)
131	2001 OFFICE EQUIPMENT	5/1/2001	500	6.67%	33	5.5	183	419	236
132	2001 TOOL & SHOP	5/1/2001	2,586	5.00%	129	5.5	711	1,401	690
133	2001 DISTRIBUTION LINE	5/1/2001	2,327,233	2.20%	51,199	5.5	281,595	246,540	(35,055)
134	2001 WATER EQUIPMENT	5/1/2001	1,877,576	3.33%	62,523	5.5	343,878	393,589	49,711
135	2001 WATER EQUIPMENT	10/1/2001	138,025	3.33%	4,596	5.5	25,279	27,784	2,505
136	SEWER LINES	10/31/2001	61,119	2.00%	1,222	5.5	6,723	6,111	(612)
137	SOFTWARE	12/10/2001	2,100	20.00%	420	5.5	2,310	2,041	(269)
138	OFFICE EQUIPMENT	10/15/2001	1,751	6.67%	117	5.5	642	1,466	824
139	SOFTWARE	12/10/2001	525	20.00%	105	5.5	578	511	(67)
140	FILE DRAWER	10/15/2001	369	6.67%	25	5.5	135	358	223
141	OFFICE EQUIPMENT	10/23/2001	69	6.67%	5	5.5	25	58	33
142	TRANSPORTATION EQUIP	9/18/2001	600	20.00%	120	5.5	660	581	(79)
143	2002 SOFTWARE	6/1/2002	5,352	20.00%	1,070	4.5	4,817	4,560	(257)
144	2002 VEHICLE	11/8/2002	6,695	20.00%	1,339	4.5	6,026	5,025	(1,001)
145	2002 OFFICE EQUIPMENT	6/1/2002	53,503	6.67%	3,569	4.5	16,059	39,381	23,322
146	METERS	6/1/1992	42,470	8.33%	3,538	14.5	51,297	27,037	(24,260)
147	2002 WATER EQUIPMENT	6/1/2002	11,776,139	3.33%	392,145	4.5	1,764,654	2,046,210	281,556
148									
149	WATER EQUIPMENT	2/1/2003	67,808	3.33%	2,258	3.5	7,903	10,396	2,493
150	TOOLS & EQUIPMENT	9/1/2003	5,793	5.00%	290	3.5	1,014	3,846	2,832
151	SEWER PLANT & EQUIP	9/1/2003	529	3.33%	18	3.5	62	70	8
152	LABORATORY EQUIPMENT	9/1/2003	1,140	10.00%	114	3.5	399	153	(246)
153	COMMUNICATION EQUIP	3/31/3003	1,583	10.00%	158	3.5	554	1,257	703
154	COMMUNICATION EQUIP	9/1/2003	7,189	10.00%	719	3.5	2,516	5,706	3,190
155	OFFICE FURNITURE	3/31/3003	517	6.67%	34	3.5	121	344	223
156	OFFICE FURNITURE	9/1/2003	15,296	6.67%	1,020	3.5	3,571	10,152	6,581
157	POST '96 AIAC REFUNDS	3/31/3003	2,997	3.33%	100	3.5	349	450	101
158	COMMUNICATION EQUIP	1/1/2004	4,513	10.00%	451	2.5	1,128	543	(585)
159	DISTRIBUTION RESERVOIR	2/1/2004	58,886	2.20%	1,295	2.5	3,239	6,869	3,630
160	HYDRANTS	2/1/2004	194	2.00%	4	2.5	10	23	13
161	FLOW MEASURING DEVICE	3/1/2004	5,326	10.00%	533	2.5	1,332	604	(728)
162	COLLECTION SEWERS FO	11/1/2004	20,252	2.00%	405	2.5	1,013	1,755	742
163	LABORATORY EQUIPMENT	9/1/2004	2,046	10.00%	205	2.5	512	191	(321)
164	METERS & METER INS	7/1/2004	152,100	8.33%	12,670	2.5	31,675	15,210	(16,465)
165	OFFICE FURNITURE & EQUIP	4/1/2004	65,136	6.67%	4,345	2.5	10,861	36,652	25,791
166	PUMPING EQUIPMENT	3/1/2004	51,387	12.50%	6,423	2.5	16,058	5,823	(10,235)
167	SERVICE LINES	7/1/2004	88,747	3.33%	2,955	2.5	7,388	8,875	1,487
168	LAND & LAND RIGHTS	4/1/2004	41,026	0.00%	-	2.5	-	-	-
169	STRUCTURES & IMPRO	10/1/2004	297,972	3.33%	9,922	2.5	24,806	26,818	2,012
170	POWER GENERATION EQUIP	8/1/2004	60,383	5.00%	3,019	2.5	7,548	5,836	(1,712)
171	TOOLS, SHOP & GARAGE	7/1/2004	323	5.00%	16	2.5	40	32	(8)
172	TRANSMISSION & DIST MAINS	5/1/2004	1,186,484	2.00%	23,730	2.5	59,324	126,558	67,234
173	WATER TREATMENT EQUIP	6/1/2004	26,811	3.33%	893	2.5	2,232	2,770	538
174	WELLS & SPRINGS	6/1/2004	2,080	3.33%	69	2.5	173	215	42
175	TRANSPORTATION EQUIP	9/1/2004	14,112	20.00%	2,822	2.5	7,056	1,316	(5,740)
176	OTHER TANGIBLE PLANT	3/1/2004	52,734	10.00%	5,273	2.5	13,184	5,976	(7,208)
177	POST '96 AIAC REFUNDS	7/1/2004	143,251	3.33%	4,770	2.5	11,926	14,325	2,399

Calculation of Estimated Deferred Income Taxes

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				Proposed S/L Depreciation Rate (%)	Annual S/L Depreciation Expense		S/L as per RUCO Proposed Rate	Accelerated as per LPSCO 2006 Depreciation Schedule	
178	WATER EQUIPMENT - JAN	1/1/2005	196,930	3.33%	6,558	1.5	9,837	15,754	5,917
179	WATER EQUIPMENT - FEB	2/1/2005	65,175	3.33%	2,170	1.5	3,255	4,997	1,742
180	WATER EQUIPMENT - MARCH	3/1/2005	55,130	3.33%	1,836	1.5	2,754	4,043	1,289
181	OFFICE FURNITURE	3/1/2005	11,690	6.67%	780	1.5	1,170	4,534	3,364
182	WATER EQUIPMENT - APRIL	4/1/2005	41,622	3.33%	1,386	1.5	2,079	2,914	835
183	OFFICE FURNITURE	4/1/2005	105	6.67%	7	1.5	11	41	30
184	COMPUTERS	4/1/2005	2,460	20.00%	492	1.5	738	1,279	541
185									
186	WATER EQUIP - MAY	5/1/2005	99,464	3.33%	3,312	1.5	4,968	6,631	1,663
187	WATER EQUIP - JUNE	6/1/2005	285,963	3.33%	9,523	1.5	14,284	18,111	3,827
188	WATER EQUIP - JULY	7/1/2005	85,126	3.33%	2,835	1.5	4,252	5,108	856
189	WATER EQUIP - AUGUST	8/1/2005	172,145	3.33%	5,732	1.5	8,599	9,755	1,156
190	WATER EQUIP - SEPT	9/1/2005	260,636	3.33%	8,679	1.5	13,019	13,900	881
191	WATER EQUIP - OCT	10/1/2005	65,749	3.33%	2,189	0.5	1,095	657	(438)
192	WATER EQUIP - NOV	11/1/2005	84,208	3.33%	2,804	1.5	4,206	3,929	(277)
193	WATER EQUIP - DEC	12/1/2005	546,547	3.33%	18,200	1.5	27,300	23,684	(3,616)
194	METERS &	1/15/2006	77,741	8.33%	6,476	0.5	3,238	1,555	(1,683)
195	TRANSMISSION	1/15/2006	747	2.00%	15	0.5	7	30	23
196	FORCE	1/15/2006	40,291	2.00%	806	0.5	403	1,612	1,209
197	PUMPING	1/15/2006	500	12.50%	63	0.5	31	20	(11)
198	STRUCTURES & IMPRO	1/15/2006	1,350	3.33%	45	0.5	22	54	32
199	PUMPING	2/15/2006	7,509	12.50%	939	0.5	469	275	(194)
200	METERS &	2/15/2006	69,281	8.33%	5,771	0.5	2,886	2,540	(346)
201	TREATMENT	2/15/2006	2,429	3.33%	81	0.5	40	89	49
202	TRANSMISSION	2/15/2006	150	2.00%	3	0.5	2	6	5
203	METERS &	3/15/2006	36,114	8.33%	3,008	0	-	-	-
204	FORCE	3/15/2006	450	2.00%	9	0.5	5	15	11
205	TRANSMISSION	3/15/2006	125	2.00%	3	0	-	-	-
206	SERVICES	3/15/2006	1,869	3.33%	62	0.5	31	62	31
207	TRANSMISSION	4/15/2006	7,188	2.00%	144	0.5	72	216	144
208	METERS &	4/15/2006	3,357	8.33%	280	0.5	140	101	(39)
209	OFFICE FURNITURE	4/12/2006	472	6.67%	31	0.5	16	84	68
210	OTHER TANGIBLE PLANT	4/30/2006	18,106	6.67%	1,208	0.5	604	483	(121)
211	SERVICES	4/30/2006	3,320	3.33%	111	0.5	55	89	34
212	TREATMENT	4/30/2006	11,236	3.33%	374	0.5	187	300	113
213	FORCE	4/30/2006	300	2.00%	6	0.5	3	8	5
214	TRANSMISSION	5/29/2006	100	2.00%	2	0.5	1	2	1
215	METERS &	5/17/2006	21,910	8.33%	1,825	0.5	913	511	(402)
216	OFFICE FURNITURE	5/4/2006	2,191	6.67%	146	0.5	73	391	318
217	LABORATORY EQUIPMENT	5/31/2006	3,221	10.00%	322	0.5	161	77	(84)
218	OTHER TANGIBLE PLANT	5/31/2006	2,638	6.67%	176	0.5	88	62	(26)
219	SERVICES	5/16/2006	2,781	3.33%	93	0.5	46	65	19
220	TREATMENT	5/31/2006	36,458	3.33%	1,214	0.5	607	851	244
221	POWER GENERATOR	5/31/2006	16,426	5.00%	821	0.5	411	383	(28)
222									
223	METERS &	6/13/2006	19,511	8.33%	1,625	0.5	813	455	(358)
224	SERVICES	6/19/2006	12,400	3.33%	413	0.5	206	248	42
225	LABORATORY EQUIPMENT	6/30/2006	1,957	10.00%	196	0.5	98	39	(59)
226	OTHER TANGIBLE PLANT	6/30/2006	801	6.67%	53	0	-	-	-
227	PUMPING	6/29/2006	3,100	12.50%	388	0.5	194	62	(132)
228	WELLS & SPRINGS	6/30/2006	48,928	3.33%	1,629	0.5	815	979	164
229	STRUCTURES & IMPRO	6/29/2006	150	3.33%	5	0.5	2	3	1
230	METERS &	7/31/2006	19,031	8.33%	1,585	0.5	793	317	(476)
231	SERVICES	7/31/2006	33,252	3.33%	1,107	0.5	554	554	0
232	TREATMENT	7/10/2006	5,403	3.33%	180	0.5	90	108	18
233	FORCE	7/31/2006	579,402	2.00%	11,588	0.5	5,794	9,657	3,863
234	STRUCTURES & IMPRO	7/31/2006	730,847	3.33%	24,337	0.5	12,169	12,181	12
235	POWER GENERATOR	7/31/2006	115,679	5.00%	5,784	0.5	2,892	1,928	(964)
236	HYDRANTS	7/31/2006	41,743	2.00%	835	0.5	417	696	279
237	TRANSMISSION	8/31/2006	108,904	2.00%	2,178	0.5	1,089	1,452	363

Calculation of Estimated Deferred Income Taxes

Line No.	Asset Description	Date Placed In Service	Basis for Depreciation	RUCO		Yrs. of Accum. Depreciation as of Dec. 31, 2006 (Includes Half-Year Convention)	Accumulated Depreciation As of December 31, 2006		Excess of Accelerated Depreciation over S/L Depreciation
				Proposed S/L Depreciation Rate (%)	Annual S/L Depreciation Expense		S/L as per RUCO Proposed Rate	Accelerated as per LPSCO 2006 Depreciation Schedule	
238	METERS &	8/7/2006	37,926	8.33%	3,159	0.5	1,580	632	(948)
239	OFFICE FURNITURE	8/30/2006	5,263	6.67%	351	0.5	176	564	388
240	SERVICES	8/31/2006	7,400	3.33%	246	0.5	123	99	(24)
241	HYDRANTS	8/31/2006	1,100	2.00%	22	0.5	11	15	4
242	STRUCTURES & IMPRO	8/31/2006	65,100	3.33%	2,168	0.5	1,084	868	(216)
243	METERS &	9/30/2006	19,717	8.33%	1,642	0.5	821	197	(624)
244	OFFICE FURNITURE	9/27/2006	1,577	6.67%	105	0.5	53	169	116
245	SERVICES	9/22/2006	8,850	3.33%	295	0.5	147	89	(58)
246	STRUCTURES & IMPRO	9/30/2006	39,372	3.33%	1,311	0.5	656	394	(262)
247	METERS &	10/31/2006	20,737	8.33%	1,727	0.5	864	138	(726)
248	OFFICE FURNITURE	10/30/2006	2,465	6.67%	164	0.5	82	88	6
249	SERVICES	10/31/2006	8,755	3.33%	292	0.5	146	58	(88)
250	TREATMENT	10/30/2006	34,268	3.33%	1,141	0.5	571	228	(343)
251	STRUCTURES & IMPRO	10/30/2006	23,256	3.33%	774	0.5	387	155	(232)
252	PUMPING	10/30/2006	60	12.50%	8	0.5	4		(4)
253	TRANSPORT	10/31/2006	2,429	20.00%	486	0.5	243	16	(227)
254	METERS &	11/30/2006	209	8.33%	17	0.5	9	1	(8)
255	OFFICE FURNITURE	11/30/2006	85,082	6.67%	5,675	0.5	2,837	3,037	200
256	TREATMENT	11/30/2006	14,216	3.33%	473	0.5	237	47	(190)
257	FORCE	11/30/2006	135,206	2.00%	2,704	0.5	1,352	451	(901)
258	PUMPING	11/30/2006	2,400	12.50%	300	0.5	150	8	(142)
259									
260	STRUCTURES & IMPRO	11/30/2006	28,036	3.33%	934	0.5	467	93	(374)
261	HYDRANTS	11/30/2006	30	2.00%	1	0.5	0		(0)
262	TRANSMISSION	12/31/2006	238,303	2.00%	4,766	0.5	2,383		(2,383)
263	METERS &	12/31/2006	68,617	8.33%	5,716	0.5	2,858		(2,858)
264	OFFICE FURNITURE	12/31/2006	18,468	6.67%	1,232	0.5	616	659	43
265	SERVICES	12/31/2006	68,846	3.33%	2,293	0.5	1,146		(1,146)
266	FORCE	12/31/2006	900	2.00%	18	0.5	9		(9)
267	DISTRIBUTION MAINS	12/31/2006	16,657	2.00%	333	0.5	167		(167)
268	HYDRANTS	12/31/2006	7,800	2.00%	156	0.5	78		(78)
269	STRUCTURES & IMPRO	12/31/2006	650	3.33%	22	0.5	11		(11)
270	WELLS & SPRINGS	12/31/2006	4,000	3.33%	133	0.5	67		(67)
271	FLOW MEASURING EQUIP	12/31/2006	4,961	10.00%	496	0.5	248		(248)
272	TRANSPORT	12/31/2006	6,193	20.00%	1,239	0.5	619		(619)
273									
274	TOTALS		\$ 32,957,874				\$ 5,214,316	\$ 7,104,035	\$ 1,889,719

