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BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF PIMA UTILITY 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-02199A-11-0329
IN THE MATTER OF THE APPLICATION OF PIMA UTILITY 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-02199A-11-0330 **NOTICE OF FILING REBUTTAL TESTIMONY**

Pima Utility Company hereby submits this Notice of Filing Rebuttal Testimony in the above-referenced matter. Specifically filed herewith are Rebuttal Testimony of the following:

1. Steven Soriano;
2. Ray L. Jones, P.E.;
3. Marc L. Spitzer;
4. Thomas J. Bourassa (Rate Base); and
5. Thomas J. Bourassa (Cost of Capital).

Arizona Corporation Commission
DOCKETED
APR 27 2012
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RESPECTFULLY SUBMITTED this 27th day of April, 2012.

FENNEMORE CRAIG, P.C.

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REBUTTAL TESTIMONY OF

STEVEN SORIANO

April 27, 2012

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I. INTRODUCTION AND PURPOSE OF TESTIMONY

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Steven Soriano. My business address is 9532 E. Riggs Road, Sun Lakes, Arizona 85248.

Q. ARE YOU THE SAME STEVEN SORIANO THAT FILED DIRECT TESTIMONY IN THIS CONSOLIDATED DOCKET?

A. Yes.

Q. HAS ANYTHING CHANGED WITH RESPECT TO YOUR EMPLOYMENT OR RESPONSIBILITIES?

A. No, I am still employed by Robson Communities, Inc. and I am still responsible for overseeing Pima Utility Company's ("Pima" or the "Company") day-to-day operations.

Q. WHAT TOPICS WILL YOU ADDRESS IN THIS REBUTTAL TESTIMONY?

A. First, I will provide an update of the Company's debt financing. Second, I will address the issues of rate case expense and recovery of income taxes. My discussion of income tax recovery will explain the history of the Company's corporate structure and explain why the S corporation approach was utilized. Finally, I will address Mr. Robson's compensation.

II. DEBT FINANCING

Q. THE COMMISSION RECENTLY ISSUED DECISION NO. 73078 (APRIL 5, 2012) AUTHORIZING THE COMPANY TO INCUR UP TO $8.37 MILLION OF NEW DEBT. WHAT IS THE STATUS OF THAT FINANCING?

A. As of April 25, we have received credit approval from Wells Fargo Bank for the loan. We have also received and are in the process of reviewing the first draft of a

credit agreement and related loan documents from the bank. Once the credit agreement is finished, there is a requirement on the existing outstanding bonds to provide at least 45 days notice before we can prepay the outstanding balance. So my best estimate based on what I know today is that we are somewhere between 60 and 90 days from closing the loan.

Q. DO YOU KNOW THE FINAL INTEREST RATE?

A. Not precisely. However, we believe it will be around 4.25 percent and Mr. Bourassa has used that number in his updated cost of capital testimony.[1] This is noticeably lower than the maximum 5.5 percent authorized by the Commission.

Q. HOW WAS THE COMPANY ABLE TO SECURE SUCH A LOW RATE?

A. Interest rates are at historic lows so it was a good time for us to undertake this financing. In addition, we worked with lenders who are interested in doing business with us because we are part of the Robson family of companies. Although interest rates are very low, lenders are now a lot more risk averse than they were before the 2008 financial crises. Mr. Robson and his companies have been doing business in Arizona for more than 40 years and lenders are ready to make loans to creditworthy borrowers like us. As a result, we were able to significantly lower our cost of debt. That's good for Pima and our customers.

III. RATE CASE EXPENSE

Q. BOTH STAFF AND RUCO TESTIFY THAT THE LENGTH OF TIME BETWEEN RATE CASES FOR PIMA JUSTIFIES LONGER AMORTIZATION PERIODS. HOW DO YOU RESPOND?

A. The past is not necessarily indicative of the future. It will not be another 10 years until Pima is in again for rates. For one thing, we are building new plant with the

[1] Rebuttal Testimony of Thomas J. Bourassa – Cost of Capital at 5:12 – 6:11.

debt funds and that plant will need to go into rate base. And even if plant investment and increases in operating expenses like labor and power don't bring us in, we will have to refinance the current debt in 5 years. So I just don't see any possibility that the interval between rate cases for Pima will be more than 5 years.

Q. WHAT ABOUT RUCO'S ASSERTION THAT IT IS "LIKELY" THAT THE COMPANY WON'T NEED RATE INCREASES FOR ANOTHER 15-20 YEARS BECAUSE ITS SERVICE AREA IS BUILT OUT?

A. Actually Mr. Mease has it backwards.[2] As I pointed out in my direct testimony, steady growth once allowed us to absorb increased operating expenses.[3] I further explained that at the time of the prior rate cases, much of the plant was new, meaning we were not spending substantial sums on infrastructure.[4] Now, however, our systems are aging, and upgrades and replacements, like those for which we just received approval to finance, are going to become more frequent. These factors make it very "likely" we will be in sometime in the next 3-5 years for new rates.

Q. FAIR ENOUGH MR. SORIANO. BUT WHY NOT JUST AGREE TO STAFF'S 5-YEAR AMORTIZATION?

A. Because I understand that if we were to come in earlier, Staff and RUCO would take the position that we forfeit any unrecovered rate case expense.[5] I may be new to rate cases but that doesn't seem fair to me. Staff and RUCO wish to stretch out the recovery period to reduce the impact on rates and then penalize the Company if we come in earlier than estimated.

Q. WHAT DOES THE COMPANY RECOMMEND?

A. As explained in Mr. Bourassa's rebuttal, we will accept Staff's 5-year period to

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[2] Direct Testimony of Robert B. Mease at 19:1-5.
[3] Direct Testimony of Steven Soriano ("Soriano Dt.") at 5:6-10.
[4] Soriano Dt. at 5:10-20.
[5] Rebuttal Testimony of Thomas J. Bourassa – Rate Base ("Bourassa Rb.") at 13.

determine the annual amount of rate case expense.[6] However, we also are adopting RUCO's recommendation that a surcharge be used to recover rate case expense.

Q. WHY DO YOU BELIEVE A SURCHARGE IS APPROPRIATE?

A. Again, I am new to this but it makes sense to me to use a mechanism that allows us to recover this necessary but isolated expense, no more and no less.

Q. BUT WON'T YOU HAVE THE SAME ISSUE IF YOU COME IN BEFORE THE 5-YEAR RECOVERY PERIOD ENDS?

A. I don't see why. Using the approach set forth by Mr. Bourassa, we will be able to determine exactly how much of the authorized rate case expense remains to be recovered.[7] I see no reason why we would not be allowed to continue recovery of that amount until it has been collected. Pima is incurring rate case expense now and is not going to recovery anything for the time value of its money as it waits to recover the expense. It just seems to me that a surcharge works for everyone because we recover just what we are supposed to recover, no matter when we file for rates again.

IV. RECOVERY OF INCOME TAXES

Q. BOTH STAFF AND RUCO CITE "LONG-STANDING" COMMISSION "POLICY" AGAINST ALLOWING AN S CORPORATION TO RECOVER INCOME TAXES AS PART OF ITS COST OF SERVICE. WAS THE COMPANY AWARE OF THIS "POLICY" WHEN IT REQUESTED RECOVERY OF INCOME TAXES IN THIS CASE?

A. We were aware that the Commission has generally denied recovery of income taxes to S corporations as part of the cost of service. I now understand that started with the decision involving Consolidated Water Utilities in the late 1980s. Before

[6] Bourassa Rb. at 15:12-13.

[7] Bourassa Rb. at 15.

that, it does appear that utilities were allowed to recover income taxes even if they were set up as "pass-through" entities.[8]

Q. WHAT DO YOU MEAN BY "PASS-THROUGH ENTITIES"?

A. Entities that incur tax liability but do not pay taxes themselves like LLCs, partnerships and S corporations. Instead, the obligation to pay the taxes lands at the ownership level.

Q. WHAT ROLE WILL YOU BE TAKING IN ADDRESSING THE INCOME TAX ISSUE?

A. I am neither a lawyer nor a tax expert, so Pima has retained another expert witness, a tax lawyer and former Arizona Corporation Commissioner and Federal Energy Regulatory Commissioner, Marc Spitzer. Mr. Spitzer will file rebuttal testimony that, along with Mr. Bourassa's rebuttal, addresses what I will call the legal, accounting and ratemaking aspects of this issue. I see my role to provide what I will describe as the corporate and regulatory background as it relates to Pima's request.

Q. OKAY. WHEN WAS PIMA FORMED?

A. 1972.

Q. AND IT WAS FORMED AS AN S CORPORATION?

A. Correct.

Q. DO YOU KNOW WHY IT WAS FORMED AS AN S CORPORATION?

A. Not specifically. But there appear to be good financial reasons for such an election because a pass-through entity generally improves the ability of a startup utility to raise capital from the stockholders.[9]

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[8] *See* Rebuttal Testimony of Marc L. Spitzer ("Spitzer Rb.") at 5 – 6.

[9] Spitzer Rb. at 5.

Q. BECOMING AN S CORPORATION WAS A VOLUNTARY DECISION?

A. I think we can assume that to be the case.

Q. PIMA CAN ELECT TO CONVERT TO A C CORPORATION?

A. Yes, that is my understanding as well.

Q. AND AS A C CORPORATION THERE WOULD BE NO DISPUTE OVER RECOVERING INCOME TAXES AS PART OF THE COST OF SERVICE?

A. Yes, I think that is very clear from the testimony of those opposed to recovery of this on this issue.[10]

Q. THEN MR. SORIANO, WHY DON'T YOU JUST CONVERT TO A C CORPORATION AND AVOID THIS DISPUTE?

A. For one thing, changing the status of an existing corporation can have impacts to the corporation and its shareholders that need to be fully understood prior to making a change. Pima has looked into but not fully evaluated the potential impacts of such a change. We are also mindful that converting to a C corporation will result in higher income tax rates on Pima's income and thereafter higher rates for our customers. As such, we felt it was reasonable to first request recovery of income taxes in the manner we have done in this rate case.

Q. WHY WOULD RATES FOR A C CORPORATION BE HIGHER THAN THE RATES FOR AN S CORPORATION?

A. Because a C corporation will be taxed at a 41.5 percent effective rate while we are using about a 28 percent effective tax rate. Mr. Bourassa explains this in detail in his testimony.[11] But as I see it, customers get lower rates when utilities use pass-through entities because the owners have lower tax rates than the entity would.

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[10] *E.g.*, Direct Testimony of William A. Rigsby at 6:26 – 7:2; Direct testimony of Crystal Brown at 25 – 27.

[11] Direct Testimony of Thomas J. Bourassa – Rate Base at 18:6-10.

Assuming, of course, the pass-through entities are allowed to recover income taxes in the first place.

Q. BUT AREN'T YOU ASKING FOR THE RATEPAYERS TO PAY AN EXPENSE OF YOUR SHAREHOLDERS?

A. No. That is how Staff and RUCO would like this to be viewed but I disagree.

Q. OKAY, THEN HOW WOULD YOU CHARACTERIZE THE COMPANY'S REQUEST?

A. As a request to recover a readily identifiable cost that would not exist but for our provision of water and wastewater utility service to our customers. Although the responsibility to pay the tax flows through to each shareholder, the expense is as real as property taxes, depreciation, salaries or any other utility operating expense.[12]

Q. HAVE YOU FORMED AN OPINION AS TO WHY THE OTHER PARTIES OPPOSE THE RECOVERY OF INCOME TAXES BY A PASS-THROUGH ENTITY?

A. Actually it seems pretty obvious—the Commission's current policy allows customers to get a lower cost of service and neither party wants to take that windfall away from them.

Q. DO YOU REALLY THINK IT IS FAIR TO CALL IT A WINDFALL, MR. SORIANO?

A. Absolutely. From where we sit, our customers get to pay less because of a non-utility decision that was made 40 years ago, did not harm them then, does not harm them now, and which cannot be easily rectified. This does not appear to have anything to do with how we provide service or what it costs.

[12] Spitzer Rb. at 7:3-10.

Q. STILL, YOU RECOGNIZE THAT THE COMMISSION HAS RECENTLY REJECTED SIMILAR REQUESTS BY OTHER WATER AND SEWER UTILITIES?

A. Most definitely. We are fully aware that we are asking this Commission to take another look at this issue. We don't do so lightly. But we are also aware this is an important policy issue that the Commission recently has made clear warrants additional consideration. So we are respectfully asking the Commission to take another look at this issue in this case. We understand we have the burden to support our request and to expand the record on this issue. That's why we have hired Mr. Spitzer as an expert witness. Very simply, we hope to show the Commission on why it is no longer fair to provide customers of pass-through entities with discounted rates.

V. <u>SALARIES AND WAGES</u>

Q. PIMA IS REJECTING BOTH STAFF'S AND RUCO'S RECOMMENDED SALARY LEVEL FOR MR. ROBSON AND PROPOSING ONE OF ITS OWN. WHY DO YOU BELIEVE THE COMPANY'S REQUESTED SALARY LEVEL IS APPROPRIATE?

A. Mr. Robson is the Chairman of Pima. He is ultimately responsible for the operations, planning, financing, and strategic direction of the entire Company. He sets the policies and direction for the Company and I am responsible for its implementation. He is involved in decisions on staffing levels, infrastructure improvements, borrowing and distributions.

Q. WHAT ABOUT THE LOW NUMBER OF HOURS CITED BY STAFF AND RUCO?

A. Earlier in this rate case we provided a schedule that indicated the number of hours recorded in the payroll system for each employee. The hours recorded for

Mr. Robson does not accurately reflect the hours he spent on Pima.

Q. DO YOU KNOW HOW MANY HOURS HE WORKED DURING THE TEST YEAR?

A. No. Mr. Robson does not keep hourly timesheets. He is in charge of a water and sewer utility with 20,000 customers. He is available and often called upon on days, evenings and weekends to make decisions regarding Pima. We have proposed a salary we believe is reasonable for the value he adds.

Q. HOW DID YOU ARRIVE AT THE SALARY NOW INCLUDED IN THE COMPANY'S REBUTTAL FILING?

A. A salary for Mr. Robson was approved in the last rate case. His role and involvement in Pima's operations has not changed. So, we simply indexed the salary approved in the last rate case to reflect inflation and the increase in customers at Pima. We hope the other parties will see this as a reasonable middle ground.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

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REBUTTAL TESTIMONY OF

RAY L. JONES, P.E.

April 27, 2012

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I. INTRODUCTION AND PURPOSE OF TESTIMONY

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Ray L. Jones, P.E. My business address is 25213 N. 49th Drive, Phoenix, Arizona 85083.

Q. ARE YOU THE SAME RAY L. JONES THAT FILED DIRECT TESTIMONY IN THIS CONSOLIDATED DOCKET?

A. Yes.

Q. HAS ANYTHING CHANGED WITH RESPECT TO YOUR EMPLOYMENT OR RESPONSIBILITIES?

A. No, I am still owner and principal of ARICOR Water Solutions LC, and I am testifying on behalf of the Applicant Pima Utility Company ("Pima" or the "Company").

Q. HAVE YOU REVIEWED THE DIRECT FILINGS MADE BY STAFF AND RUCO?

A. Yes.

Q. WHAT WILL YOU ADDRESS IN THIS REBUTTAL TESTIMONY?

A. My rebuttal testimony is limited to addressing two Staff recommendations made in the Direct Testimony of Marlin Scott, Jr. First, I will address the conclusion that Pima's 2.4 million gallon per day ("MGD") Water Reclamation Facility ("WRF") has excess capacity and the related recommendation that the cost of the Phase II WRF be excluded from Pima's rate base. Second, I will address the recommendation that the Company adopt at least seven Best Management Practices ("BMPs") in the form of tariffs that substantially conform to the templates created by Staff.

II. WATER RECLAMATION FACILITY (WRF)

Q. WHAT ADJUSTMENTS DID STAFF MAKE IN THEIR DIRECT TESTIMONY RELATED TO WRF CAPACITY?

A. Staff removed the Phase II WRF project at a cost of $598,468 from plant in service and reduced accumulated depreciation in the amount of $356,088[1] to reflect accumulated depreciation on the Phase II WRF project.[2]

Q. IS THERE A TECHNICAL PROBLEM WITH THIS ADJUSTMENT?

A. Unfortunately yes. Due to my oversight, Pima's response to Staff Data Request CSB 5.16 contained a typographical error misstating the cost of the Phase II WRF. The cost of the Phase II WRF project was actually $595,468 not $598,468. Accordingly, Staff's adjustment, which I disagree with for the reasons explained below, should be a $595,468 reduction to plant in service and a reduction to accumulated depreciation of $354,303.

Q. OKAY. WHY DO YOU DISAGREE WITH STAFF'S POSITION?

A. Because the Phase II WRF project is an integral part of the WRF, all of which is in service and used and useful in the provision of wastewater treatment by Pima. Furthermore, the design, sizing and phasing of the Pima WRF, including the Phase II WRF project, was a reasonable and prudent decision based on sound engineering analysis that considered all relevant information available at the time the decision was made. Accordingly, the full cost of the Phase II WRF should be allowed in rate base.

Q. HOW DID STAFF EVALUATE CAPACITY AT THE WRF?

A. Staff made their evaluation based on the test year peak day flow. Specifically, they used the test year peak day flow of 1.438 million gallons per day (MGD) to

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[1] Staff Wastewater Division Schedule CSB-6.

[2] Direct Testimony of Crystal Brown at 12:14-16; Staff Wastewater Division Schedule CSB-4.

establish a peak day flow per service lateral of 143 gallons per day (gpd). Staff then divided the 2.4 MGD rated peak day capacity of the WRF by 143 gpd to determine that the WRF could serve up to approximately 16,780 service laterals.[3]

Q. DO YOU AGREE WITH STAFF'S EVALUATION OF WRF CAPACITY?

A. No. Staff's takes data from a point in time, in this case the 2010 test year, and extrapolates that data to draw a conclusion regarding the level of usage and ultimate capacity of the WRF. This approach is typically used for growing systems where the goal is to allocate capacity between existing and future customers. In this case, however, the wastewater system is essentially built-out. Therefore, Staff should have evaluated the Phase II WRF expansion, which was designed, sized and constructed in the mid-1990s, based on the information available to Pima at the time, to determine if the capacity provided is appropriate for Pima's customer base.