Information Derived from LPSCO 2006 Depreciation Schedule (provided in response to JMM 1.55)

	Calculated as per Information Shown Above	Adjusted as per Information Shown Above
278		
279		
280		
281		
282		
283	Total Accelerated Depreciation \$ 7,104,035	\$ 7,104,035
284	Add: Depreciation Expense Not Taken -	131,868
285	Less: S/L Depreciation (5,214,316)	(5,214,316)
286		
287	Excess Accelerated Depreciation \$ (1,889,719)	\$ (2,021,587)
288		
289	Total Tax Percentage 38.60%	38.60%
290		
291	Estimated Deferred Income Taxes \$ (729,432)	\$ (780,333)
292		
293	Water Division Allocation Factor	57.2230%
294		
295	Water Division Deferred Tax Liability	\$ (446,530)
296		
297	Company Amount Per Schedule B-1	24,518
298		
299	RUCO Adjustment to Deferred Taxes	\$ (422,012)

**UTILITY PLANT IN SERVICE SCHEDULE
TEST YEAR ENDED SEPTEMBER 30, 2008**

LINE NO.	ACCT. NO.	ACCOUNT NAME	(A) COMPANY ADJUSTED TEST YEAR	(B) RUCO SURREBUTTAL ADJUSTMENTS	(C) RUCO SURREBUTTAL PLANT VALUE
1	301	Organization	\$ -	\$ 21,100	\$ 21,100
2	302	Franchises	-	-	-
3	303	Land and Land Rights	1,284,595	(96,170)	1,188,425
4	304	Structures and Improvements	24,698,293	(446,942)	24,251,351
5	307	Wells and Springs	2,382,102	(5,373)	2,376,729
6	310	Power Generation Equipment	202,269	-	202,269
7	311	Electric Pumping Equipment	948,213	(40,985)	907,228
8	320	Water Treatment Equipment	1,337,824	(20,253)	1,317,571
9	320.1	Water Treatment Plants	1,866,965	18,805	1,885,770
10	320.2	Chemical Solution Feeders	-	-	-
11	330	Distribution Reservoirs & Standpipes	430,644	(3,839)	426,805
12	330.1	Storage Tanks	-	-	-
13	330.2	Pressure Tanks	-	-	-
14	331	Transmission and Distribution Mains	28,929,171	(18,048)	28,911,123
15	333	Services	4,249,744	(38,961)	4,210,783
16	334	Meters	4,138,752	(1,739)	4,137,013
17	335	Hydrants	2,055,781	(1,258)	2,054,523
18	336	Backflow Prevention Devices	38,387	-	38,387
19	339	Other Plant and Miscellaneous Equipment	265,281	(5,175)	260,106
20	340	Office Furniture and Equipment	551,757	-	551,757
21	340.1	Computers and Software	-	-	-
22	341	Transportation Equipment	177,165	-	177,165
23	342	Stores Equipment	31,711	-	31,711
24	343	Tools, Shop, and Garage Equipment	23,350	-	23,350
25	344	Laboratory Equipment	-	-	-
26	345	Power Operated Equipment	-	-	-
27	346	Communications Equipment	119,710	(3,908)	115,802
28	347	Miscellaneous Equipment	-	-	-
29	348	Other Tangible Plant	-	-	-
30					
31		TOTAL WATER UTILITY PLANT IN SERVICE	\$ 73,731,714	\$ (642,746)	\$ 73,088,968

TEST YEAR PLANT SCHEDULE
YEAR ENDED SEPTEMBER 30, 2008

LINE NO.	ACCT. NO.	ACCOUNT NAME	COMPANY AS FILED	RUCO ADJ 1	RUCO ADJ 2	RUCO ADJ 3	RUCO ADJ 4	RUCO ADJ 5	RUCO ADJ 6	RUCO ADJ 7	RUCO ADJ 8	TOTAL PG 1 ADJ
1	301	Organization		\$ 21,100								\$ 21,100
2	302	Franchises										
3	303	Land and Land Rights	1,284,595									
4	304	Structures and Improvements	24,698,293		\$ (47,721)	\$ 602	\$ 28,165	\$ 22,752	\$ 99,915		\$ (96,170)	(96,170)
5	307	Wells and Springs	2,382,102				8,385		166	1,925		103,713
6	310	Power Generation Equipment	202,269									10,476
7	311	Electric Pumping Equipment	948,213		(31,158)	199	8,399					(22,560)
8	320	Water Treatment Equipment	1,337,824				3,517	9,690	2,049	6,948		22,204
9	320.1	Water Treatment Plants	1,866,965									
10	320.2	Chemical Solution Feeders										
11	330	Distribution Reservoirs & Standpipes	430,644					3,381	969	111		4,461
12	330.1	Storage Tanks										
13	330.2	Pressure Tanks										
14	331	Transmission and Distribution Mains	28,929,171									
15	333	Services	4,249,744			4,734	6,563	400				11,697
16	334	Meters	4,138,752			280	477	204				961
17	335	Hydrants	2,055,781			511	163			18		692
18	336	Backflow Prevention Devices	38,387									
19	339	Other Plant and Miscellaneous Equipment	265,281									
20	340	Office Furniture and Equipment	551,757									
21	340.1	Computers and Software										
22	341	Transportation Equipment	177,165									
23	342	Stores Equipment	31,711									
24	343	Tools, Shop, and Garage Equipment	23,350									
25	344	Laboratory Equipment										
26	345	Power Operated Equipment										
27	346	Communications Equipment	119,710				1,394	1,883	28	787		4,092
28	347	Miscellaneous Equipment										
29	348	Other Tangible Plant										
30												
31												
32		TOTAL WATER PLANT		\$ 73,731,714	\$ (78,879)	\$ 6,326	\$ 57,063	\$ 38,310	\$ 103,127	\$ 9,789	\$ (96,170)	\$ 60,666

ADJ 1 Replace Organization Costs as approved by last Decision
ADJ 2 Retire Litchfield Greens Booster Pump Station in 2003
ADJ 3 Reverse Company Adjustment for 2004 Affiliate Profit
ADJ 4 Reverse Company Adjustment for 2005 Affiliate Profit
ADJ 5 Reverse Company Adjustment for 2006 Affiliate Profit
ADJ 6 Reverse Company Adjustment for 2007 Affiliate Profit
ADJ 7 Reverse Company Adjustment for 2008 Affiliate Profit
ADJ 8 Remove unsupported affiliate labor and accruals, and rent from 2008 plant additions
Capitalized Affiliate Labor - Algonquin \$ (27,040)
Capitalized Affiliate Labor - New Spring (40,013)
Rent to Maryland 40, LLC (9,000)
Unsupported Accruals (20,117)
Total Adjustment 8 \$ (96,170)

TEST YEAR PLANT SCHEDULE
 YEAR ENDED SEPTEMBER 30, 2008

LINE NO.	ACCT. NO.	ACCOUNT NAME	RUCO ADJ 9	RUCO ADJ 10	RUCO ADJ 11	RUCO ADJ 12	RUCO ADJ 13	RUCO ADJ 14	RUCO ADJ 15	RUCO ADJ 16	RUCO ADJ 17	TOTAL PG 2 ADJ
1	301	Organization										\$ -
2	302	Franchises										-
3	303	Land and Land Rights										-
4	304	Structures and Improvements		\$ (1,125)		\$ (33,156)	\$ (267,183)			\$ (7,072)		(308,536)
5	307	Wells and Springs	(6,200)			(19,238)	(1,800)					(27,238)
6	310	Power Generation Equipment										-
7	311	Electric Pumping Equipment		(375)	(18,050)		(3,700)	(31,569)				(18,425)
8	320	Water Treatment Equipment			(7,188)							(42,457)
9	320.1	Water Treatment Plants										-
10	320.2	Chemical Solution Feeders										-
11	330	Distribution Reservoirs & Standpipes					(8,300)					(8,300)
12	330.1	Storage Tanks										-
13	330.2	Pressure Tanks										-
14	331	Transmission and Distribution Mains										-
15	333	Services		(10,915)	(14,360)	(875)		(8,700)		(4,170)		(39,020)
16	334	Meters		(800)	(1,325)	(575)						(2,700)
17	335	Hydrants			(1,450)			(100)				(1,550)
18	336	Backflow Prevention Devices										-
19	339	Other Plant and Miscellaneous Equipment										-
20	340	Office Furniture and Equipment										-
21	340.1	Computers and Software			(5,175)							(5,175)
22	341	Transportation Equipment										-
23	342	Stores Equipment										-
24	343	Tools, Shop, and Garage Equipment										-
25	344	Laboratory Equipment										-
26	345	Power Operated Equipment										-
27	346	Communications Equipment										-
28	347	Miscellaneous Equipment					(8,000)					(8,000)
29	348	Other Tangible Plant										-
30												-
31												-
32		TOTAL WATER PLANT	\$ (6,200)	\$ (13,215)	\$ (47,548)	\$ (53,844)	\$ (5,500)	\$ (315,152)	\$ (8,700)	\$ (11,242)	\$ -	\$ (461,401)

ADJ 9
 ADJ 10 Remove 2004 unsupported affiliate labor costs by estimated year related asset placed in service.
 ADJ 11 Remove 2005 unsupported affiliate labor costs by estimated year related asset placed in service.
 ADJ 12 Remove 2006 unsupported affiliate labor costs by estimated year related asset placed in service.
 ADJ 13 Remove 2007 unsupported affiliate labor costs by estimated year related asset placed in service.
 ADJ 14 Remove 2008 unsupported affiliate labor costs by estimated year related asset placed in service.
 ADJ 15 Remove 3 repair invoices (\$3,000 times 2, and 1 @ \$2,700) from 2001 plant additions.
 ADJ 16 Remove 2 repair invoices from Yahweh (\$2,085 times 2) and 1 rent invoice from Suncor (\$7,072) from 2002 plant additions.
 ADJ 17 Deleted

TEST YEAR PLANT SCHEDULE
YEAR ENDED SEPTEMBER 30, 2008

LINE NO.	ACCT. NO.	ACCOUNT NAME	RUCO ADJ 18	RUCO ADJ 19	RUCO ADJ 20	RUCO ADJ 21	RUCO ADJ 22	RUCO ADJ 23	RUCO ADJ 24	TOTAL PG 3 ADJ	TOTAL ALL ADJS
1	301	Organization									21,100
2	302	Franchises									-
3	303	Land and Land Rights									(96,170)
4	304	Structures and Improvements	(242,119)							(242,119)	(446,942)
5	307	Wells and Springs					11,389			11,389	(5,373)
6	310	Power Generation Equipment									-
7	311	Electric Pumping Equipment									(40,985)
8	320	Water Treatment Plants							18,805	18,805	(20,253)
9	320.1	Water Treatment Plants									18,805
10	320.2	Chemical Solution Feeders									-
11	330	Distribution Reservoirs & Standpipes									(3,839)
12	330.1	Storage Tanks									-
13	330.2	Pressure Tanks									-
14	331	Transmission and Distribution Mains		(26,648)	(3,227)					(18,048)	(18,048)
15	333	Services	(8,411)							(11,638)	(38,961)
16	334	Meters									(1,739)
17	335	Hydrants					(400)			(400)	(1,258)
18	336	Backflow Prevention Devices									-
19	339	Other Plant and Miscellaneous Equipment						8,600			(5,175)
20	340	Office Furniture and Equipment									-
21	340.1	Computers and Software									-
22	341	Transportation Equipment									-
23	342	Stores Equipment									-
24	343	Tools, Shop, and Garage Equipment									-
25	344	Laboratory Equipment									-
26	345	Power Operated Equipment									-
27	346	Communications Equipment									-
28	347	Miscellaneous Equipment									(3,908)
29	348	Other Tangible Plant									-
30											-
31											-
32		TOTAL WATER PLANT	\$ (250,530)	\$ (26,648)	\$ (3,227)	\$ -	\$ (400)	\$ 19,989	\$ 18,805	\$ (242,011)	\$ (642,746)

ADJ 18 Remove 1 repair invoice from Pyramid West Pipeline (\$1,391), 1 unsupported amount from Pyramid (\$7,020), and a journal entry amount not supported by backup (\$242,119) from 2004 plant additions.

ADJ 19 Remove several repair invoices from Ram Pipelines that total \$26,648 from 2005 plant additions.

ADJ 20 Remove 1 repair invoice from Yahweh (\$2,450), and 1 repair invoice from Ram Pipelines (\$777) from 2006 plant additions.

ADJ 21 Deleted

ADJ 22 Remove repair invoice from MS Hernandez Construction for \$400 from 2003.

ADJ 23 Capitalize amount removed from expenses per RUCO Income Statement adjustment 4a.

ADJ 24 Increase post test year plant per Company Rebuttal Schedule B-2, Page 3.

OPERATING INCOME

LINE NO.	DESCRIPTION	(A) COMPANY AS FILED	(B) RUCO TEST YEAR ADJ'M'TS	REF	(C) RUCO TEST YEAR AS ADJ'TED	(D) RUCO PROPOSED INCREASE	(E) RUCO AS RECOMM'D
1	Revenues						
2	Metered Water Revenue	\$6,347,481	\$ 403,707	1	\$ 6,751,188	\$ 4,676,615	\$ 11,427,803
3	Unmetered Water Revenue	-			-		-
4	Other Water Revenue	127,522			127,522		127,522
5					-		-
6	TOTAL OPERATING REVENUE	\$6,475,003	\$ 403,707		\$ 6,878,710	\$ 4,676,615	\$ 11,555,325
7							
8	Operating Expenses						
9	Salaries & Wages	\$ -			\$ -		\$ -
10	Purchased Water	5,011			5,011		5,011
11	Purchased Power	1,013,811			1,013,811		1,013,811
12	Fuel for Power Production	58,147	(56,381)	2	1,766		1,766
13	Chemicals	503,278	(1,054)	3	502,224		502,224
14	Repairs and Maintenance	44,001			44,001		44,001
15	Office Supplies and Expense	-			-		-
16	Outside Services	12,469			12,469		12,469
17	Outside Services - Other	2,382,976	(324,876)	4a-d	2,058,100		2,058,100
18	Outside Services - Legal	14,317			14,317		14,317
19	Water Testing	28,365	(590)	5	27,775		27,775
20	Rents	10,647			10,647		10,647
21	Transportation Expenses	151,879	(24,761)	6	127,118		127,118
22	Insurance - General Liability	95,469			95,469		95,469
23	Insurance - Health and Life	3,319			3,319		3,319
24	Regulatory Comm, Expense	63,662			63,662		63,662
25	Regulatory Comm, Exp. - Rate Case	70,000	(28,000)	7	42,000		42,000
26	Miscellaneous Expense	81,664	(22,027)	8	59,637		59,637
27	Bad Debt Expense	3,264			3,264		3,264
28	Depreciation & Amortization	2,291,982	(34,434)	9a-b	2,257,548		2,257,548
29	Taxes Other Than Income	-			-		-
30	Property Taxes	373,354	(96,472)	10	276,882	62,321	339,203
31	Income Tax	(449,717)	387,378	11	(62,339)	1,781,066	1,718,727
32					-		-
33							
34	TOTAL OPERATING EXPENSES	\$6,757,898	\$ (201,216)		\$ 6,556,682	\$ 1,843,387	\$ 8,400,069
35							
36	OPERATING INCOME (LOSS)	\$ (282,895)	\$ 604,923		\$ 322,028	\$ 2,833,228	\$ 3,155,257

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 3
TO CHEMICALS**

LINE NO.	DESCRIPTION	REFERENCE	AMOUNT
1	HILL BROTHERS CHEMICAL CO.	Invoice 04293499	\$ (305)
2	HOME DEPOT	JE 47955	(749)
3			
4			
5			
6			
7	RUCO Adjustment To Remove Expenses Outside of Test Year		<u>\$ (1,054)</u>

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 4a
TO OUTSIDE SERVICES - OTHER**

LINE NO.	DESCRIPTION	AMOUNT	REFERENCE
1	Hydro Controls and Pump Systems (Clocks for well sites)	\$ (1,114)	Invoice No. 227 (June 9, 2008)
2	Narasimhan Consulting Services (Distribution System Evaluation)	(8,600)	Invoice No. 0252-1 (Oct. 27, 2007)
3	Southwest Ground-water Consultants (Well Spacing Evaluation)	(1,380)	Invoice No. B.1426-2-1 (Feb. 13, 2008)
4	Southwest Ground-water Consultants (Well Rehabilitation-Dry Ice)	(4,072)	Invoice No. B.1591-2 (Mar. 20, 2008)
5	Southwest Ground-water Consultants (Well Impact Analysis)	(4,823)	Invoice No. B.1688-1 (Sept. 8, 2008)
6			
7	RUCO Adjustment To Remove Expenses To Be Capitalized	<u>\$ (19,989)</u>	
8			
9			
10	Southwest Ground-water Consultants (Recharge Characterization)	(2,613)	Invoice No. B.1426-11 (June 25, 2008)
11	Southwest Ground-water Consultants (Report for Production Well)	(1,225)	Invoice No. B.1661-1V (July 11, 2008)
12	Southwest Ground-water Consultants (Report for Production Well)	(2,800)	Invoice No. B.1661-1 (July 11, 2008)
13	Burke Hansen, LLC (Real estate appraisal)	(3,000)	Invoice No. 8107N (June 5, 2008)
14			
15	RUCO Adjustment to Remove Non-Recurring Expenses	<u>\$ (9,638)</u>	
16			
17	TOTAL RUCO ADJUSTMENT TO OUTSIDE SERVICES - OTHER	<u>\$ (29,626)</u>	

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 4b
TO OUTSIDE SERVICES - OTHER**

LINE NO.	GENERAL LEDGER ACCOUNT	VENDOR	DESCRIPTION	AMOUNT
1	Central Office - Accounting/Administration	Algonquin Power Trust	GENERAL ACCTIN FEE - LPSCO	\$ (2,689)
2	Central Office - Human Resources	Algonquin Power Trust	GEN HR FEE- LPSCO	(12,790)
3	Central Office - Information Technology	Algonquin Power Trust	GEN IT FEE- LPSCO	(1,127)
4	Central Office - Operations	Algonquin Power Trust	GENERAL OPS	(1,146)
5	Central Office Fixed Overhead Costs	Algonquin Power Trust	MGMT FEE- LPSCO	(269,047)
6				
7			RUCO Adjustment To Remove Unnecessary/Inappropriate Expenses	<u>\$ (286,799)</u>

Note: Descriptions above are per company journal entries in the general ledger.

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 4d
 TO OUTSIDE SERVICES - OTHER**

LINE NO.	GENERAL LEDGER ACCOUNT	VENDOR	DESCRIPTION	AMOUNT
1	Admin Allocation - AWS		Algonquin Water Services Recon fees to 4 factor	\$ -
2	Contractual Services-AWS		Algonquin Water Services Recon fees to 4 factor	-
3	Contractual Services-AWS		Algonquin Water Services Recon fees to 4 factor	-
4				
5				
6			RUCO Adjustment To Remove Unnecessary/Inappropriate Expenses	<u><u>\$ -</u></u>

Note: Descriptions above are per company journal entries in the general ledger.

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 9a
TO DEPRECIATION EXPENSE**

LINE NO.	ACCT NO.	PLANT ACCOUNT	RUCO ORIGINAL COST	PROPOSED DEPR RATE	PROPOSED DEPR EXPENSE
1	301	Organization	\$ 21,100	0.00%	\$ -
2	302	Franchises	-	0.00%	-
4	303	Land and Land Rights	1,188,425	0.00%	-
5	304	Structures and Improvements	24,251,351	3.33%	807,570
6	307	Wells and Springs	2,376,729	3.33%	79,145
7	310	Power Generation Equipment	202,269	5.00%	10,113
8	311	Electric Pumping Equipment	907,228	12.50%	113,404
9	320	Water Treatment Equipment	1,317,571	3.33%	43,875
10	320.1	Water Treatment Plants	1,885,770	3.33%	62,796
11	320.2	Chemical Solution Feeders	-	2.22%	-
12	330	Distribution Reservoirs & Standpipes	426,805	2.20%	9,390
13	330.1	Storage Tanks	-	2.20%	-
14	330.2	Pressure Tanks	-	5.00%	-
15	331	Transmission and Distribution Mains	28,911,123	2.00%	578,222
16	333	Services	4,210,783	3.33%	140,219
17	334	Meters	4,137,013	8.33%	344,613
18	335	Hydrants	2,054,523	2.00%	41,090
19	336	Backflow Prevention Devices	38,387	6.67%	2,560
20	339	Other Plant and Miscellaneous Equipment	260,106	6.67%	17,349
21	340	Office Furniture and Equipment	551,757	6.67%	36,802
22	340.1	Computers and Software	-	20.00%	-
23	341	Transportation Equipment	177,165	20.00%	35,433
24	342	Stores Equipment	31,711	4.00%	1,268
25	343	Tools, Shop, and Garage Equipment	23,350	5.00%	1,168
26	344	Laboratory Equipment	-	10.00%	-
27	345	Power Operated Equipment	-	5.00%	-
28	346	Communications Equipment	115,802	10.00%	11,580
29	347	Miscellaneous Equipment	-	10.00%	-
30	348	Other Tangible Plant	-	-	-
31		TOTALS	\$ 73,088,968		\$ 2,336,599
32					
33					
34					
35					
36		Depreciation Expense Per RUCO		\$	2,336,599
37		Less: Amortization of Contributions in Aid of Construction (per Company)			(67,586)
38		Total Proposed Depreciation Expense Per RUCO		\$	2,269,013
39					
40		Total Proposed Depreciation Expense Per Company		\$	2,291,982
41					
42		Net Decrease to Depreciation Expense		\$	(22,969)
43					
44		RUCO Adjustment To Plant Depreciation Expense		\$	(22,969)

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 9b
TO DEPRECIATION EXPENSE**

LINE NO.	DESCRIPTION	REFERENCE	TOTAL
1	Total Amortization of Debt Discount Per RUCO		\$ -
2			
3	Test Year Adjusted Amortization of Debt Discount As Filed		11,465
4			
5	RUCO Adjustment To Amortization of Debt Discount		<u>\$ (11,465)</u>
6			
7	TOTAL RUCO ADJUSTMENT TO DEPRECIATION EXPENSE		<u><u>\$ (11,465)</u></u>

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 10
TO PROPERTY TAX**

LINE NO.	DESCRIPTION	REFERENCE	(A)	(B)
1	Calculation Of The Company's Full Cash Value:			
2				
3	Annual Operating Revenues:			
4	Adjusted Test Year Ended 09/30/2008		\$ 6,878,710	
5	Adjusted Test Year Ended 09/30/2008		6,878,710	
6	Proposed Revenue		<u>11,555,325</u>	
7	Total Three Year Operating Revenues	Sum of Lines 4, 5, & 6	\$ 25,312,745	
8	Average Annual Operating Revenues	Line 7 / 3	<u>\$ 8,437,582</u>	
9				
10	Two Times Three Year Average Operating Revenues	Line 8 X 2		\$ 16,875,164
11				
12	ADD:			
13	10% of construction Work In Progress ("CWIP"):			
14	Test Year CWIP		\$ -	
15	10% of CWIP	Line 14 X 10%		\$ -
16				
17	SUBTRACT:			
18	Transportation at Book Value:			
19	Original Cost of Transportation Equipment		177,165	
20	Accum. Depr. Of Transportation Equipment		<u>(83,064)</u>	
21	Book Value of Transportation Equipment	Line 19 + Line 20		\$ 94,101
22				
23	Company's Full Cash Value ("FCV")	Sum of Lines 10, 15, & 21		<u>16,969,264</u>
24				
25	Calculation Of The Company's Tax Liability:			
26				
27	MULTIPLY:			
28	FCV X Valuation Assessment Ratio X Property Tax Rates:			
29	Assessment Ratio	House Bill 2779	21.0000%	
30	Assessed Value	Line 23 X 29	\$ 3,563,546	
31				
32	Property Tax Rates:			
33	Composite Property Tax Rate (Per Company)		9.5187%	
34				
35	Estimated Tax Rate Liability		<u>9.5187%</u>	
36				
37	Company's Total Tax Liability - Based on Full Cash Value	Line 30 X Line 35		\$ 339,203
38				
39	RUCO Adjusted Test Year Property Tax Expense			<u>276,882</u>
40	Increase in Property Tax Expense	Line 37 - Line 39		\$ 62,321
41				
42	TOTAL RUCO ADJUSTMENT TO PROPERTY TAXES			<u><u>\$ 62,321</u></u>

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 11
TO INCOME TAX EXPENSE**

LINE NO.	DESCRIPTION	(A) REFERENCE	(B) AMOUNT
1	FEDERAL INCOME TAXES:		
2			
3	Operating Income Before Taxes	Sch 4, Page 1, Col C, Lines 31 + 34	\$ 259,690
4	Less:		
5	Arizona State Tax	Line 21	\$ 11,254
6	Interest Expense	Note (A), Line 35	(421,194)
7	Federal Taxable Income	Line 3 + Line 5 + Line 6	\$ (150,250)
8			
9	Federal Tax Rate	Schedule 1, Page 2	34.0000%
10	Federal Income Tax Expense	Line 7 X Line 9	<u>\$ (51,085)</u>
11			
12	STATE INCOME TAXES:		
13			
14	Operating Income Before Taxes	Sch 4, Page 1, Col C, Lines 32 + 37	\$ 259,690
15	LESS:		
16	Interest Expense	Note (A), Line 35	(421,194)
17	State Taxable Income	Line 14 + Line 16	\$ (161,504)
18			
19	State Tax Rate	Tax Rate	6.9680%
20			
21	State Income Expense	Line 17 X Line 19	<u>\$ (11,254)</u>
22			
23	TOTAL INCOME TAX EXPENSE:		
24	Federal Income Tax Expense	Line 10	\$ (51,085)
25	State Income Tax Expense	Line 21	(11,254)
26	Total Income Tax Expense Per RUCO	Line 24 + Line 25	\$ (62,339)
27	Total Income Tax Expense Per Company Company Sch C-1		(449,717)
28	Total RUCO Income Tax Adjustment	Line 26 - Line 27	<u><u>\$ 387,378</u></u>
29			
30			
31	<i>NOTE (A)</i>		
32	Interest Synchronization:		
33	Adjusted Rate Base	\$ 36,946,801	
34	Weighted Avg. Cost of Debt	1.14%	
35	Synchronized Interest Expense (L33 X L34)	<u>\$ 421,194</u>	

Water Division Bill Count Summary

Line No.	Meter Size/Class	Company Present Rates	RUCO Proposed Rates	Increase/ (Decrease) Amount	Increase/ (Decrease) Percent
1	Residential				
2	5/8 inch meter	\$ 7,865	\$ 11,412	\$ 3,547	45.10%
3	3/4 inch meter	2,015,346	2,791,062	775,716	38.49%
4	1 inch meter	1,980,115	3,461,612	1,481,497	74.82%
5	1.5 inch meter	53,017	98,000	44,983	84.85%
6	2 inch meter	173,915	287,993	114,078	65.59%
7	4 inch meter	19,356	35,619	16,263	84.02%
8	Subtotal Residential	\$ 4,249,614	\$ 6,685,698	\$ 2,436,084	57.30%
9					
10	Commercial				
11	5/8 inch meter	\$ 25,665	\$ 46,884	\$ 21,219	82.68%
12	3/4 inch meter	12,070	19,809	7,739	64.12%
13	1 inch meter	28,688	51,470	22,782	79.41%
14	1.5 inch meter	65,438	120,551	55,113	84.22%
15	2 inch meter	413,985	664,465	250,480	60.50%
16	4 inch meter	76,058	138,210	62,152	81.72%
17	8 inch meter	403,707	885,438	481,731	119.33%
18	10 inch meter	17,579	21,221	3,642	20.72%
19	Subtotal Commercial	\$ 1,043,190	\$ 1,948,046	\$ 904,856	88.50%
20					
21	Irrigation				
22	5/8 inch meter	\$ 1,076	\$ 2,076	1,000	92.91%
23	3/4 inch meter	36,882	65,031	28,149	76.32%
24	1 inch meter	153,062	293,272	140,210	91.60%
25	1.5 inch meter	156,419	292,425	136,006	86.95%
26	2 inch meter	895,159	1,748,366	853,207	95.31%
27	4 inch meter	104,340	206,372	102,032	97.79%
28	Subtotal Irrigation	\$ 1,346,938	\$ 2,607,542	\$ 1,260,604	92.26%
29					
30	Hydrant	\$ 110,558	\$ 185,591	\$ 75,033	67.87%
31					
32	Total Metered Revenue	\$ 6,750,300	\$ 11,426,878	\$ 4,676,578	69.28%