Q. IS THE AMOUNT OF CAPACITY APPROPRIATE FOR THE CUSTOMER BASE?

A. Yes. My evaluation, which encompassed a broad and comprehensive look at the totality of the factors and conditions impacting the design and flows at the WRF over time, indicates that the capacity provided is appropriate. My evaluation began with examining the process used by Pima in 1994 to design and size the WRF to determine if it was an appropriate process. I began by researching Commission Docket Nos. W-02199A-94-0439[4] and SW-02199A-98-0578.[5] These were the Commission cases that approved financing for the WRF and authorized inclusion of the cost of the Phase I WRF into Pima's rate base.

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[3] Direct Testimony of Marlin Scott, Jr. at Exhibit MSJ:18.

[4] Application of Pima Utility Company for Order Authorizing Financing and Related Transactions and Approving Accounting Orders (filed December 15, 1994).

[5] Application of Pima Utility Company for a Permanent Increase in Its Sewer Rates (filed August 27, 1998).

Q. WHAT DID YOU DISCOVER FROM YOUR REVIEW OF THESE DOCKETS?

A. I discovered that Pima went through an extremely rigorous design and evaluation process before constructing the WRF. Due to changes in environmental regulations in Arizona, Pima was forced to replace its then existing WRF with a new facility capable of meeting the requirements of the new regulations. Pima retained two professional engineering firms and an operational consultant to assist with design and operational planning for the new WRF. Carollo Engineers were the principal designers of the facility, with Goldman & Associates providing substantial assistance regarding sizing and phasing of the facility. Mr. Paul Hendricks, of EUSI, provided operational evaluation and budgeting support. The reports produced by these firms were included with Pima's financing application submitted in 1994 and are attached as Exhibit RLJ-RB1. In addition to commissioning these professional reports, Pima conducted extensive value engineering and aggressive project management techniques that resulted in significant savings on the construction of the WRF. Construction on the Phase I WRF began in 1995 and was completed in 1996. Construction of the Phase II WRF began in 1997 and was completed in 1998.

Q. WHAT DID STAFF SAY AT THE TIME, IF ANYTHING?

A. In the 1994 financing case, engineering Staff witness Marlin Scott, Jr. testified that "Based upon permit and environmental requirements, the proposed wastewater treatment processes seem appropriate, cost effective and reflect sound engineering judgment." And in the 1998 rate case, engineering Staff witness Lyndon R. Hammond testified to a "final overall facility cost of 3.83 $/gal...when typical costs for advanced wastewater treatment plants are 4 to 6 $/gal."

Q. DID YOU ALSO ANALYZE THE BASIS OF DESIGN FOR PIMA'S WRF?

A. Yes, I reviewed the engineering reports prepared by Carollo Engineers and Goldman & Associates and documented the basis of design and conducted analysis to determine if the basis of design was appropriate. I determined that the design of the Pima WRF is based on an annual average day of 128 gallons per residential dwelling unit per day (gpdupd). My full analysis is attached as Exhibit RLJ-RB2. As noted in the analysis, my conclusions are as follows:

- The residential unit flow design factor of 128 gpdupd and associated peaking factors were appropriate design factors to use the age-restricted Sun Lakes community based on information available in 1994.
- Commercial flows were appropriately estimated at approximately 10% of residential flows.

Q. WHAT WAS THE NEXT STEP IN YOUR EVALUATION OF PIMA WRF CAPACITY?

A. I attempted to identify changes that may have occurred since the design of the Pima WRF in 1994 that could impact flows today. The results of my investigation are presented on Exhibit RLJ-RB3. First, I reviewed the actual build-out of the Pima wastewater service area to see how it differed from projections used in 1994. In 1994, the Pima wastewater service was projected to build-out at 11,237 residential units in approximately 2002. The actual build-out was reasonably accurate with respect to total residential units but occurred somewhat slower than projected. The Sun Lakes development, representing about 98% of the residential units in Pima's wastewater service area, reached build-out in 2007 or 2008.[6] This means that the build-out was within 5% of the 1994 projection.

[6] A small amount of single family residential units and some commercial/multi-family infill remain to be developed in the Pima wastewater service area.

Q. WERE YOU ABLE TO DISCERN A REASON FOR THE LOWER BUILD-OUT?

A. Yes. The decline in the number of build-out units can be attributed to planned multi-family units being replaced by single family homes during the build-out of Sun Lakes.

Q. THANK YOU. PLEASE CONTINUE WITH THE DISCUSSION OF YOUR ANALYSIS OF CHANGES SINCE 1994.

A. Next, I reviewed census data to ascertain if demographic changes might have occurred that could impact wastewater flows. As detailed on Exhibit RLJ-RB3, several significant demographic shifts have occurred in the Sun Lakes CDP that could affect wastewater flows.[7] For instance, between the 2000 census and 2010 census, housing units increased by 34.8% while population increased by only 20.6%. The census data indicates that this disparity is the result of a 70.3% increase in vacant units in Sun Lakes and a 4.8% decrease in persons per occupied housing unit in Sun Lakes.

Q. DO YOU BELIEVE THE DESIGN ENGINEERS SHOULD HAVE PREDICTED THESE CHANGES AND ACCOUNTED FOR THEM IN THE DESIGN OF THE PIMA WRF?

A. No. The small amount of variance in unit counts indicates that the unit count projections used in 1994 were reasonably accurate and appropriate for design purposes. These demographic shifts noted in the census data could not have been accurately predicted by design engineers in 1994 and are likely to continue changing over time, possibly back to lower vacancies and higher persons per

[7] CDP means Census Designated Place. The Sun Lakes CDP includes all of the Pima wastewater service area except 227 residential units in the San Tan Vista subdivision.

household. Furthermore, I do not believe regulators would have allowed projected demographic shifts to be considered in the sizing of the Pima WRF.

Q. WHY NOT?

A. Design and sizing of wastewater reclamation facilities is a heavily regulated process with regulators requiring the use of mandated design unit flows or historically observed flow patterns in projecting flows. The process is conservative and intended to insure that sufficient capacity will be available for flows that will occur well into the future. This is particularly important when a facility is being designed for an area at or nearing build-out, as it may not be economical or possible to add small amounts of additional capacity at a later date.

Q. OKAY. WHAT WAS THE NEXT STEP IN YOUR EVALUATION OF PIMA WRF CAPACITY?

A. I reviewed several years of customer and flow data to see if any patterns could be observed. Specifically, I used Commission Annual Report data from 2006 through 2011 and documented the recorded peak day flow and calculated the peak day flow per residential unit. The results of my review are presented in Table 1.

Table 1 — Evaluation of Pima WRF Historic Flows

Year	Total Customers	Commercial Cutomers	Residential Customers	Muti-Family Units	Residential Units	Peak Day (gallons)	Peak Day (gpd/unit)
2006	9,963	117	9,846	400	10,246	1,547,000	151.0
2007	10,032	104	9,928	400	10,328	1,738,000	168.3
2008	10,046	103	9,943	400	10,343	1,591,000	153.8
2009	10,049	103	9,946	400	10,346	1,644,000	158.9
2010	10,051	105	9,946	400	10,346	1,438,000	139.0
2011	10,050	104	9,946	400	10,346	1,517,000	146.6

Q. WHAT KEY OBSERVATIONS CAN BE MADE FROM REVIEWING THE DATA IN TABLE 1?

A. There are several key takeaways from the data.

- The peak day flow and peak day flow per unit are highly variable from year to year.
- The peak day flow and peak day flow per unit is trending downward consistent with the changing demographic patterns previously discussed.
- The test year peak day flow and peak day flow per unit is the lowest flow recorded in the previous six years.
- The build-out peak day flow of 1.449 MGD projected by Staff for build-out of Pima's wastewater service area is less than the actual flow recorded in five of the past six years.

Q. WHAT WAS THE FINAL STEP IN YOUR ANALYSIS?

A. I selected the 2010 test year and the 2007 calendar year for additional detailed analysis. Exhibit RLJ-RB4 provides documentation of 2007 and 2010 sewage flows and related peaking factors and a comparison to design flow and peaking factors. In addition, peak day flows were projected using both the 2007 and 2010 test year data and compared those results to the projected peak day flows from the 1994 design of the Pima WRF. My analysis showed that projected peak sewage flows can vary significantly depending upon what data set is used to project future flows.

Table 2	Summary of Impacts of factors Affecting Wastewater Flows			
	Using 2007 Data		Using 2010 TY Data	
	Projected Peak Day Flow (MGD)	Percent Change	Projected Peak Day Flow (MGD)	Percent Change
1994 Design Peak Day Flow	2.393	0.00%	2.393	
Impact of Reduced Units	(0.114)	-4.77%	(0.114)	-4.77%
Impact of Reduced Unit Flow	(0.619)	-25.86%	(0.653)	-27.29%
Impact of Changing Peaks	0.141	5.88%	(0.138)	-5.78%
Projected Peak Day Flow	1.801	-24.75%	1.487	-37.85%

Lastly, I further analyzed the 2007 and 2010 data to isolate and quantify the impact of the various factors that have decreased peak day wastewater flows at the Pima WRF since the plant was designed in 1994. My full analysis is presented on Exhibit RLJ-RB5. Table 2 summarizes my findings.