PROPOSED RATES AND CHARGES

LINE NO.	DESCRIPTION	MONTHLY MINIMUM	PROPOSED CHARGES AND USAGE FEES
1	RESIDENTIAL CUSTOMERS		
2	5/8-inch & 3/4-inch Meters	\$ 10.00	
3	First Tier - Zero to 5,000 Gallons		\$ 1.0000
4	Second Tier - Next 7,000 Gallons		1.8500
5	Third Tier - In Excess Of 12,000 Gallons		2.9077
6			
7	1-inch Meters	\$ 25.00	
8	First Tier - First 20,000 Gallons		1.8500
9	Second Tier - In Excess Of 20,000 Gallons		2.9077
10			
11	1.5-inch Meters	\$ 50.00	
12	First Tier - First 50,000 Gallons		1.8500
13	Second Tier - In Excess Of 50,000 Gallons		2.9077
14			
15	2-inch Meters	\$ 80.00	
16	First Tier - First 75,000 Gallons		1.8500
17	Second Tier - In Excess Of 75,000 Gallons		2.9077
18			
19	4-inch Meters	\$ 250.00	
20	First Tier - First 250,000 Gallons		1.8500
21	Second Tier - In Excess Of 250,000 Gallons		2.9077
22			
23	COMMERCIAL CUSTOMERS		
24	5/8-inch & 3/4-inch Meters	\$ 10.00	
25	First Tier - Zero to 12,000 Gallons		1.8500
26	Second Tier - In Excess Of 12,000 Gallons		2.9077
27			
28	1-inch Meters	\$ 25.00	
29	First Tier - First 20,000 Gallons		1.8500
30	Second Tier - In Excess Of 20,000 Gallons		2.9077
31			
32	1.5-inch Meters	\$ 50.00	
33	First Tier - First 50,000 Gallons		1.8500
34	Second Tier - In Excess Of 50,000 Gallons		2.9077
35			
36	2-inch Meters	\$ 80.00	
37	First Tier - First 75,000 Gallons		1.8500
38	Second Tier - In Excess Of 75,000 Gallons		2.9077
39			

PROPOSED RATES AND CHARGES

LINE NO.	DESCRIPTION	MONTHLY MINIMUM	PROPOSED CHARGES AND USAGE FEES
40	4-inch Meters	\$ 250.00	
41	First Tier - First 250,000 Gallons		1.8500
42	Second Tier - In Excess Of 250,000 Gallons		2.9077
43			
44	8-inch Meters	\$ 750.00	
45	First Tier - First 500,000 Gallons		1.8500
46	Second Tier - In Excess Of 500,000 Gallons		2.9077
47			
48	10-inch Meters	\$ 1,000.00	
49	First Tier - First 750,000 Gallons		1.8500
50	Second Tier - In Excess Of 750,000 Gallons		2.9077
51			
52	IRRIGATION CUSTOMERS		
53	5/8-inch & 3/4-inch Meters	\$ 10.00	
54	First Tier - First 12,000 Gallons		1.8500
55	Second Tier - In Excess Of 12,000 Gallons		2.9077
56			
57	1-inch Meters	\$ 25.00	
58	First Tier - First 20,000 Gallons		1.8500
59	Second Tier - In Excess Of 20,000 Gallons		2.9077
60			
61	1.5-inch Meters	\$ 50.00	
62	First Tier - First 50,000 Gallons		1.8500
63	Second Tier - In Excess Of 50,000 Gallons		2.9077
64			
65	2-inch Meters	\$ 80.00	
66	First Tier - First 75,000 Gallons		1.8500
67	Second Tier - In Excess Of 75,000 Gallons		2.9077
68			
69	4-inch Meters	\$ 250.00	
70	First Tier - First 250,000 gallons		1.8500
71	Second Tier - In Excess Of 250,000 Gallons		2.9077
72			
73	Hydrant Rate	\$ 168.00	\$ 4.2000

SONN S. ROWELL, CPA
SURREBUTTAL EXHIBIT 2
WASTEWATER DIVISION SCHEDULES 1 THRU 5

Revenue Requirement

LINE NO.	DESCRIPTION	(A) COMPANY OCRB/FVRB COST	(B) RUCO OCRB/FVRB COST
1	Adjusted Original Cost/Fair Value Rate Base	\$ 28,296,903	\$ 22,750,383
2			
3	Adjusted Operating Income/(Loss)	163,778	499,992
4			
5	Current Rate of Return (L3 / L1)	0.58%	2.20%
6			
7	Required Operating Income (L9 X L1)	\$ 3,228,677	\$ 1,942,883
8			
9	Required Rate of Return on Fair Value Rate Base	11.410%	8.540%
10			
11	Operating Income Deficiency (L7 - L3)	\$ 3,064,899	\$ 1,442,890
12			
13	Gross Revenue Conversion Factor (Schedule 1, Page 2)	1.6286	1.6511
14			
15	Required Increase in Gross Revenue Requirement (L11 X L13)	\$ 4,991,601	\$ 2,382,310
16			
17	Adjusted Test Year Revenue	\$ 6,356,374	\$ 6,359,187
18			
19	Proposed Annual Revenue (L15 + L17)	\$ 11,347,975	\$ 8,741,497
20			
21	Required Percentage Increase in Revenue (L15 / L17)	78.53%	37.46%
22			
23	Rate of Return on Common Equity	12.500%	8.010%

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
CALCULATION OF GROSS REVENUE CONVERSION FACTOR:					
1	Revenue	1.0000			
2	Combined Federal And State Tax Rate (Line 13)	(0.3860)			
3	Effective Property Tax Factor	(0.0084)			
4	Subtotal (Line 1 + Line 2 + Line 3)	0.6057			
5	Revenue Conversion Factor (L1 / L4)	1.6511			
6					
CALCULATION OF EFFECTIVE TAX RATE:					
8	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
9	Arizona State Income Tax Rate	6.9680%			
10	Federal Taxable Income (L8 - L9)	93.0320%			
11	Applicable Federal Income Tax Rate (Col. (D), L48)	34.0000%			
12	Effective Federal Income Tax Rate (L10 X L11)	31.6309%			
13	Combined Federal And State Income Tax Rate (L9 + L12)	38.5989%			
14					
15	Required Operating Income (Sch.-1, Pg 1, Col. (B), L7)	1,942,883			
16	Adjusted T.Y. Oper'g Inc. (Loss) (Sch.-1, Pg 1, Col (B), L3)	499,992			
17	Required Increase In Operating Income (L15 - L16)		\$ 1,442,890		
18					
19	Income Taxes On Recommended Revenue (Col. (D), L43)	\$ 1,058,324			
20	Income Taxes On Test Year Revenue (Col. (D), L45)	151,273			
21	Required Increase In Revenue To Provide For Income Taxes (L19 - L20)		\$ 907,051		
22					
23	Property Taxes on Recommended Revenue (Schedule 4, Col (E), L31)	\$ 287,075			
24	Property Taxes On Test Year Revenue (Schedule 4, Col. C, L31)	254,705			
25	Required Increase In Revenue To Provide For Property Taxes (L23 - L24)		\$ 32,370		
26					
27	Total Required Increase In Revenue (L17 + L21 + L25)		\$ 2,382,310		
28					
CALCULATION OF INCOME TAX:					
30	Revenue (Sch -1, Pg 1, Col. (B), L19)			RUCO RECOMMENDED	
31	Operating Expense Excluding Income Tax (Sch 4, Col (E), L35 - L32)			\$ 8,741,497	
32	Synchronized Interest (Col. (C), L53)			5,740,291	
33	Arizona Taxable Income (L30 - L31 - L32)			259,354	
34	Arizona State Income Tax Rate			\$ 2,741,851	
35	Arizona Income Tax (L33 X L34)			6.9680%	
36	Fed. Taxable Income (L33 - L35)			\$ 191,052	
37	Fed. Tax on 1st Inc. Bracket (\$1 - \$50,000) @ 15%			\$ 2,550,799	
38	Fed. Tax on 2nd Inc. Bracket (\$50,001 - \$75,000) @ 25%			\$ 7,500	
39	Fed. Tax on 3rd Inc. Bracket (\$75,001 - \$100,000) @ 34%			6,250	
40	Fed. Tax on 4th Inc. Bracket (\$100,001 - \$335,000) @ 39%			8,500	
41	Fed. Tax on 5th Inc. Bracket (\$335,001 - \$10M) @ 34%			91,650	
42	Total Federal Income Tax (L37 + L38 + L39 + L40 + L41)			753,372	
43	Combined Federal and State Income Tax (L35 + L42)			867,272	
44				\$ 1,058,324	
45	Test Year Combined Income Tax, RUCO as Adjusted (Sch 4, Col. (C), L32)			\$ 151,273	
46	RUCO Adjustment To Proposed Income Tax (L43 - L45) (See Sch 4, Col. (D), L32)			\$ 907,051	
47					
48	Applicable Federal Income Tax Rate (Col. (D), L42 / Col. (C), L36)				34.00%
49					
CALCULATION OF INTEREST SYNCHRONIZATION:					
51	Rate Base			\$ 22,750,383	
52	Weighted Avg. Cost of Debt			1.14%	
53	Synchronized Interest (L51 X L52)			\$ 259,354	

RATE BASE - ORIGINAL COST

LINE NO.	(A) COMPANY AS FILED OCRB/FVRB	(B) RUCO ADJMT No. 1	(C) RUCO ADJMT No. 2	(D) RUCO ADJMT No. 3	(E) RUCO ADJMT No. 4	(F) RUCO ADJMT No. 5	(G) RUCO ADJMT No. 6	(H) RUCO ADJMT OCRB/FVRB
1	Gross Utility Plant in Service	\$ 60,394,260	\$ (5,464,782)					\$ 54,929,478
2	Accumulated Depreciation	(8,475,991)	191,927					(8,284,064)
3	Net Utility Plant in Service (Sum L1 & L3)	\$ 51,918,269	\$ (5,272,855)	\$ -	\$ -	\$ -	\$ -	\$ 46,645,414
4	Less:							
5	Advances in Aid Of Construction	\$ (7,006,208)		\$ 16,649				\$ (6,989,559)
6	Contribution in Aid of Const.	\$ (18,737,132)		\$ 93,346				\$ (18,643,786)
7	Accumulated Amortization of CIAC	2,072,117						2,072,117
8	NET CIAC (L10 + L11)	\$ (16,665,015)	\$ -	\$ -	\$ 93,346	\$ -	\$ -	\$ (16,571,669)
9	Customer Meter Deposits	\$ (68,685)				\$ 68,685		\$ -
10	Deferred Income Tax	(15,987)					(317,816)	(333,803)
11	Plus:							
12	Unamortized Debt Issuance Costs	\$ 134,528	\$ (134,528)					\$ -
13								
14								
15								
16								
17								
18								
19								
20								
21								
22	TOTAL RATE BASE (Sum Lines's 5,8,12-18)	\$ 28,296,902	\$ (5,272,855)	\$ (134,528)	\$ -	\$ 109,995	\$ 68,685	\$ 22,750,383

References:

- Column (A): Company Schedule B-1
- Column (B): RUCO Surrebuttal Schedule 2, Page 2
- Column (C): Per Company Rebuttal Schedule B-2, Page 2, Adjustment 6
- Column (D): Deleted
- Column (E): Per Company Rebuttal Schedule B-2, Page 2, Adjustment 4
- Column (F): Per Company Rebuttal Schedule B-2, Page 2, Adjustment 5
- Column (G): RUCO Surrebuttal Schedule 2, Page 3
- Column (H): Sums of Column (A) through Column (G)

**EXPLANATION OF RATE BASE ADJUSTMENT NO. 1
TO UTILITY PLANT IN SERVICE**

LINE NO.	DESCRIPTION	AMOUNT	REFERENCE
1	RUCO Proposed Utility Plant In Service At End of Test Year	\$ 54,929,478	RUCO Schedule 3, Page 1
2			
3	Company Proposed Utility Plant In Service At End of Test Year	60,394,260	Company Schedule B-1
4			
5	RUCO Proposed Adjustment To Utility Plant in Service	<u>\$ (5,464,782)</u>	
6			
7			
8	Accumulated Depreciation At End of Prior Test Year	\$ 1,261,559	Amount Per RUCO TJC-2
9	2001 Depreciation Expense	299,711	
10	2002 Depreciation Expense	481,407	
11	2003 Depreciation Expense	975,920	
12	2004 Depreciation Expense	1,053,822	
13	2005 Depreciation Expense	1,200,551	
14	2006 Depreciation Expense	1,316,996	
15	2007 Depreciation Expense	1,398,229	
16	2008 Depreciation Expense (9 months)	<u>1,184,709</u>	
17	Subtotal	\$ 9,172,904	Sum of Lines 8 through 16
18			
19	Less 2002 Retirements	\$ (780,874)	
20	Less 2007 Retirements	(96,926)	
21	Black Mountain Sewer Transfer/Adjustment	<u>(11,040)</u>	
22	Subtotal	\$ (888,840)	Sum of Lines 19 through 21
23			
24	RUCO Proposed Accumulated Depreciation At End of Test Year	\$ 8,284,064	Line 17 plus Line 22
25			
26	Company Proposed Accumulated Depreciation At End of Test Year	\$ 8,475,991	Company Schedule B-1
27			
28	RUCO Proposed Adjustment To Accumulated Depreciation	<u>\$ (191,927)</u>	Line 24 - Line 26

Calculation of Estimated Deferred Income Taxes

Line No.	Asset Description	Date Placed In Service	Basis for Depreciation	RUCO		Yrs. of Accum. Depreciation as of Dec. 31, 2006 (Includes Half-Year Convention)	Accumulated Depreciation As of December 31, 2006		Excess of Accelerated Depreciation over S/L Depreciation
				Proposed S/L Depreciation Rate (%)	Annual S/L Depreciation Expense		S/L as per RUCO Proposed Rate	Accelerated as per LPSCO 2006 Depreciation Schedule	
1	TRANSMISSION & DIST	6/1/1988	\$ 6,404	2.00%	\$ 128	18.5	\$ 2,369	\$ 5,929	\$ 3,560
2	METERS	6/1/1990	714	8.33%	59	16.5	981	598	(383)
3	METERS	6/1/1991	665	8.33%	55	15.5	859	528	(331)
4	LINE REPLACEMENT	6/1/1992	46,046	2.00%	921	14.5	13,353	34,406	21,053
5	NEW WELL	6/1/1992	266,687	3.33%	8,881	14.5	128,770	199,265	70,495
6	LINE REPLACEMENT	6/1/1993	2,596	2.00%	52	13.5	701	1,824	1,123
7	OFFICE FURNITURE	6/1/1989	26,188	6.67%	1,747	17.5	30,568	26,188	(4,380)
8	OFFICE FURNITURE	6/1/1990	1,213	6.67%	81	16.5	1,335	1,213	(122)
9	OFFICE EQUIPMENT	6/1/1990	700	6.67%	47	16.5	770	700	(70)
10	OFFICE EQUIPMENT	6/1/1991	2,805	6.67%	187	15.5	2,900	2,805	(95)
11	FIRE HYDRANTS	6/1/1991	5,477	2.00%	110	15.5	1,698	5,424	3,726
12	OFFICE EQUIPMENT	6/1/1992	4,513	6.67%	301	14.5	4,365	4,513	148
13	FIRE HYDRANTS	6/1/1993	106	2.00%	2	13.5	29	95	66
14	SOFTWARE	1/1/1995	703	20.00%	141	11.5	1,617	693	(924)
15	FIRE HYDRANTS	2/1/1995	1,500	2.00%	30	11.5	345	923	578
16	TOOLS - WATER	3/1/1995	647	5.00%	32	11.5	372	647	275
17	METERS & METER BOXES	6/1/1995	94,549	8.33%	7,876	11.5	90,573	57,990	(32,583)
18	8" SEWER HNYSCKLE	2/1/1995	2,413	2.00%	48	11.5	555	1,485	930
19	PUMP STN EQU UPGRADE	6/1/1995	51,302	12.50%	6,413	11.5	73,747	31,466	(42,281)
20	WATER LINE VALVE	12/1/1995	1,613	2.00%	32	11.5	371	989	618
21	WATER LINE REPAIRS	6/1/1995	54,210	2.00%	1,084	11.5	12,468	33,248	20,780
22	WATER METERS	1/31/1996	12,109	8.33%	1,009	10.5	10,591	6,915	(3,676)
23	LINE REPLACEMENT	2/14/1996	70,165	2.00%	1,403	10.5	14,735	40,074	25,339
24	WATER METERS	2/29/1996	1,769	8.33%	147	10.5	1,547	1,010	(537)
25	WELLS	3/18/1996	14,529	3.33%	484	10.5	5,080	8,261	3,181
26	METERS	3/30/1996	8,434	8.33%	703	10.5	7,377	4,795	(2,582)
27	HYDRANTS	4/11/1996	19,156	2.00%	383	10.5	4,023	10,893	6,870
28	METERS	4/30/1996	4,643	8.33%	387	10.5	4,061	2,640	(1,421)
29	METERS	5/15/1996	8,292	8.33%	691	10.5	7,253	4,715	(2,538)
30	METERS	6/24/1996	4,217	8.33%	351	10.5	3,688	2,398	(1,290)
31	SERVICE LINES	6/30/1996	4,411	3.33%	147	10.5	1,542	2,509	967
32	COMPUTER	7/12/1996	192	20.00%	38	10.5	403	192	(211)
33	COMPUTER	7/12/1996	903	20.00%	181	10.5	1,896	903	(993)
34	METERS	7/31/1996	6,254	8.33%	521	10.5	5,470	3,557	(1,913)
35	METERS	8/15/1996	18,373	8.33%	1,530	10.5	16,070	10,448	(5,622)
36	WATER LINES	8/15/1996	241,824	2.00%	4,836	10.5	50,783	137,506	86,723
37									
38	METERS	9/1/1996	13,445	8.33%	1,120	10.5	11,760	7,646	(4,114)
39	SOFTWARE	9/11/1996	1,515	20.00%	303	10.5	3,182	1,515	(1,667)
40	SOFTWARE	9/11/1996	379	20.00%	76	10.5	796	379	(417)
41	METERS	10/1/1996	7,209	8.33%	601	10.5	6,305	3,281	(3,024)
42	METERS	11/1/1996	9,974	8.33%	831	10.5	8,724	4,618	(4,106)
43	SERVICE LINES	11/5/1996	38,759	3.33%	1,291	10.5	13,552	17,945	4,393
44	SEWER PMP CTRL PANEL	11/30/1996	384	12.50%	48	10.5	504	177	(327)
45	TOOLS	12/16/1996	583	5.00%	29	10.5	306	583	277
46	FURNITURE	12/16/1996	219	6.67%	15	10.5	153	219	66
47	FURNITURE	12/16/1996	219	6.67%	15	10.5	153	219	66
48	SERVICES	12/31/1996	5,355	3.33%	178	10.5	1,872	2,479	607
49	METERS	12/31/1996	4,217	8.33%	351	10.5	3,688	1,954	(1,734)
50	L.S. STARTUP	12/31/1996	776	8.33%	65	10.5	679	359	(320)
51	UPGRADE TO STRUCTURE	9/18/1997	216	3.33%	7	9.5	68	53	(15)
52	WELL UPGRADE	8/8/1997	2,204	3.33%	73	9.5	697	861	164
53	CONTROL SYSTEM	8/25/1997	203	3.33%	7	9.5	64	94	30
54	PUMPING UPGRADE	4/22/1997	1,598	12.50%	200	9.5	1,898	736	(1,162)
55	UPGRADE PUMPING EQUIP	10/8/1997	93,433	12.50%	11,679	9.5	110,952	46,359	(64,593)
56	UPGRADE PUMP CONTROL	8/25/1997	29,342	12.50%	3,668	9.5	34,844	14,560	(20,284)
57	WATER TREATMENT UPGR	10/9/1997	964	3.33%	32	9.5	305	480	175
58	UPGRADE TO PUMP CTRL	10/2/1997	19,191	12.50%	2,399	9.5	22,789	9,524	(13,265)
59	UPGRADE TO PUMPS	12/9/1997	367	12.50%	46	9.5	436	183	(253)

Calculation of Estimated Deferred Income Taxes

Line No.	Asset Description	Date Placed In Service	Basis for Depreciation	RUCO Proposed S/L Depreciation Rate (%)	Annual S/L Depreciation Expense	Yrs. of Accum. Depreciation as of Dec. 31, 2006 (Includes Half-Year Convention)	Accumulated Depreciation As of December 31, 2006		Excess of Accelerated Depreciation over S/L Depreciation
							S/L as per RUCO Proposed Rate	Accelerated as per LPSCO 2006 Depreciation Schedule	
60	WATER LINES	4/26/1997	1,801	2.00%	36	9.5	342	690	348
61	VALVES	5/12/1997	1,437	2.00%	29	9.5	273	550	277
62	UPGR LG BOOSTER PUMP	9/26/1997	3,668	12.50%	459	9.5	4,356	1,690	(2,666)
63	SERVICE LINES	4/8/1997	10,090	3.33%	336	9.5	3,192	3,869	677
64	SERVICE LINES	6/19/1997	4,698	3.33%	156	9.5	1,486	1,801	315
65	SERVICE LINE REPLACE	10/20/1997	11,206	3.33%	373	9.5	3,545	4,295	750
66	SERVICE LINES	12/9/1997	2,010	3.33%	67	9.5	636	769	133
67	METERS & METER BOXES	1/16/1997	5,030	8.33%	419	9.5	3,980	1,928	(2,052)
68	METERS 1997	6/30/1997	7,205	8.33%	600	9.5	5,702	2,761	(2,941)
69	METERS WATER 1997	12/31/1997	55,272	8.33%	4,604	9.5	43,739	21,188	(22,551)
70	HYDRANTS	12/9/1997	2,029	2.00%	41	9.5	386	778	392
71	TOOLS	6/1/1997	221	5.00%	11	9.5	105	215	110
72	TOOLS	12/31/1997	132	5.00%	7	9.5	63	129	66
73	TOOLS	12/31/1997	33	5.00%	2	9.5	16	33	17
74									
75	OFFICE FURNITURE	2/12/1997	146	6.67%	10	9.5	93	146	53
76	COPIER PARTS	5/8/1997	245	6.67%	16	9.5	155	236	81
77	MISC EQUIPMENT	2/12/1996	36	10.00%	4	10.5	38	30	(8)
78	COMPUTER	12/30/1997	2,257	20.00%	451	9.5	4,288	2,198	(2,090)
79	COMPUTER	12/30/1997	564	20.00%	113	9.5	1,072	549	(523)
80	CELL PHONE	5/30/1997	298	10.00%	30	9.5	283	287	4
81	SEWER LINES	8/15/1996	2,489,678	2.00%	49,794	10.5	522,832	1,369,940	847,108
82	SEWER COLLECT SYSTEM	12/15/1997	36,911	2.00%	738	9.5	7,013	14,424	7,411
83	METERS 1998	1/21/1998	10,585	8.33%	882	8.5	7,495	3,527	(3,968)
84	METERS 1998	3/19/1998	9,735	8.33%	811	8.5	6,893	3,244	(3,649)
85	METERS 1998	3/19/1998	1,890	8.33%	157	8.5	1,338	631	(707)
86	METERS 1998	5/27/1998	4,390	8.33%	366	8.5	3,108	1,464	(1,644)
87	METERS 1998	6/11/1998	8,968	8.33%	747	8.5	6,350	2,990	(3,360)
88	METERS 1998	7/11/1998	27,839	8.33%	2,319	8.5	19,711	9,281	(10,430)
89	METERS 1998	8/18/1998	4,530	8.33%	377	8.5	3,207	1,509	(1,698)
90	METERS 1998	9/10/1998	5,435	8.33%	453	8.5	3,848	1,810	(2,038)
91	GENERATOR	1/31/1998	68,655	5.00%	3,433	8.5	29,178	22,885	(6,293)
92	COMPUTER - MAC	5/19/1998	519	20.00%	104	8.5	882	512	(370)
93	COMPUTER - MAC	5/19/1998	2,078	20.00%	416	8.5	3,533	2,049	(1,484)
94	1998 WATER EQUIPMENT	6/1/1998	179,329	3.33%	5,972	8.5	50,759	59,776	9,017
95	SOFTWARE	4/16/1998	325	20.00%	65	8.5	553	325	(228)
96	HYDRANTS	6/1/1998	10,653	2.00%	213	8.5	1,811	3,550	1,739
97	COMPUTER	2/28/1998	1,175	20.00%	235	8.5	1,998	1,077	(921)
98	SOFTWARE	4/16/1998	1,299	20.00%	260	8.5	2,208	1,299	(909)
99	1998 WATER EQUIPMENT	6/1/1998	29,351	3.33%	977	8.5	8,308	9,783	1,475
100	ACEDALINE TORCH	3/31/1998	403	6.67%	27	8.5	228	403	175
101	1998 WATER EQUIPMENT	6/1/1998	180,953	3.33%	6,026	8.5	51,219	60,317	9,098
102	WELL 20B	10/30/1999	179,869	3.33%	5,990	7.5	44,922	26,380	(18,542)
103	1999 WATER EQUIPMENT	6/1/1999	60,570	3.33%	2,017	7.5	15,127	17,768	2,641
104	WATER LINES	12/30/1999	252,528	2.00%	5,051	7.5	37,879	37,039	(840)
105	1999 WATER EQUIPMENT	6/1/1999	411,841	3.33%	13,714	7.5	102,857	120,808	17,951
106	WATER UTILITY - 1986	6/1/1986	794,158		-	20.5		759,744	759,744
107	SOFTWARE	6/1/1999	25,625	20.00%	5,125	7.5	38,438	25,625	(12,813)
108	1999 OFFICE EQUIPMENT	6/1/1999	12,196	6.67%	813	7.5	6,101	12,003	5,902
109	1999 COMPUTER	6/1/1999	11,436	20.00%	2,287	7.5	17,154	11,217	(5,937)
110	TRUCK EQUIPMENT	1/28/2000	901	20.00%	180	6.5	1,171	901	(270)
111									
112	POWER GEN PART	6/17/1999	496	5.00%	25	7.5	186	146	(40)
113	COLLECTION LINES	12/7/1999	361,075	2.00%	7,222	7.5	54,161	52,959	(1,202)
114	1999 WATER EQUIPMENT	6/1/1999	14,017	3.33%	467	7.5	3,501	4,113	612
115	RECLAIMED WATER SYST	12/7/1999	303,251	2.00%	6,065	7.5	45,488	44,476	(1,012)
116	TRANSMISSION LINE	12/1/2000	58,813	2.00%	1,176	6.5	7,646	14,900	7,254
117	TRANSMISSION LINE	11/1/2000	59,364	2.00%	1,187	6.5	7,717	18,799	11,082
118	TRANSMISSION LINE	12/1/2000	156,714	2.00%	3,134	6.5	20,373	19,850	(523)