Q. WHAT CONCLUSIONS DID YOU DRAW FROM THIS DATA?

A. Several key conclusions can be drawn from the data.

- The reduction in build-out units since 1994 has not caused a significant reduction in projected peak day flows for the Pima WRF.
- Reducing per unit flows combined with changing peaking factors account for nearly all of the reduction in projected peak day flows at the Pima WRF.
- Shifting demographic patterns within the Pima customer base, including increased vacancy rates, decreased persons per home and increased water conservation account for nearly all of the reduction in the projected peak day flow at the Pima WRF since 1994.

Q. PLEASE SUMMARIZE YOUR CONCLUSION REGARDING THE PIMA WRF?

A. The Pima WRF was designed by professional engineers in 1994 using appropriate design factors and reasonably accurate unit count projections. The 1994 design resulted in an appropriately sized facility based on the information available at the time. From 1994 through 2011, unit flows have decreased and peaking factors have changed causing reduced flows at the Pima WRF. The unit flows and peaking factors vary significantly from year-to-year making prediction of future peak day flows difficult. The reduced per unit flows are primarily the result of the shifting demographics of Pima's customer base. Such shifting demographics could not have been predicted in 1994 and would not have been considered by regulators in 1997. These demographic changes may not be permanent and future peak day flows may increase in the future.

In other words, Pima made a prudent investment in the Pima WRF to provide wastewater treatment service to the homes and businesses that are currently connected to the plant—not some other homes and businesses yet to come or homes and businesses that never materialized. The plant, including the Phase II WRF at issue in this proceeding, is used and useful in providing services to the customers it was designed to serve. Reduced peak day flows at the Pima WRF is primarily the result of changing demographics within Pima's current customer base and does not indicate excess capacity exists at the Pima WRF.

III. BEST MANAGEMENT PRACTICES

Q. DOES STAFF MAKE A RECOMMENDATION REGARDING BEST MANAGEMENT PRACTICES?

A. Yes, Staff recommends that the Company file at least seven Best Management Practices ("BMPs") in the form of tariffs that substantially conform to the templates created by Staff and available on the Commission's website. The Company may submit the approved six ADWR BMPs and Public Education Program as part of the seven.

Q. DOES PIMA SUPPORT STAFF'S RECOMMENDATION?

A. No. Staff's recommendation is duplicative and excessive, taking the Company beyond what is required by ADWR, the agency that regulates Pima's use of groundwater. As detailed in my direct testimony, Pima already has a public education program and five ADWR approved BMPs in place.[8]

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

[8] Direct Testimony of Ray L. Jones at 5:3-16.

Pima Utility Company

Ray L. Jones Rebuttal Testimony

Exhibit RLJ –RB1

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Preliminary Design Report

FINAL

Pima Utility
Wastewater Treatment Plant

August 1994

Sun Lakes, Arizona

JOHN CAROLLO ENGINEERS

Exhibit B

PIMA UTILITY WWTP
PRELIMINARY DESIGN REPORT

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PIMA UTILITY WWTP
PRELIMINARY DESIGN REPORT

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1.0 INTRODUCTION

The Pima Utility Wastewater Treatment Plant (WWTP) in Sun Lakes is located north of Riggs Road on the east side of Price Road extension. The existing facility consists of three facultative/aerobic lagoons treating approximately 1.1 million gallons per day (mgd). The treated effluent is used to irrigate the north golf course of the Sun Lakes community, and agricultural fields surrounding the golf course for winter crops. The quality limitations for the plant effluent are classified as Limited Access Irrigation, because of Sun Lakes' status as an Adult community.

This Preliminary Design Report discusses the following:

- Project Description
- Wastewater Characteristics
- Description of Process Options
- Phasing Considerations
- Recommendations and Conclusions

2.0 PROJECT DESCRIPTION

Recent key issues relating to effluent quantity and quality have resulted in the need for modifications to the WWTP and a revised effluent disposal plan. The pertinent issues include the following:

- Higher level of treatment required
- Need to develop disposal or recharge options
- Seasonal fluctuations in effluent supply and demand
- Capacity increases to accommodate growth within Pima's certificated area
- Solids handling
- "Good Neighbor" concerns

2.1 Level of Treatment

All wastewater treatment plants are required to obtain an Aquifer Protection Permit (APP). The APP statute provides that existing facilities, such as Pima's, which were in existence on the date the APP statute was adopted and which filed a Notice of Disposal (NOD) in a timely fashion, are "grandfathered" into the program until required to file an APP application by ADEQ. Pima is in the process of negotiating a schedule to submit an APP application to ADEQ and will likely be required to file its application this year.

In order to obtain the APP, the facility will need to employ best available control technology (BADCT) to limit the discharge of pollutants to the aquifer. In the course of negotiating a schedule for Pima to obtain an APP, ADEQ has taken the position that denitrification is required as BADCT in order to obtain a permit for the facility, and is requiring that a new plant be built with denitrification capability in order to obtain the APP.

Additional treatment is also needed to meet open access reuse standards. Currently, the WWTP generates effluent which meets restricted access criteria, but upgrading the treatment capability will give the plant the flexibility of utilizing effluent for open access irrigation also.

The specific wastewater characteristics include total nitrogen, turbidity and fecal coliform. This higher degree of required treatment can be met by a conventional biological nitrogen removal activated sludge system, including filtration and ultra-violet (UV) disinfection. The following treatment processes are anticipated for this facility:

- Metering
- Fine Screens
- Biological Treatment
- Filtration
- Disinfection
- Solids Handling

2.2 Need for Disposal or Recharge Option

Pima needs to improve its effluent treatment capability so that effluent generated by the plant can meet disposal or aquifer recharge standards. Currently, Pima relies exclusively on direct reuse of effluent by the developer on golf courses, common areas, and farming operations in and around the Sun Lakes development to handle all of the effluent generated by the plant. Because water quality standards for reuse currently are less stringent than standards for recharge or disposal, the reliance on reuse has had the advantage of delaying implementation of more sophisticated and expensive treatment technology required for disposal or aquifer recharge.

Pima no longer can rely on direct reuse as its sole means for handling treated effluent because Pima has no control over effluent demand. It therefore needs to have a disposal and/or recharge option available should there be a decrease in such demand. Reuse demand could decrease if existing reuse areas are converted to other uses (such as retirement of farming areas), if existing reuse areas were converted from turf to low-water use landscaping, or if environmental permitting requirements become too burdensome for the reuse customers.

2.3 Seasonality

Pima needs to develop a recharge option to accommodate the seasonal nature of effluent flows and water demand. Currently, effluent flows peak in the winter, at the time when water demand is at its lowest. Conversely, effluent flows are lowest in the summer, at the time when water demand is highest. Providing for treatment capability in order to recharge the effluent will allow Pima to reduce the affect of seasonal fluctuations in supply and demand.

2.4 Capacity/Reuse Opportunities

In order to accommodate growth within Pima's certificated area, more capacity at the WWTP is required. The current flow is approximately 1.1 mgd, with the ultimate flow expected at 2.4 mgd. The existing plant should be able to handle flows up to 1.3 mgd, but additional facilities will be required to handle the increased flows.

2.5 *Solids Handling*

Unlike the lagoon system, an activated sludge process requires recycling and wasting of the sludge. The sludge must then be treated in a manner that allows disposal according to the most current regulations. An aerobic digester and thickening/ dewatering process will produce sludge that will meet regulations. The waste solids, properly dewatered and stabilized, will be disposed to a landfill.

The influent preliminary processes proposed also will produce some residuals. The screenings will be dewatered and removed to the landfill. The filter backwash water will be recycled back to the head of the plant.

2.6 *"Good Neighbor" Concerns*

As Sun Lakes develops, the WWTP will be closer to housing. The east side will eventually become housing developments. Also, the Gila River Indian Community is directly to the west of the site. It is important for the WWTP to become a "good neighbor" facility, to minimize complaints. Setback, as required by the ADEQ, is limited and an odor control system will be required. Noise abatement and aesthetic controls will be focused on during design.

The WWTP will be designed to accommodate current flows and future flows at build-out. The goal of this project is to provide the most cost-effective, reliable facility to meet regulatory disposal requirements.

3.0 *WASTEWATER CHARACTERISTICS*

3.1 *Flow*

Wastewater flows were estimated using historical flow rates at the Sun Lakes community, ADEQ guidelines, and known buildout population densities.

It was estimated that average annual flow will be 1.6 mgd. The dynamics of an adult-only, retirement community is that wastewater flow is low in the summer, and high in the winter. The peak daily flow is expected at 2.4 mgd, during the month of March.