Calculation of Estimated Deferred Income Taxes

Line No.	Asset Description	Date Placed In Service	Basis for Depreciation	RUCO		Yrs. of Accum. Depreciation as of Dec. 31, 2006 (Includes Half-Year Convention)	Accumulated Depreciation As of December 31, 2006		Excess of Accelerated Depreciation over S/L Depreciation
				Proposed S/L Depreciation Rate (%)	Annual S/L Depreciation Expense		S/L as per RUCO Proposed Rate	Accelerated as per LPSCO 2006 Depreciation Schedule	
119	2000 WATER EQUIPMENT	6/1/2000	426,534	3.33%	14,204	6.5	92,323	108,054	15,731
120	OFFICE FURNITURE	12/1/2000	396	6.67%	26	6.5	172	369	197
121	COMPUTER	12/1/2000	3,901	20.00%	780	6.5	5,071	3,826	(1,245)
122	2000 OFFICE FURNITURE	6/1/2000	5,540	6.67%	370	6.5	2,402	5,179	2,777
123	2000 COMPUTER	6/1/2000	19,235	20.00%	3,847	6.5	25,006	18,866	(6,140)
124	DOOR SCREEN	5/1/2000	1,186	3.33%	39	6.5	257	575	318
125	2000 SOFTWARE	6/1/2000	2,462	20.00%	492	6.5	3,201	2,336	(865)
126	2000 WATER EQUIPMENT	6/1/2000	595,048	3.33%	19,815	6.5	128,798	150,745	21,947
127	RECLAIMED WATER LINE	6/1/2000	67,722	2.00%	1,354	6.5	8,804	8,577	(227)
128	SERVICE LINES	8/1/2000	1,014,366	2.00%	20,287	6.5	131,868		(131,868)
129	2001 SOFTWARE	5/1/2001	250	20.00%	50	5.5	275	229	(46)
130	2001 COMPUTER	5/1/2001	4,033	20.00%	807	5.5	4,436	3,904	(532)
131	2001 OFFICE EQUIPMENT	5/1/2001	500	6.67%	33	5.5	183	419	236
132	2001 TOOL & SHOP	5/1/2001	2,586	5.00%	129	5.5	711	1,401	690
133	2001 DISTRIBUTION LINE	5/1/2001	2,327,233	2.20%	51,199	5.5	281,595	246,540	(35,055)
134	2001 WATER EQUIPMENT	5/1/2001	1,877,576	3.33%	62,523	5.5	343,878	393,589	49,711
135	2001 WATER EQUIPMENT	10/1/2001	138,025	3.33%	4,596	5.5	25,279	27,784	2,505
136	SEWER LINES	10/31/2001	61,119	2.00%	1,222	5.5	6,723	6,111	(612)
137	SOFTWARE	12/10/2001	2,100	20.00%	420	5.5	2,310	2,041	(269)
138	OFFICE EQUIPMENT	10/15/2001	1,751	6.67%	117	5.5	642	1,466	824
139	SOFTWARE	12/10/2001	525	20.00%	105	5.5	578	511	(67)
140	FILE DRAWER	10/15/2001	369	6.67%	25	5.5	135	358	223
141	OFFICE EQUIPMENT	10/23/2001	69	6.67%	5	5.5	25	58	33
142	TRANSPORTATION EQUIP	9/18/2001	600	20.00%	120	5.5	660	581	(79)
143	2002 SOFTWARE	6/1/2002	5,352	20.00%	1,070	4.5	4,817	4,560	(257)
144	2002 VEHICLE	11/8/2002	6,695	20.00%	1,339	4.5	6,026	5,025	(1,001)
145	2002 OFFICE EQUIPMENT	6/1/2002	53,503	6.67%	3,569	4.5	16,059	39,381	23,322
146	METERS	6/1/1992	42,470	8.33%	3,538	14.5	51,297	27,037	(24,260)
147	2002 WATER EQUIPMENT	6/1/2002	11,776,139	3.33%	392,145	4.5	1,764,654	2,046,210	281,556
148					-		-		-
149	WATER EQUIPMENT	2/1/2003	67,808	3.33%	2,258	3.5	7,903	10,396	2,493
150	TOOLS & EQUIPMENT	9/1/2003	5,793	5.00%	290	3.5	1,014	3,846	2,832
151	SEWER PLANT & EQUIP	9/1/2003	529	3.33%	18	3.5	62	70	8
152	LABORATORY EQUIPMENT	9/1/2003	1,140	10.00%	114	3.5	399	153	(246)
153	COMMUNICATION EQUIP	3/31/3003	1,583	10.00%	158	3.5	554	1,257	703
154	COMMUNICATION EQUIP	9/1/2003	7,189	10.00%	719	3.5	2,516	5,706	3,190
155	OFFICE FURNITURE	3/31/3003	517	6.67%	34	3.5	121	344	223
156	OFFICE FURNITURE	9/1/2003	15,296	6.67%	1,020	3.5	3,571	10,152	6,581
157	POST '96 AIAC REFUNDS	3/31/3003	2,997	3.33%	100	3.5	349	450	101
158	COMMUNICATION EQUIP	1/1/2004	4,513	10.00%	451	2.5	1,128	543	(585)
159	DISTRIBUTION RESERVOIR	2/1/2004	58,886	2.20%	1,295	2.5	3,239	6,869	3,630
160	HYDRANTS	2/1/2004	194	2.00%	4	2.5	10	23	13
161	FLOW MEASURING DEVICE	3/1/2004	5,326	10.00%	533	2.5	1,332	604	(728)
162	COLLECTION SEWERS FO	11/1/2004	20,252	2.00%	405	2.5	1,013	1,755	742
163	LABORATORY EQUIPMENT	9/1/2004	2,046	10.00%	205	2.5	512	191	(321)
164	METERS & METER INS	7/1/2004	152,100	8.33%	12,670	2.5	31,675	15,210	(16,465)
165	OFFICE FURNITURE & EQUIP	4/1/2004	65,136	6.67%	4,345	2.5	10,861	36,652	25,791
166	PUMPING EQUIPMENT	3/1/2004	51,387	12.50%	6,423	2.5	16,058	5,823	(10,235)
167	SERVICE LINES	7/1/2004	88,747	3.33%	2,955	2.5	7,388	8,875	1,487
168	LAND & LAND RIGHTS	4/1/2004	41,026	0.00%	-	2.5	-	-	-
169	STRUCTURES & IMPRO	10/1/2004	297,972	3.33%	9,922	2.5	24,806	26,818	2,012
170	POWER GENERATION EQUIP	8/1/2004	60,383	5.00%	3,019	2.5	7,548	5,836	(1,712)
171	TOOLS, SHOP & GARAGE	7/1/2004	323	5.00%	16	2.5	40	32	(8)
172	TRANSMISSION & DIST MAINS	5/1/2004	1,186,484	2.00%	23,730	2.5	59,324	126,558	67,234
173	WATER TREATMENT EQUIP	6/1/2004	26,811	3.33%	893	2.5	2,232	2,770	538
174	WELLS & SPRINGS	6/1/2004	2,080	3.33%	69	2.5	173	215	42
175	TRANSPORTATION EQUIP	9/1/2004	14,112	20.00%	2,822	2.5	7,056	1,316	(5,740)
176	OTHER TANGIBLE PLANT	3/1/2004	52,734	10.00%	5,273	2.5	13,184	5,976	(7,208)
177	POST '96 AIAC REFUNDS	7/1/2004	143,251	3.33%	4,770	2.5	11,926	14,325	2,399

Calculation of Estimated Deferred Income Taxes

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				Proposed S/L Depreciation Rate (%)	Annual S/L Depreciation Expense		S/L as per RUCO Proposed Rate	Accelerated as per LPSCO 2006 Depreciation Schedule	
178	WATER EQUIPMENT - JAN	1/1/2005	196,930	3.33%	6,558	1.5	9,837	15,754	5,917
179	WATER EQUIPMENT - FEB	2/1/2005	65,175	3.33%	2,170	1.5	3,255	4,997	1,742
180	WATER EQUIPMENT - MARCH	3/1/2005	55,130	3.33%	1,836	1.5	2,754	4,043	1,289
181	OFFICE FURNITURE	3/1/2005	11,690	6.67%	780	1.5	1,170	4,534	3,364
182	WATER EQUIPMENT - APRIL	4/1/2005	41,622	3.33%	1,386	1.5	2,079	2,914	835
183	OFFICE FURNITURE	4/1/2005	105	6.67%	7	1.5	11	41	30
184	COMPUTERS	4/1/2005	2,460	20.00%	492	1.5	738	1,279	541
185									
186	WATER EQUIP - MAY	5/1/2005	99,464	3.33%	3,312	1.5	4,968	6,631	1,663
187	WATER EQUIP - JUNE	6/1/2005	285,963	3.33%	9,523	1.5	14,284	18,111	3,827
188	WATER EQUIP - JULY	7/1/2005	85,126	3.33%	2,835	1.5	4,252	5,108	856
189	WATER EQUIP - AUGUST	8/1/2005	172,145	3.33%	5,732	1.5	8,599	9,755	1,156
190	WATER EQUIP - SEPT	9/1/2005	260,636	3.33%	8,679	1.5	13,019	13,900	881
191	WATER EQUIP - OCT	10/1/2005	65,749	3.33%	2,189	0.5	1,095	657	(438)
192	WATER EQUIP - NOV	11/1/2005	84,208	3.33%	2,804	1.5	4,206	3,929	(277)
193	WATER EQUIP - DEC	12/1/2005	546,547	3.33%	18,200	1.5	27,300	23,684	(3,616)
194	METERS &	1/15/2006	77,741	8.33%	6,476	0.5	3,238	1,555	(1,683)
195	TRANSMISSION	1/15/2006	747	2.00%	15	0.5	7	30	23
196	FORCE	1/15/2006	40,291	2.00%	806	0.5	403	1,612	1,209
197	PUMPING	1/15/2006	500	12.50%	63	0.5	31	20	(11)
198	STRUCTURES & IMPRO	1/15/2006	1,350	3.33%	45	0.5	22	54	32
199	PUMPING	2/15/2006	7,509	12.50%	939	0.5	469	275	(194)
200	METERS &	2/15/2006	69,281	8.33%	5,771	0.5	2,886	2,540	(346)
201	TREATMENT	2/15/2006	2,429	3.33%	81	0.5	40	89	49
202	TRANSMISSION	2/15/2006	150	2.00%	3	0.5	2	6	5
203	METERS &	3/15/2006	36,114	8.33%	3,008	0	-	-	-
204	FORCE	3/15/2006	450	2.00%	9	0.5	5	15	11
205	TRANSMISSION	3/15/2006	125	2.00%	3	0	-	-	-
206	SERVICES	3/15/2006	1,869	3.33%	62	0.5	31	62	31
207	TRANSMISSION	4/15/2006	7,188	2.00%	144	0.5	72	216	144
208	METERS &	4/15/2006	3,357	8.33%	280	0.5	140	101	(39)
209	OFFICE FURNITURE	4/12/2006	472	6.67%	31	0.5	16	84	68
210	OTHER TANGIBLE PLANT	4/30/2006	18,106	6.67%	1,208	0.5	604	483	(121)
211	SERVICES	4/30/2006	3,320	3.33%	111	0.5	55	89	34
212	TREATMENT	4/30/2006	11,236	3.33%	374	0.5	187	300	113
213	FORCE	4/30/2006	300	2.00%	6	0.5	3	8	5
214	TRANSMISSION	5/29/2006	100	2.00%	2	0.5	1	2	1
215	METERS &	5/17/2006	21,910	8.33%	1,825	0.5	913	511	(402)
216	OFFICE FURNITURE	5/4/2006	2,191	6.67%	146	0.5	73	391	318
217	LABORATORY EQUIPMENT	5/31/2006	3,221	10.00%	322	0.5	161	77	(84)
218	OTHER TANGIBLE PLANT	5/31/2006	2,638	6.67%	176	0.5	88	62	(26)
219	SERVICES	5/16/2006	2,781	3.33%	93	0.5	46	65	19
220	TREATMENT	5/31/2006	36,458	3.33%	1,214	0.5	607	851	244
221	POWER GENERATOR	5/31/2006	16,426	5.00%	821	0.5	411	383	(28)
222									
223	METERS &	6/13/2006	19,511	8.33%	1,625	0.5	813	455	(358)
224	SERVICES	6/19/2006	12,400	3.33%	413	0.5	206	248	42
225	LABORATORY EQUIPMENT	6/30/2006	1,957	10.00%	196	0.5	98	39	(59)
226	OTHER TANGIBLE PLANT	6/30/2006	801	6.67%	53	0	-	-	-
227	PUMPING	6/29/2006	3,100	12.50%	388	0.5	194	62	(132)
228	WELLS & SPRINGS	6/30/2006	48,928	3.33%	1,629	0.5	815	979	164
229	STRUCTURES & IMPRO	6/29/2006	150	3.33%	5	0.5	2	3	1
230	METERS &	7/31/2006	19,031	8.33%	1,585	0.5	793	317	(476)
231	SERVICES	7/31/2006	33,252	3.33%	1,107	0.5	554	554	0
232	TREATMENT	7/10/2006	5,403	3.33%	180	0.5	90	108	18
233	FORCE	7/31/2006	579,402	2.00%	11,588	0.5	5,794	9,657	3,863
234	STRUCTURES & IMPRO	7/31/2006	730,847	3.33%	24,337	0.5	12,169	12,181	12
235	POWER GENERATOR	7/31/2006	115,679	5.00%	5,784	0.5	2,892	1,928	(964)
236	HYDRANTS	7/31/2006	41,743	2.00%	835	0.5	417	696	279
237	TRANSMISSION	8/31/2006	108,904	2.00%	2,178	0.5	1,089	1,452	363

Calculation of Estimated Deferred Income Taxes

Line No.	Asset Description	Date Placed In Service	Basis for Depreciation	RUCO		Yrs. of Accum. Depreciation as of Dec. 31, 2006 (Includes Half-Year Convention)	Accumulated Depreciation As of December 31, 2006		Excess of Accelerated Depreciation over S/L Depreciation
				Proposed S/L Depreciation Rate (%)	Annual S/L Depreciation Expense		S/L as per RUCO Proposed Rate	Accelerated as per LPSCO 2006 Depreciation Schedule	
238	METERS &	8/7/2006	37,926	8.33%	3,159	0.5	1,580	632	(948)
239	OFFICE FURNITURE	8/30/2006	5,263	6.67%	351	0.5	176	564	388
240	SERVICES	8/31/2006	7,400	3.33%	246	0.5	123	99	(24)
241	HYDRANTS	8/31/2006	1,100	2.00%	22	0.5	11	15	4
242	STRUCTURES & IMPRO	8/31/2006	65,100	3.33%	2,168	0.5	1,084	868	(216)
243	METERS &	9/30/2006	19,717	8.33%	1,642	0.5	821	197	(624)
244	OFFICE FURNITURE	9/27/2006	1,577	6.67%	105	0.5	53	169	116
245	SERVICES	9/22/2006	8,850	3.33%	295	0.5	147	89	(58)
246	STRUCTURES & IMPRO	9/30/2006	39,372	3.33%	1,311	0.5	656	394	(262)
247	METERS &	10/31/2006	20,737	8.33%	1,727	0.5	864	138	(726)
248	OFFICE FURNITURE	10/30/2006	2,465	6.67%	164	0.5	82	88	6
249	SERVICES	10/31/2006	8,755	3.33%	292	0.5	146	58	(88)
250	TREATMENT	10/30/2006	34,268	3.33%	1,141	0.5	571	228	(343)
251	STRUCTURES & IMPRO	10/30/2006	23,256	3.33%	774	0.5	387	155	(232)
252	PUMPING	10/30/2006	60	12.50%	8	0.5	4		(4)
253	TRANSPORT	10/31/2006	2,429	20.00%	486	0.5	243	16	(227)
254	METERS &	11/30/2006	209	8.33%	17	0.5	9	1	(8)
255	OFFICE FURNITURE	11/30/2006	85,082	6.67%	5,675	0.5	2,837	3,037	200
256	TREATMENT	11/30/2006	14,216	3.33%	473	0.5	237	47	(190)
257	FORCE	11/30/2006	135,206	2.00%	2,704	0.5	1,352	451	(901)
258	PUMPING	11/30/2006	2,400	12.50%	300	0.5	150	8	(142)
259									
260	STRUCTURES & IMPRO	11/30/2006	28,036	3.33%	934	0.5	467	93	(374)
261	HYDRANTS	11/30/2006	30	2.00%	1	0.5	0		(0)
262	TRANSMISSION	12/31/2006	238,303	2.00%	4,766	0.5	2,383		(2,383)
263	METERS &	12/31/2006	68,617	8.33%	5,716	0.5	2,858		(2,858)
264	OFFICE FURNITURE	12/31/2006	18,468	6.67%	1,232	0.5	616	659	43
265	SERVICES	12/31/2006	68,846	3.33%	2,293	0.5	1,146		(1,146)
266	FORCE	12/31/2006	900	2.00%	18	0.5	9		(9)
267	DISTRIBUTION MAINS	12/31/2006	16,657	2.00%	333	0.5	167		(167)
268	HYDRANTS	12/31/2006	7,800	2.00%	156	0.5	78		(78)
269	STRUCTURES & IMPRO	12/31/2006	650	3.33%	22	0.5	11		(11)
270	WELLS & SPRINGS	12/31/2006	4,000	3.33%	133	0.5	67		(67)
271	FLOW MEASURING EQUIP	12/31/2006	4,961	10.00%	496	0.5	248		(248)
272	TRANSPORT	12/31/2006	6,193	20.00%	1,239	0.5	619		(619)
273									
274	TOTALS		\$ 32,957,874				\$ 5,214,316	\$ 7,104,035	\$ 1,889,719