Average Annual Flow	1.6 mgd
Peak Daily Flow	2.4 mgd (during peak month of March)
Peak Instantaneous Flow	7.2 mgd

3.2 *Influent Quality Strength*

A recent wastewater sample was tested and the following characteristics were recorded:

Parameter	Result	Unit
pH	7.80	S.U.
Nitrogen, Total Kjeldahl	48	mg/L
Biochemical Oxygen Demand (BOD)	280	mg/L
Total Suspended Solids (TSS)	340	mg/L
Phosphorus, Total	7.7	mg/L
Ammonia Nitrogen	36	mg/L
Nitrate Nitrogen	<0.5	mg/L
Nitrite Nitrogen	<0.005	mg/L
Total Nitrogen (NO2 + NO3 + TKN)	48	mg/L
Alkalinity, Total	280	mg/L

3.3 Effluent Quality

The anticipated effluent requirements include the following:

BOD	10 mg/L	Fecal Coliform	2.2 CFU/100 ml
TSS	10 mg/L	Enteric Virus	1/40 L
Total nitrogen	10 mg/L		

4.0 DESCRIPTION OF PROCESS OPTIONS

A discussion of treatment process for the WWTP is included herein. The following are described:

- Pretreatment
  - Metering
  - Screens
- Liquid Stream Treatment
- Solids Treatment
  - Thickening
  - Aerobic Digesters
  - Dewatering
- Filtration
- Disinfection
- Odor Control
- Standby Power

The influent and effluent pumping facilities already exist for the WWTP. The plant layout and hydraulics will be set such that those existing elevations and flowrates will be utilized without modification.

4.1 Pretreatment

4.1.1 Metering Accurate influent flow metering is required to satisfy regulatory requirements and to provide data to operate the treatment facilities. Plant flow is pumped from the collection system by four submersible pump stations. With a potential peaking factor of 3.0, a peak instantaneous flow of 7.2 mgd may occur. For short periods, all four pumps could be pumping at peak, therefore, the metering must have a hydraulic range up to 7.2 mgd. Assumed minimum flow is 0.20 mgd.

Parshall flumes and magnetic flowmeters were evaluated as the primary means of monitoring influent flows. Table 1 compares these alternatives.

TABLE 1 - FLOWMETER COMPARISON		
Parameter	***Parshall Flume***	***Magnetic Flowmeter***
Low Headloss	0	+
Cost	+	-
Accuracy	0	+
Range of Flow	+	0
Maintenance	+	0

- = Negative
+ = Positive
0 = Neutral

Parshall flumes are recommended for this project based on lower cost, ability to handle a wider range of flow, and lower maintenance needs.

4.1.2 Screens. Fine screens remove solids to improve efficiency of downstream treatment processes. The range of flow will be the same as for metering. Static screens and rotating screens were evaluated. These two were selected for solids removal capability, simple operation, and cost. Table 2 compares these alternatives:

TABLE 2 - FINE SCREEN COMPARISON		
Parameter	***Static Screen***	***Rotating Screen***
Low Headloss	-	+
Cost	+	0
Solids Capture	0	0
Range of Flow	-	0
Fit to Screenings Press	-	+
Operator Attention	0	+
Maintenance	+	-

A rotating screen is recommended for this project. One screen would be installed now with provisions for one future. A manual bypass channel is necessary to allow maintenance on the screens.

4.1.3 Solids. Screenings from the fine screen has a high moisture content and a high fecal content. A screenings press is recommended to remove moisture from the screenings. The water is returned to the flow stream. The resulting screenings are then hauled to the landfill for disposal.

4.2 Liquid Treatment

4.2.1 Introduction. To consistently produce effluent of acceptable quality, an activated sludge, biological nutrient removal (BNR) process is recommended. The basic requirements of a BNR process include:

- Activated sludge tank that provides an anoxic stage and an aerated stage
- Clarifier to separate the sludge solids from the clear effluent

The raw wastewater and the return activated sludge (RAS) enter the anoxic zone and are mixed, to keep the solids in suspension, with mixed liquor that is recycled from the aeration zone. This provides the environment for denitrification. Nitrification and BOD reduction occur in the aerated zone.

Although there are many accepted alternatives available to achieve the same results, three alternatives were evaluated for this project:

- Alternative 1 - Sequential Batch Reactor
- Alternative 2 - Extended Aeration
- Alternative 3 - Oxidation Ditch

The alternatives were evaluated using the following criteria:

- Cost
- Operational simplicity and flexibility
- Operational dependability

4.2.2 Process Description.

Alternative 1 - Sequential Batch Reactor

The Sequential Batch Reactor (SBR) process is based on a batch method of treatment incorporating equalization, anoxic reaction, aeration and clarification within one basin. The system typically utilizes more than one tank, such that one tank can be filling while the other tank is going through the cycles. In the past, the controlling of the cycle time was labor-intensive, however, with the advent of computers and Programmable Logic Controllers (PLC), the SBR is easily automated.

To treat 2.4 mgd at the Sun Lakes WWTP, a three tank system is proposed. The following phases within a cycle are:

- Fill
- Mixed/React fill
- React/Anoxic mixing for denitrification alternating with (react) aeration cycles
- Settle (Sedimentation, air turned off,)
- Decant (Effluent is removed from the tank)

The react time allows for anoxic periods and aerobic periods such that denitrification/ nitrification/BOD reduction can occur. The SBR's cycles are driven by time, with a level override. In this way, peak flows can be easily accommodated by shortening some of the phase times. Wasting of sludge can be accomplished during the decant phase. Because of the PLC driven system, operator attention is kept to a minimum, as the SBR basically adjusts itself to varying flows.

A disadvantage of the SBR is the need for an effluent equalization tank. The success of the SBR relies on the ability of the decant mechanism to remove the clear effluent during the decant phase. The decant rate is 3,700 gpm (or 5.3 mgd). To avoid sizing the downstream processes this large, an effluent equalization tank is required.

The advantage to the SBR is that no clarifier, recycle mixed liquor pumps and RAS pumps are necessary, since all treatment occurs in one tank. The list of equipment required for the SBR system is as follows:

- Blowers and fine bubble diffusion
- Mixers
- Decant mechanism
- Waste activated sludge (WAS) sludge pumps
- Effluent/Equalization pumps

Currently there are several successful SBRs operating in Arizona, including Cottonwood, Tatum Ranch in north Phoenix, and Sedona. For the Sun Lakes WWTP, a SBR system could be accommodated easily on the site, and hydraulically positioned such that discharge into the existing effluent pump station could be accomplished. Figure 1 represents the process schematic and hydraulic profile for Alternative 1.

Alternative 2 - Extended Aeration

Alternative 2 is based on a basin with physically separated anoxic and aeration zones providing biological and nutrient removal. Clarifiers are required, as well as return activated sludge/waste activated sludge (RAS/WAS) pumps. Mixed liquor pumps recycle the flow from the aeration zone to the anoxic zone to aid denitrification.

This system is reliable for reaching an effluent quality that will be required at the WWTP. The disadvantages are that a higher level of operator attention is required, and more equipment necessary when compared to an SBR.

The following equipment is necessary for the extended aeration system:

- Blowers and fine bubble diffusion
- Mixers
- Recycle mixed liquor pumps
- RAS and WAS pumps
- Clarifier mechanisms

Figure 2 shows the extended aeration system process schematic and hydraulic profile.

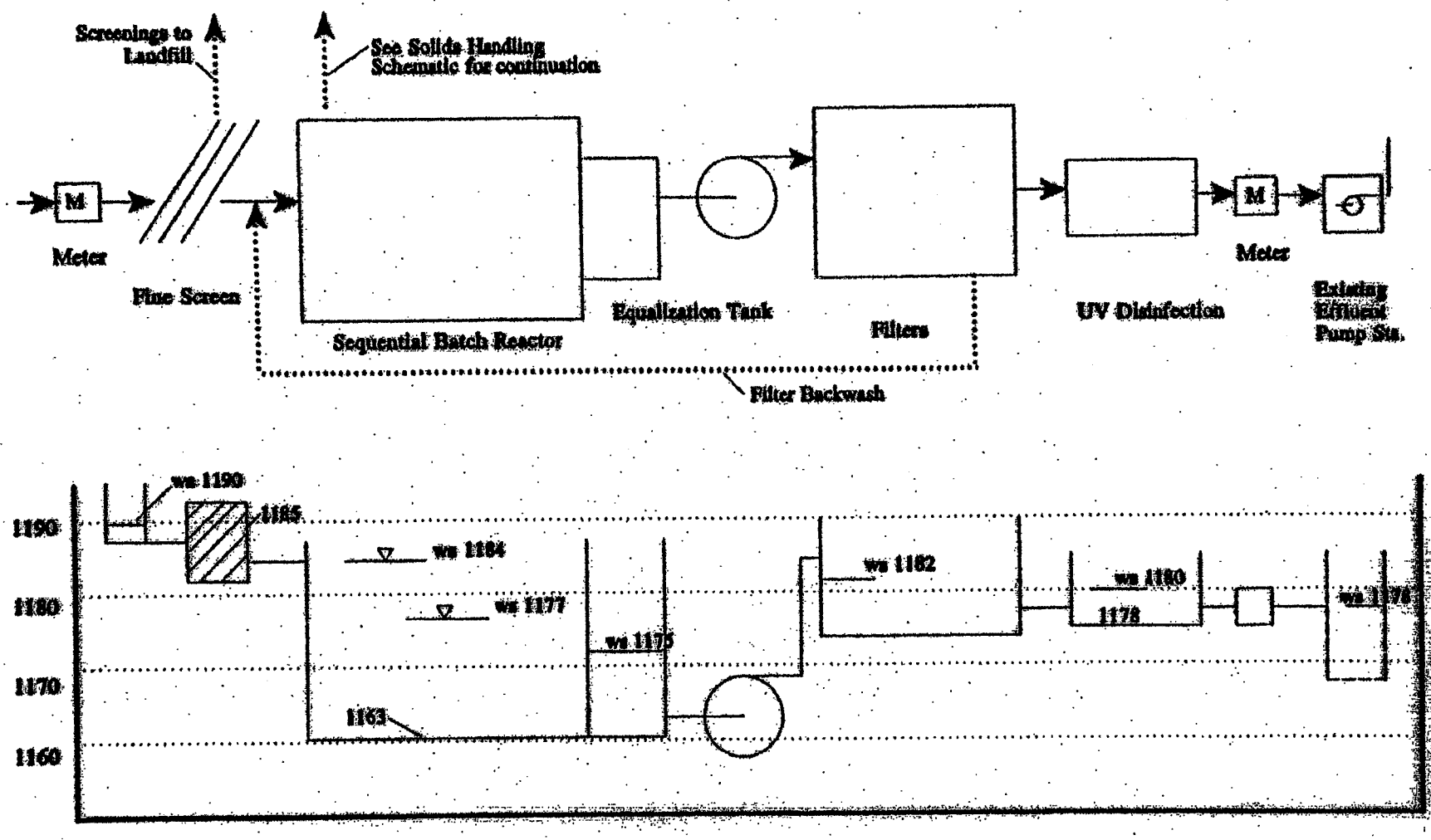
Alternative 3 - Oxidation Ditch

This proposed alternative has a pre anoxic zone attached to an oxidation ditch. Although the system is larger in physical size compared to the other alternatives, the oxidation ditch can still be accommodated on the site. Clarifiers are required for this alternative; however, no recycle mixed liquor pumps are needed. The list of equipment is as follows for the oxidation ditch:

- Mixers
- Floating aerators (instead of fine bubble diffusion)
- RAS and WAS pumps
- Clarifier mechanisms

The schematic and hydraulic profile for this alternative are shown on Figure 3.

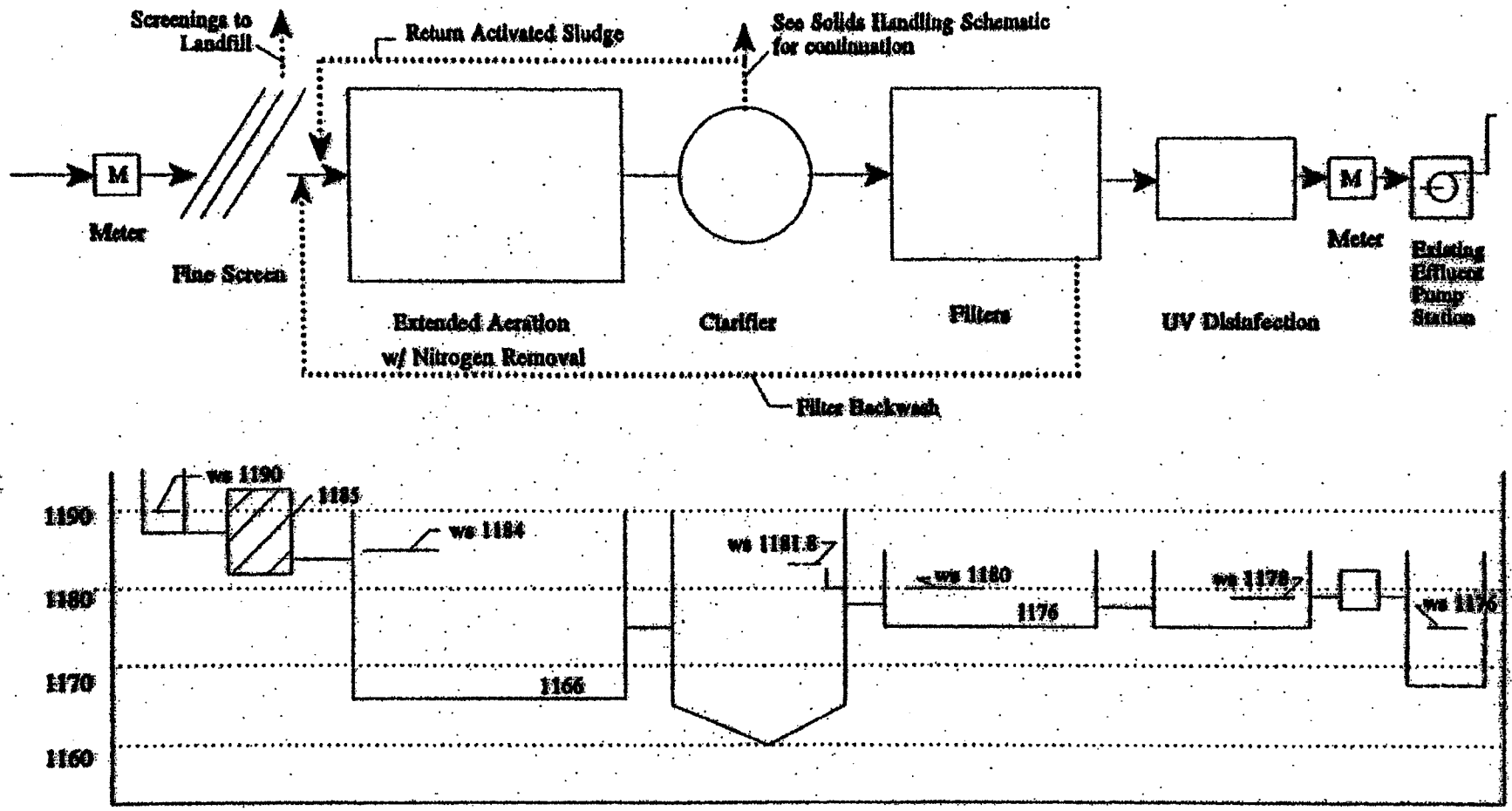
4.2.3 Comparison of Alternatives. A preliminary basis of design was developed for each of the three alternatives. Generally the systems have similar process attributes, as they are all extended aeration. The design criteria for the three alternatives are shown in Table 3.