Information Derived from LPSCO 2006 Depreciation Schedule (provided in response to JMM 1.55)

	Calculated as per Information Shown Above	Adjusted as per Information Shown Above
276		
277		
278		
279		
280		
281		
282		
283	Total Accelerated Depreciation \$ 7,104,035	\$ 7,104,035
284	Add: Depreciation Expense Not Taken -	131,868
285	Less: S/L Depreciation (5,214,316)	(5,214,316)
286		
287	Excess Accelerated Depreciation \$ (1,889,719)	\$ (2,021,587)
288		
289	Total Tax Percentage 38.60%	38.60%
290		
291	Estimated Deferred Income Taxes \$ (729,432)	\$ (780,333)
292		
293	Wastewater Division Allocation Factor	42.7770%
294		
295	Wastewater Division Deferred Tax Liability	\$ (333,803)
296		
297	Company Amount Per Schedule B-1	15,987
298		
299	RUCO Adjustment to Deferred Taxes	\$ (317,816)

**TEST YEAR PLANT SCHEDULE
YEAR ENDED SEPTEMBER 30, 2008**

LINE NO.	ACCT. NO.	ACCOUNT NAME	(A) COMPANY ADJ TEST YR	(B) RUCO ADJUSTMENTS	(C) RUCO PLANT VALUE
1	351	Organization	\$ -	\$ -	\$ -
2	353	Land and Land Rights	1,783,426	-	1,783,426
3	354	Structures and Improvements	19,319,421	(4,269,219)	15,050,202
4	355	Power Generation Equipment	543,670	5,004	548,674
5	360	Collection Sewers - Force	1,161,105	(164,647)	996,458
6	361	Collection Sewers - Gravity	23,113,391	(565,711)	22,547,680
7	362	Special Collecting Structures	-	-	-
8	363	Customer Services	-	-	-
9	364	Flow Measuring Devices	47,019	(412)	46,607
10	366	Reuse Services	3,789,468	(1,249)	3,788,219
11	367	Reuse Meters and Installation	52,331	-	52,331
12	370	Receiving Wells	860,393	-	860,393
13	371	Pumping Equipment	1,858,411	(284,996)	1,573,415
14	374	Reuse Distribution Reservoirs	62,825	-	62,825
15	375	Reuse Trans. And Distrib. System	414,315	(73,638)	340,677
16	380	Treatment and Disposal Equipment	5,469,478	(63,432)	5,406,046
17	381	Plant Sewers	47,788	(178)	47,610
18	382	Outfall Sewer Lines	343,681	-	343,681
19	389	Other Plant and Miscellaneous Equipment	644,609	(41,454)	603,155
20	390	Office Furniture and Equipment	198,772	-	198,772
21	391	Transportation Equipment	26,078	-	26,078
22	392	Stores Equipment	8,968	-	8,968
23	393	Tools, Shop, and Garage Equipment	56,167	-	56,167
24	394	Laboratory Equipment	173,948	-	173,948
25	396	Communications Equipment	418,996	(4,850)	414,146
26	398	Other Tangible Plant	-	-	-
27					
28		TOTAL WASTEWATER PLANT	\$ 60,394,260	\$ (5,464,782)	\$ 54,929,478

LINE NO.	ACCT. NO.	ACCOUNT NAME	RUCO ADJ 9	RUCO ADJ 10	RUCO ADJ 11	RUCO ADJ 12	RUCO ADJ 13	RUCO ADJ 14	RUCO ADJ 15	RUCO ADJ 16	TOTAL PG 2 ADJ
1	351	Organization									\$ -
2	353	Land									-
3	354	Structures & Improvements		\$ 31,804	\$ 14,187	\$ 1,378	\$ 57,739	\$ 58,210	\$ (55,508)	\$ (40,684)	67,126
4	355	Power Generation									-
5	360	Collection Sewer Forced		11,360	7,843	268		154	(30,284)	(21,550)	(32,209)
6	361	Collection Sewers Gravity		51,113	135,919	78,415	102,212	36,779	(125,280)	(327,018)	(47,860)
7	362	Special Collecting Structures									-
8	363	Customer Services									-
9	364	Flow Measuring Devices			341		665	886		(753)	(412)
10	366	Reuse Services									1,551
11	367	Reuse Meters and Installation									-
12	370	Receiving Wells									-
13	371	Pumping Equipment		604	11,712	568	70	1,174	(1,300)	(25,638)	(46,697)
14	374	Reuse Distribution Reservoirs	\$ (33,887)								-
15	375	Reuse Trans. and Dist. System									-
16	380	Treatment & Disposal Equip.		1,063	872	4,522	11,615	111	(2,000)	(1,860)	14,323
17	381	Plant Sewers						222			222
18	382	Outfall Sewer Lines									-
19	389	Other Sewer Plant & Equip.									-
20	390	Office Furniture & Equipment									-
21	391	Transportation Equipment									-
22	392	Stores Equipment									-
23	393	Tools, Shop And Garage Equip									-
24	394	Laboratory Equip									-
25	396	Communication Equip									-
26	398	Other Tangible Plant									-
27											-
28											-
29											-
30											-
31	ADJ 9	Reclassify Repair invoice from Precision Electric during 2007 to Contractual Services - Other, and remove Precision repair invoice from 2007. The first invoice (\$14,691) is within the test year and includable in expense, while the second (\$19,196) is outside the test year, and not included in expense.									
32	ADJ 10	Reverse Company Adjustment for 2004 Affiliate Profit									
33	ADJ 11	Reverse Company Adjustment for 2005 Affiliate Profit									
34	ADJ 12	Reverse Company Adjustment for 2006 Affiliate Profit									
35	ADJ 13	Reverse Company Adjustment for 2007 Affiliate Profit									
36	ADJ 14	Reverse Company Adjustment for 2008 Affiliate Profit									
37	ADJ 15	Remove 2004 unsupported affiliate labor costs by estimated year related asset placed in service.									
38	ADJ 16	Remove 2005 unsupported affiliate labor costs by estimated year related asset placed in service.									
39											
TOTALS			\$ (33,887)	\$ 107,278	\$ 172,589	\$ 85,594	\$ 173,658	\$ 112,042	\$ (237,581)	\$ (421,253)	\$ (41,560)

LINE NO.	ACCT. NO.	ACCOUNT NAME	RUCO ADJ 17	RUCO ADJ 18	RUCO ADJ 19	RUCO ADJ 20	RUCO ADJ 21	TOTAL PG 3 ADJ	TOTAL ALL ADJS
1	351	Organization						\$ -	\$ -
2	353	Land						-	-
3	354	Structures & Improvements	\$ (7,035)		\$ (362,512)	\$ (3,500,000)	\$ (1,768)	(3,871,315)	(4,269,219)
4	355	Power Generation						-	5,004
5	360	Collection Sewer Forced	(131,238)		(1,200)			(132,438)	(164,647)
6	361	Collection Sewers Gravity	(162,996)	\$ (288,769)	(57,356)			(509,121)	(565,711)
7	362	Special Collecting Structures						-	-
8	363	Customer Services						-	-
9	364	Flow Measuring Devices						-	(412)
10	366	Reuse Services		(1,200)	(1,600)			(2,800)	(1,249)
11	367	Reuse Meters and Installation						-	-
12	370	Receiving Wells						-	-
13	371	Pumping Equipment	(1,200)	(200)	(2,813)			(4,213)	(284,996)
14	374	Reuse Distribution Reservoirs						-	-
15	375	Reuse Trans. and Dist. System			(73,638)			(73,638)	(73,638)
16	380	Treatment & Disposal Equip.	(8,756)	(30,549)	(200)			(39,505)	(63,432)
17	381	Plant Sewers			(400)			(400)	(178)
18	382	Outfall Sewer Lines						-	-
19	389	Other Sewer Plant & Equip.	(800)	(2,450)	(42,600)			(45,850)	(41,454)
20	390	Office Furniture & Equipment						-	-
21	391	Transportation Equipment						-	-
22	392	Stores Equipment						-	-
23	393	Tools, Shop And Garage Equip						-	-
24	394	Laboratory Equip						-	-
25	396	Communication Equip			(4,850)			(4,850)	(4,850)
26	398	Other Tangible Plant						-	-
27									
28		TOTALS	\$ (312,025)	\$ (323,168)	\$ (547,169)	\$ (3,500,000)	\$ (1,768)	\$ (4,684,130)	\$ (5,464,782)

ADJ 17 Remove 2006 unsupported affiliate labor costs by estimated year related asset placed in service.
 ADJ 18 Remove 2007 unsupported affiliate labor costs by estimated year related asset placed in service.
 ADJ 19 Remove 2008 unsupported affiliate labor costs by estimated year related asset placed in service.
 ADJ 20 Remove costs associated with correcting design deficiencies at the PVWRF at 50% of amount incurred and placed in service during the Test Year per direct testimony of Greg Sorensen at page 7.
 ADJ 21 Per Rebuttal Schedule B-2, Page 3, Adjustment D adds \$7,072 to account 354, yet this amount is not explained. RUCO makes an adjustment to remove the actual amount recorded to account 354 for rent in 2002.

OPERATING INCOME

LINE NO.	DESCRIPTION	(A) COMPANY AS FILED	(B) RUCO TEST YEAR ADJUSTMENTS	REF	(C) RUCO TEST YEAR AS ADJUSTED	(D) RUCO PROPOSED CHANGES	(E) RUCO AS RECOMM'D
1	Revenues						
2	Flat Rate Revenues	\$ 6,164,589			\$ 6,164,589	\$ 2,043,412	\$ 8,208,001
3	Measured Revenues	92,030	2,813	1	94,843	338,898	433,741
4	Other Wastewater Revenues	99,755			99,755		99,755
5					-		-
6	TOTAL OPERATING REVENUE	\$ 6,356,374	\$ 2,813		\$ 6,359,187	\$ 2,382,310	\$ 8,741,497
7							
8	Operating Expenses						
9	Salaries & Wages	\$ -			\$ -		\$ -
10	Purchased Wastewater Treatment	1,205			1,205		1,205
11	Sludge Removal Expense	267,554			267,554		267,554
12	Purchased Power	632,064	(406)	2/3	631,658		631,658
13	Fuel for Power Production	2,076	(425)	2	1,651		1,651
14	Chemicals	279,749	(12,089)	3	267,660		267,660
15	Materials and Supplies	75,579	(13,520)	8	62,059		62,059
16	Contractual Services	3,117			3,117		3,117
17	Contractual Services - Testing	33,348	(6,398)	5	26,951		26,951
18	Contractual Services - Other	2,716,000	(157,307)	4a-e	2,558,693		2,558,693
19	Contractual Services - Legal	24,084			24,084		24,084
20	Equipment Rental	78,309	(4,387)	7	73,922		73,922
21	Rents - Building	18,976			18,976		18,976
22	Transportation Expenses	69,551	(17,726)	6	51,825		51,825
23	Insurance - General Liability	32,133			32,133		32,133
24	Insurance - Vehicle	2,213			2,213		2,213
25	Regulatory Comm. Expense	19,133			19,133		19,133
26	Regulatory Comm, Exp. - Rate Case	70,000	(28,000)	14	42,000		42,000
27	Miscellaneous Expense	36,656	(6,409)	9	30,247		30,247
28	Bad Debt Expense	43,889	(40,848)	10	3,041		3,041
29	Depreciation & Amortization	1,550,237	(215,142)	11a-b	1,335,095		1,335,095
30	Taxes Other Than Income	-			-		-
31	Property Taxes	336,629	(81,924)	12	254,705	32,370	287,075
32	Income Tax	(99,906)	251,179	13	151,273	907,051	1,058,324
33					-		-
34							
35	TOTAL OPERATING EXPENSES	\$ 6,192,596	\$ (333,401)		\$ 5,859,195	\$ 939,421	\$ 6,798,615
36							
37	OPERATING INCOME (LOSS)	\$ 163,778	\$ 336,214		\$ 499,992	\$ 1,442,890	\$ 1,942,883

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 4b
TO CONTRACTUAL SERVICES - OTHER AND ADMINISTRATIVE ALLOCATION - AWS**

LINE NO.	GENERAL LEDGER ACCOUNT	VENDOR	DESCRIPTION	AMOUNT
1	Contractual Services-AWS	Algonquin Water Services	Recon fees to 4 factor	\$ -
2	Contractual Services-AWS	Algonquin Water Services	Recon fees to 4 factor	-
3	Admin Allocation-AWS	Algonquin Water Services	Recon fees to 4 factor	-
4				
5	Contractual Services-Other	Aerotek/AWS	Rebuttal Schedule C-1, Page 2.1	(42,200)
6				
7				
8			RUCO Adjustment To Remove Expenses	<u>\$ (42,200)</u>

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 4c
TO CONTRACTUAL SERVICES - OTHER**

LINE NO.	GENERAL LEDGER ACCOUNT	VENDOR	DESCRIPTION	AMOUNT
1	Central Office - Accounting/Administration	Algonquin Power Trust	GENERAL ACCTIN FEE - LPSCO	\$ (1,793)
2	Central Office - Human Resources	Algonquin Power Trust	GEN HR FEE- LPSCO	(6,138)
3	Central Office - Information Technology	Algonquin Power Trust	GEN IT FEE- LPSCO	(518)
4	Central Office - Operations	Algonquin Power Trust	GENERAL OPS	(764)
5	Central Office Fixed Overhead Costs	Algonquin Power Trust	MGMT FEE- LPSCO	(177,737)
6				
7			RUCO Adjustment To Remove Unnecessary/Inappropriate Expenses	<u>\$ (186,950)</u>

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 11a
TO DEPRECIATION EXPENSE**

LINE NO.	ACCT NO.	PLANT ACCOUNT	RUCO ORIGINAL COST	PROPOSED DEPR RATE	PROPOSED DEPR EXPENSE
1	351	Organization	\$ -		
2	353	Land	1,783,426		
3	354	Structures & Improvements	15,050,202	3.33%	501,172
4	355	Power Generation	548,674	5.00%	27,434
5	360	Collection Sewer Forced	996,458	2.00%	19,929
6	361	Collection Sewers Gravity	22,547,680	2.00%	450,954
7	362	Special Collecting Structures	-	2.00%	-
8	363	Customer Services	-	2.00%	-
9	364	Flow Measuring Devices	46,607	10.00%	4,661
10	366	Reuse Services	3,788,219	2.00%	75,764
11	367	Reuse Meters and Installation	52,331	8.33%	4,359
12	370	Receiving Wells	860,393	3.33%	28,651
13	371	Pumping Equipment	1,573,415	12.50%	196,677
14	374	Reuse Distribution Reservoirs	62,825	2.50%	1,571
15	375	Reuse Trans. and Dist. System	340,677	2.50%	8,517
16	380	Treatment & Disposal Equip.	5,406,046	5.00%	270,302
17	381	Plant Sewers	47,610	5.00%	2,381
18	382	Outfall Sewer Lines	343,681	3.33%	11,445
19	389	Other Sewer Plant & Equip.	603,155	6.67%	40,230
20	390	Office Furniture & Equipment	198,772	6.67%	13,258
21	391	Transportation Equipment	26,078	20.00%	5,216
22	392	Stores Equipment	8,968	4.00%	359
23	393	Tools, Shop And Garage Equip	56,167	5.00%	2,808
24	394	Laboratory Equip	173,948	10.00%	17,395
25	396	Communication Equip	414,146	10.00%	41,415
26	398	Other Tangible Plant	-		-
27					-
28		TOTALS	\$ 54,929,478		\$ 1,724,496
29					
30					
31		Less Amortization of Contributions per Company C-2, Page 2			\$ (374,743)
32					
33		Total Proposed Depreciation Expense Per RUCO			\$ 1,349,753
34					
35		Total Proposed Depreciation Expense Per Company			\$ 1,550,237
36					
37		Net Decrease to Depreciation Expense			\$ (200,484)
38					
39					
40		RUCO Adjustment To Plant Depreciation Expense			\$ (200,484)

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 11b
TO DEPRECIATION EXPENSE**

LINE NO.	DESCRIPTION	REFERENCE	TOTAL
1	Total Amortization of Debt Discount Per RUCO		\$ -
2			
3	Test Year Adjusted Amortization of Debt Discount As Filed		\$ 14,658
4			
5	RUCO Adjustment To Amortization of Debt Discount		<u>\$ (14,658)</u>
6			
7	TOTAL RUCO ADJUSTMENT TO DEPRECIATION EXPENSE		<u><u>\$ (14,658)</u></u>

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 12
 TO PROPERTY TAX**

LINE NO.	DESCRIPTION	REFERENCE	(A)	(B)
1	Calculation Of The Company's Full Cash Value:			
2				
3	Annual Operating Revenues:			
4	Year Ended 09/30/2008		\$ 6,359,187	
5	Year Ended 09/30/2008		6,359,187	
6	Proposed Revenue		8,741,497	
7	Total Three Year Operating Revenues	Sum of Lines 4, 5, & 6	\$ 21,459,871	
8	Average Annual Operating Revenues	Line 7 / 3	\$ 7,153,290	
9				
10	Two Times Three Year Average Operating Revenues	Line 8 X 2		\$ 14,306,580
11				
12	ADD:			
13	10% of construction Work In Progress ("CWIP"):			
14	Test Year CWIP	Co. Sch E-1, Line 4	\$ 393,011	
15	10% of CWIP	Line 14 X 10%		\$ 39,301
16				
17	SUBTRACT:			
18	Transportation at Book Value:			
19	Original Cost of Transportation Equipment		26,078	
20	Accum. Depr. Of Transportation Equipment		(10,496)	
21	Book Value of Transportation Equipment	Line 19 + Line 20		\$ 15,582
22				
23	Company's Full Cash Value ("FCV")	Sum of Lines 10, 15, & 21		\$ 14,361,464
24				
25	Calculation Of The Company's Tax Liability:			
26				
27	MULTIPLY:			
28	FCV X Valuation Assessment Ratio X Property Tax Rates:			
29	Assessment Ratio	House Bill 2779	21.0000%	
30	Assessed Value	Line 23 X 29	\$ 3,015,907	
31				
32	Property Tax Rates:			
33	Composite Tax Rate (Per Company)	Rebuttal Schedule C-2, Page 3	9.5187%	
34				
35	Estimated Tax Rate Liability		9.5187%	
36				
37	Company's Total Tax Liability - Based on Full Cash Value	Line 30 X Line 35		\$ 287,075
38				
39	RUCO Adjusted Test Year Property Tax Expense			254,705
40	Decrease in Property Tax Expense	Line 37 - Line 39		\$ 32,370
41				
42				
	TOTAL RUCO ADJUSTMENT TO PROPERTY TAXES			\$ 32,370

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 13
TO TEST YEAR INCOME TAX EXPENSE**

LINE NO.	DESCRIPTION	(A) REFERENCE	(B) AMOUNT
1	FEDERAL INCOME TAXES:		
2			
3	Operating Income Before Taxes	Sch 4, Page 1, Col C, Lines 32 + 37	\$ 651,266
4	Less:		
5	Arizona State Tax	Line 21	\$ (27,308)
6	Interest Expense	Note (A), Line 35	(259,354)
7	Federal Taxable Income	Line 3 + Line 5 + Line 6	\$ 364,603
8			
9	Federal Tax Rate	Schedule 1, Page 2	34.0000%
10	Federal Income Tax Expense	Line 7 X Line 9	\$ <u>123,965</u>
11			
12	STATE INCOME TAXES:		
13			
14	Operating Income Before Taxes	Sch 4, Page 1, Col C, Lines 32 + 37	\$ 651,266
15	LESS:		
16	Interest Expense	Note (A), Line 35	(259,354)
17	State Taxable Income	Line 14 + Line 16	\$ 391,911
18			
19	State Tax Rate	Tax Rate	6.9680%
20			
21	State Income Expense	Line 17 X Line 19	\$ <u>27,308</u>
22			
23	TOTAL TEST YEAR INCOME TAX EXPENSE:		
24	Federal Income Tax Expense	Line 10	\$ 123,965
25	State Income Tax Expense	Line 21	27,308
26	Total Income Tax Expense Per RUCO	Line 24 + Line 25	\$ 151,273
27	Total Income Tax Expense Per Company Company Sch C-1		(99,906)
28	Total RUCO Income Tax Adjustment	Line 26 - Line 27	<u>\$ 251,179</u>
29			
30			
31	<i>NOTE (A)</i>		
32	Interest Synchronization:		
33	Adjusted Rate Base	\$ 22,750,383	
34	Weighted Avg. Cost of Debt	1.14%	
35	Synchronized Interest Expense (L33 X L34)	\$ 259,354	

Wastewater Revenue Summary and Proposed Rates

	Company Present Rates	RUCO Proposed Rates	Increase/ (Decrease) Amount	Increase/ (Decrease) Percent	RUCO PROPOSED	
					MONTHLY RATE	RATE PER THOUSAND
Revenue By Class						
Residential	\$ 4,610,726	\$ 6,061,749	\$ 1,451,023	31.47%	\$	35.76
Residential HOA 135	44,064	57,931	13,867	31.47%		35.76
Residential HOA 160	52,224	68,659	16,435	31.47%		35.76
Residential HOA 520	169,728	223,142	53,414	31.47%		35.76
Subtotal Residential	\$ 4,876,742	\$ 6,411,482	\$ 1,534,740	31.47%		
Multi-Unit 3	\$ 9,923	\$ 13,048	\$ 3,125	31.49%	\$	33.20
Multi-Unit 5	3,156	4,150	994	31.50%		33.20
Multi-Unit 6	1,818	2,390	572	31.49%		33.20
Multi-Unit 7	8,484	11,155	2,671	31.49%		33.20
Multi-Unit 8	75,144	98,803	23,659	31.49%		33.20
Multi-Unit 9	2,727	3,586	859	31.49%		33.20
Multi-Unit 14	46,662	61,354	14,692	31.49%		33.20
Multi-Unit 16	116,352	152,986	36,634	31.49%		33.20
Multi-Unit 17	5,151	6,773	1,622	31.49%		33.20
Multi-Unit 18	5,454	7,171	1,717	31.49%		33.20
Multi-Unit 24	7,272	9,562	2,290	31.49%		33.20
Multi-Unit 46	13,938	18,326	4,388	31.49%		33.20
Multi-Unit 84	25,452	33,466	8,014	31.49%		33.20
Multi-Unit 90	27,270	35,856	8,586	31.49%		33.20
Multi-Unit 132	79,992	105,178	25,186	31.49%		33.20
Multi-Unit 304	92,112	121,114	29,002	31.49%		33.20
Subtotal Multi-Unit	\$ 520,907	\$ 684,916	\$ 164,009	31.49%		
Small Commercial	\$ 84,456	\$ 111,060	\$ 26,604	31.50%	\$	60.49
Measured Regular Domestic Service	\$ 277,822	\$ 366,272	\$ 88,450	31.84%	\$	33.50 \$ 2.6800
Msrd Restrnt, Motels, Groc, Dry Clean	234,293	308,516	74,223	31.68%		33.50 4.0232
Subtotal Measured Service	\$ 512,115	\$ 674,788	\$ 162,673	31.76%		
Wigwam Resort - Per Room	\$ 103,929	\$ 136,651	\$ 32,722	31.49%	\$	33.20
Wigwam Resort - Main	12,000	15,780	3,780	31.50%		1,315.00
Subtotal Wigwam	\$ 115,929	\$ 152,431	\$ 36,502	31.49%		
Elementary Schools	\$ 32,640	\$ 42,922	\$ 10,282	31.50%	\$	894.20
Middle and High Schools	28,800	37,872	9,072	31.50%		1,052.00
Community College	14,880	19,567	4,687	31.50%		1,630.60
Subtotal Educational Facilities	\$ 76,320	\$ 100,361	\$ 24,041	31.50%		
Effluent @ \$0.1688/thousand	\$ 50,842	\$ 448,604	\$ 397,763	782.35%		\$ 1.50
Effluent @ \$0.6905/thousand	44,331	80,310	35,979	81.16%		1.50
Subtotal Effluent Sales	\$ 95,173	\$ 528,914	\$ 433,741	455.74%		
Total Revenue	\$ 6,281,642	\$ 8,663,952	\$ 2,382,310	37.92%		

SONN S. ROWELL, CPA
SURREBUTTAL EXHIBIT 3
LPSCO FAQ's

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Frequently Asked Questions

What are Liberty Water's business hours?

Where is Liberty Water located?

What is Liberty Water's phone number?

If I have an emergency in the evening or weekend where do I call?

How do I sign up for service?

When is my bill due?

Where do I go to pay my bill?

Will I be charged a late fee if my payment doesn't get to you on the due date?

How long does it take to process a payment?

Why does it take so long for my payment to be posted when I pay by On-Line Banking?

How can I pay my bill?

How does your Surepay program work?

How do I sign up for Surepay?

How can I stop a Surepay payment if I believe my bill is incorrect?

Do you have a payment drop box?

Where do I report water leaks?

How long will it take for someone to respond to a water leak?

What is Arizona Bluestake?

What should I do if there are bees in my water meter box?

Do you estimate the usage on my bill?

How can I tell if my bill is estimated?

How can I help prevent an estimated bill?

Can I turn off my own water service?

There's no shut off valve on my side of the meter and I need to have the water turned off for a plumbing repair.

What are Liberty Water's business hours?

Monday through Friday 7:30am to 4:30pm.

[TOP](#)

Where is Liberty Water located?

The business office is located at 12725 West Indian School Road, Suite D101, Avondale, Arizona 85392.

[TOP](#)

What is Liberty Water's phone number?

During regular business hours you can contact us at 623-935-9367.

[TOP](#)

If I have an emergency in the evening or weekend where do I call?

For emergencies that occur after business hours or on a weekend or holiday, please contact 623-935-3395.

[TOP](#)

How do I sign up for service?

An application must be completed at least two business days before service is desired. You may apply in person or contact the office at 623-935-9367 to request an application to be sent by mail, fax, or email.

[TOP](#)

When is my bill due?

Water bills are due upon rendering and delinquent 15 days after.

[TOP](#)

Where do I go to pay my bill?

Payments in the form of a check or money order can be mailed or delivered in person to the address below:

*12725 W Indian School Road, Suite D101
Avondale, AZ 85323*

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Will I be charged a late fee if my payment doesn't get to you on the due date?

A 1.5% late fee will be assessed on the unpaid balance.

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How long does it take to process a payment?

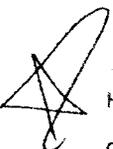
Payments are usually processed within 24 hours of receipt at our office. Since postal deliveries vary, please allow sufficient time for your payment to reach us. Mailing your payment at least 5 days before the due date is recommended.

[TOP](#)

Why does it take so long for my payment to be posted when I pay by On-Line Banking?

When you pay by "On-Line" banking the bank sends your payment to us via a check in the mail. This process takes a few days and may cause payments to arrive late at our facility. Please check with your on-line banking company to determine the amount of time you will need to allow for on time payments.

[TOP](#)



How can I pay my bill?

Checks or money orders can be mailed or dropped off at our business office. An envelope is included with your statement for convenience. Cash payments are accepted at the business office. Payments can also be made electronically through our Surepay program.

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