ALTERNATIVE 1 - SEQUENTIAL BATCH REACTOR PROCESS SCHEMATIC AND HYDRAULIC PROFILE

Sun Lakes WWTP
Preliminary Design
June 1994

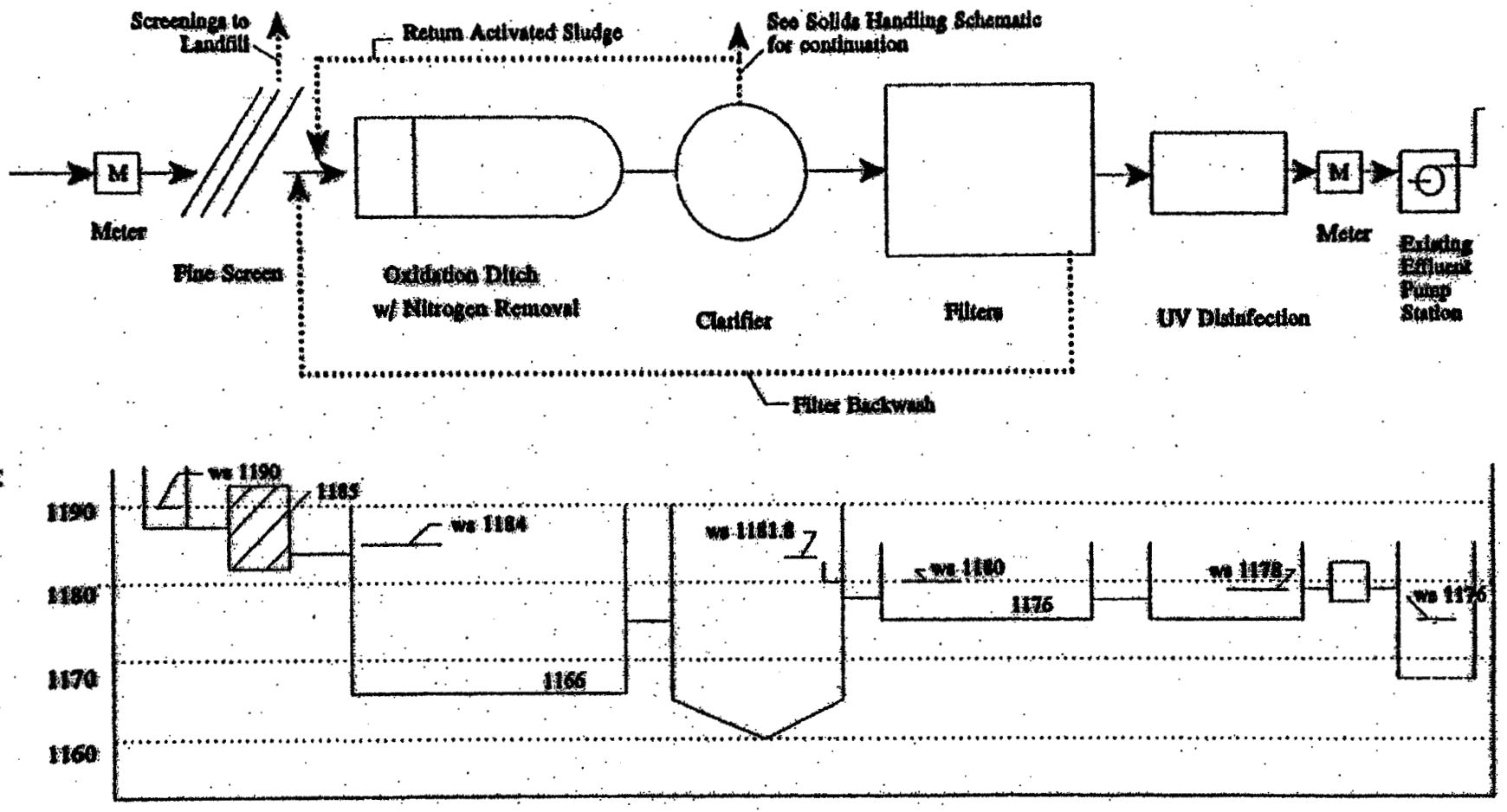
FIGURE 1



ALTERNATIVE 2 - EXTENDED AERATION PROCESS SCHEMATIC AND HYDRAULIC PROFILE

Sun Lakes WWTP
Preliminary Design
June 1994

FIGURE 2



ALTERNATIVE 3 - OXIDATION DITCH PROCESS SCHEMATIC AND HYDRAULIC PROFILE

Sun Lakes WWTP
Preliminary Design
June 1994

FIGURE 3

Influent Characteristics	
Flow (Average Annual)	1.6 mgd
Flow (Peak Daily)	2.4 mgd
BOD	280 mg/L
SS	300 mg/L
NH3-N	36 mg/L
NO3/NO2-N	0 mg/L
TIN	12 mg/L
Alkalinity	280 mg/L
Design Temperature	20 deg C

SUN LAKES WASTEWATER TREATMENT PLANT
SUN LAKES, ARIZONA

TABLE 3
Biological Nutrient Removal Process Evaluation
June 10, 1994

Description Based on 2.4 mgd	Units	Alternative 1 Sequential Batch Reactor	Alternative 2 Extended Aeration	Alternative 3 Oxidation Ditch
Biological Reactor				
No. of Basins	each	3	2	2
Hydraulic detention time	hours	24	20	24
MLSS	mg/L	4500 (at min water level)	3000	3000
Solids Retention Time (SRT)	days	15	10	15
Design SRT for nitrification	days	4.3	4.3	5.5
Anoxic Zone Fraction	%	–	17	15
Mixed Liquor Recirculation	ratio	–	5	10
Basin Dimensions, each	sf	50 x 100	180 x 45	200 x 65
Side Water Depth	feet	21 max, 15 min	18	14
Volume, each/total	mgal	0.79/2.4	1.0/2.0	1.36/2.72
Oxygen Required	lb/day	9300	9300	9600
Type of Diffuser	–	fine	fine	surface aerator
Oxygen Transfer Efficiency	%	13	13	3.5 lb/ hr-hp
Air Required	scfm	2700	2870	–
Horsepower Required (air)	hp	200	200	100 (per basin)
Horsepower Required (mixing)	hp	2 – 20 hp/basin	30	6 (per basin)
Influent Equalization Required?	Y/N	N	N	N
Effluent Equalization Required?	Y/N	Y	N	N
Clarifier				
No. of Basins	each	N/A	2	2
Surface Overflow Rate	gpd/sf	N/A	450	450
Diameter	feet	N/A	60	60
Side Water Depth	feet	N/A	14	14
Weir Loading Rate	gpd/ft	N/A	6900	6900
Weir Length/Basin	feet	N/A	182	182
Return Sludge Fraction, Qr/Q	–	N/A	0.5 – 1.50	0.5 – 1.50
Return Sludge Flow	mgd	N/A	1.2 – 3.6	1.2 – 3.6
Sludge Wasted (WAS)	lbs/day	7800	7800	7800
Concentration	mg/L	7000	7000	7000
Flow rate, Qw	mgd	0.14	0.14	0.14
Secondary Effluent Quality				
BOD	mg/L	10	5	5
SS	mg/L	10	20	20
Total Nitrogen	mg/L	8	6	5

A preliminary cost comparison was also performed. It was assumed that the biological process tankage would be covered, to treat odors. The equalization tank for the SBR alternative would not require covers. The capital cost comparison, as shown in Table 4, indicates that the SBR system is the lowest cost alternative. The system's flexibility and simplicity of operation are also benefits.

4.3 Solids Treatment

Most of the pollutants in wastewater are concentrated in sludge during the biological process. Economic disposal of this sludge requires stabilization and dewatering. For this facility, JCE recommends using aerobic digesters for stabilization, followed by dewatering to 20-25 percent solids concentration to allow landfill disposal.

4.3.1 Aerobic Digesters. Stabilization consists of treating the sludge so that future decomposition by biological action does not occur. It results in a sludge that will not undergo bacterial decomposition, has good dewatering characteristics, has very little odor, and a low pathogen content. Stabilization with aerobic digestion resembles the activated sludge process since the aeration equipment and tanks are similar. Some advantages of aerobic digestion compared to anaerobic digestion are lower capital costs, an odorless end product, lower BOD concentration in the supernatant liquor, and relatively simple operation. Generally, operating costs are higher because of the power input to provide oxygen.

Aeration and mixing could be provided by mechanical aerators as used in the existing aerated lagoons, or by fine bubble diffusion, similar to that used in the biological process.

4.3.2 Dewatering. For landfill disposal, sludge is required to pass a paint filter test. This means the sludge must be dry enough to show no free water. To meet this requirement, the sludge should be dewatered to approximately 25 percent solids.

Because of space restrictions, mechanical dewatering is recommended. Centrifuge, belt filter press, and plate and frame press systems were evaluated on the following criteria:

- Production of odor, and inherent ease of odor containment and control.
- Ability to achieve the target solids range; 25 percent solids.
- Operational reliability.
- Cost, both capital and operations/maintenance (O&M).

Table 5 summarizes this evaluation.

PIMA UTILITY WASTEWATER TREATMENT PLANT
SUN LAKES, ARIZONA

TABLE 4
Biological Process Alternatives Cost Evaluation
June 1994

ENR = 5700

Item		Alternative 1 Sequential Batch Reactor	Alternative 2 Extended Aeration	Alternative 3 Oxidation Ditch
Required Equipment		Mixers Blowers Aeration Diffusers Decant Mechanisms WAS Pumps Equalization Pumps	Mixers Blowers Aeration Diffusers Recycle Pumps Clarifier Mechanisms RAS Pumps WAS Pumps	Mixers Aerators Clarifier Mechanisms RAS Pumps WAS Pumps
Concrete/Equipment Cost		$1,766,000	$2,195,700	$1,829,500
Sitework	5%	$88,300	$109,785	$91,475
Electrical	15%	$264,900	$329,355	$274,425
Piping/Valves	10%	$176,600	$219,570	$182,950
TOTAL COST		$2,295,800	$2,854,410	$2,378,350

TABLE 5 - MECHANICAL DEWATERING			
Parameters	***Centrifuge***	***Belt Filter Press***	***Plate and Frame Press***
Odor Containment	+	-	0
Solids Reliability	+	-	+
Operational Reliability	0	+	+
Cost, Lowest	+	0	-

Based on overall cost, capability of producing desired sludge dryness, and odor control, the centrifuge is preferable. For this facility, JCE recommends installing three centrifuges, one as a backup. This gives reliability, and also allows dewatering in a short time if both are used. The centrifuge also has the advantage of being used as a thickener and recycling the sludge to the digester.

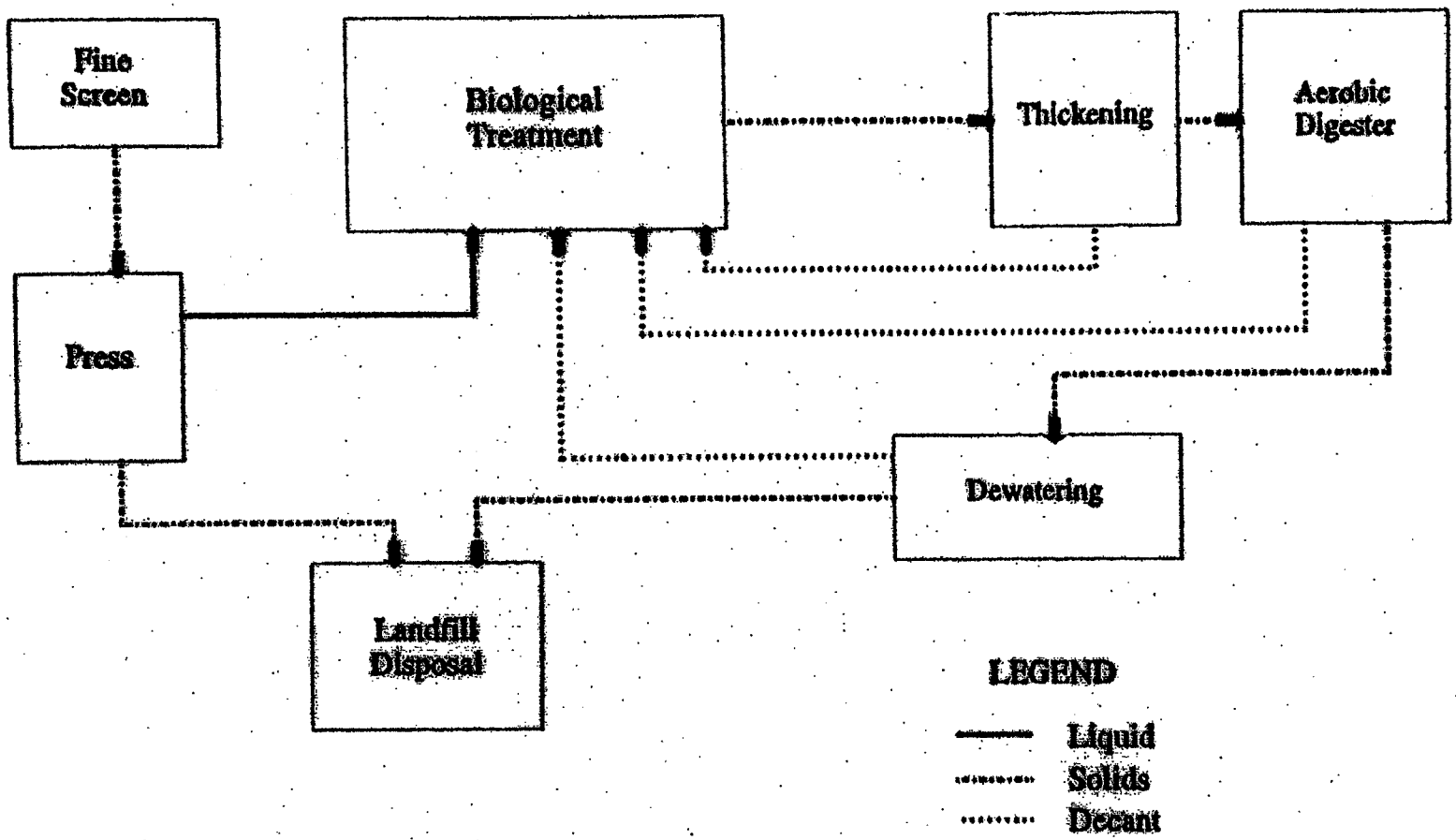
Refer to Figure 4 for solids handling schematic.

4.3.3 Thickening. Sizing the digesters is impacted by the ultimate disposal method. If the sludge is disposed in a landfill, there is no minimum retention period by regulation. The retention time is then based on the impact for improved dewatering. In the higher temperatures of Arizona, retention time can be reduced to 20 days in the digester. To provide additional flexibility in ultimate disposal, the digesters will be sized for 40 days retention with a thickened sludge.

Sizing is also impacted by the percent solids concentration maintained in the digester. Sludge from the biological process will be approximately 0.75 percent solids. The digester can operate at this concentration or use thickening to achieve up to 3 percent solids concentration. It is not recommended to operate the digester at a higher concentration than 3 percent because of mixing and aeration difficulties. Thickening sludge will result in a smaller-size digester. Thickening can also be used as a backup to maintain sludge retention time if part of the digesters are out of service.

For waste activated sludge, mechanical thickening using a centrifuge or belt press is recommended. For this facility a centrifuge is recommended for thickening. The same units can be used for both thickening and dewatering.

As shown on Figure 4, sludge would be drawn out of the biological treatment basins into a sludge storage tank. The centrifuge would then thicken the solids from 0.75% to 2.5% and discharge to the digester. The sludge storage tank will hold one days solids so the thickening process can be operated during a day shift rather than 24 hours per day.



SOLIDS HANDLING SCHEMATIC

Sun Lakes WWTP
Preliminary Design
June 1994

FIGURE 4

4.4 *Filtration*

In order to produce an effluent with low turbidity to enhance recharge and to allow more reuse options, tertiary filters are required at the Sun Lakes WWTP. The filters proposed are low-head, travelling bridge, automatic backwash type filters. The media will be composed of sand.

Two filters will be provided, such that the filtration rate will be 2.0 gallons per minute per square foot with both filters operating. If one filter is down for maintenance such as media replacement, the filtration rate would be 4 gpm/sf which is acceptable. The automatic backwash filter does not require down-time during backwash, as the traveling bridge mechanism backwashes one "cell" at a time, using filtered effluent. The waste backwash water will be returned to the biological process.

4.5 *Disinfection*

Ultraviolet (UV) disinfection is recommended for the Sun Lakes plant, instead of utilizing the existing chlorine system. UV will not generate trihalomethanes (THMs) like chlorine, an important factor considering that the effluent will be recharged into the groundwater. UV has been used successfully as a disinfectant in Arizona, including at the City of Tempe. It is efficient in producing effluent with low fecal coliforms concentrations and no detectable virus levels.

4.6 *Odor Control*

Odor control is considered a necessary feature of a "good neighbor" plant, especially due to the limited setback and proximity of the site to the planned housing development. Odor control consists of removing odorous compounds from air prior to release to the atmosphere. The sources of odor at the Sun Lakes WWTP will be the fine screens, biological process tanks, and solids treatment areas.

The screening area and the solids thickening/dewatering area are expected to produce the most odors. The odor control system will provide a complete air change of the rooms every two minutes. The SBR and digester tanks will be covered with concrete deck or fiberglass covers and the air space under the covers will be scrubbed as well. The filters and UV disinfection area will not be treated for odors.

The odor control system proposed is a two stage wet scrubber system. The system is efficient, low-profile and completely packaged. The system is based on multi-stages of scrubbing, including gas conditioning and distribution, followed by two stages of high efficiency cross flow packed bed sections, a mist eliminator and integral recirculation sump. The odors are neutralized using caustic solution (NaOH) and a dilute sodium hypochlorite solution (NaOCl). The expected efficiency of odor removal is 95-99 percent.

4.7 *Standby Power*

Standby power is required by ADEQ, and will be provided at the WWTP. It is proposed to utilize a diesel generator, capable of running the aeration blowers, the centrifuges, the filters and disinfection system. Other non-critical loads will not be connected to the generator system.

5.0 *PHASING CONSIDERATIONS*

The WWTP can be designed to allow for phasing of treatment components, if desired. The flow rate of 1.3 mgd is expected when the plant begins operation in 1997. The flow rate of 2.4 mgd, which is based on peak daily flow during the peak month of March, is projected in 2004. The following processes could be phased to match anticipated flow rates.

Process	Number at 1.3 mgd	Required at 2.4 mgd
Fine Screen	1	2
Sequential Batch Reactors	2	3
UV Disinfection	1	2
Aerobic Digestion	1	2
Centrifuge	2	3

6.0 *RECOMMENDATIONS AND CONCLUSIONS*

Preliminary design recommendations and conclusions for the Pima Utility Wastewater Treatment Plant at Sun Lakes are as follows:

1. Meter influent flow with a Parshall Flume with capacity up to 10.4 mgd.

2. Use rotating fine screens for solids removal. Install one screen now with provisions for one in the future. Provide a bypass channel with a manual bar rack.

3. Dewater screened solids with a screenings press, one dedicated to each rotating screen.

4. Use Alternate 1 - Sequential Batch Reactor as the activated sludge, biological nutrient removal process. Construct three basins now. Completely equip two basins with required mechanical equipment. Equip the third basin in the future.

5. Construct one aerobic digester based on 40 day sludge retention at a plant flow of 1.3 mgd. Provide for a future second digester.

6. For solids thickening/dewatering install 2 centrifuges and related equipment. Operation will be based on 2 units with each other as redundancy. Install an additional centrifuge in the future.

7. Construct two traveling bridge sand filters. Filter operation will be sized for 2.0 gallons per minute per square foot of surface area.

8. Utilize U.V. disinfection for the plant effluent. Install UV lamps to treat the initial flow now, with channel length available for the future flow of 2.4 mgd.

9. Provide odor scrubbing facilities for the odor generating processes.

PIMA UTILITY WASTEWATER TREATMENT PLANT
SUN LAKES, ARIZONA

TABLE 6
Preliminary Construction Cost Estimate
June 1994

ENR = 5700

Treatment Process		Construction Cost
1. Influent Metering		$6,500
2. Fine Screen		$237,000
3. Sequential Batch Reactors		$1,766,000
4. Filtration		$474,000
5. UV Disinfection		$298,000
6. Aerobic Digestion		$663,100
7. Thickening/Dewatering		$1,040,000
8. Odor Control		$110,500
9. Operations Building		$175,000
10. Standby Generator		$365,000
	SUBTOTAL	$5,135,100
Sitework	5%	$256,755
Electrical	15%	$770,265
Piping	10%	$513,510
	SUBTOTAL	$6,675,630
General (See Note 1)	12%	$801,076
	TOTAL	$7,476,706
Contingencies	10%	$747,671
	TOTAL	$8,224,376

Note 1: Includes Contractor Overhead & Profit, Mobilization, and Bonds & Insurance

10. Provide diesel generator as required for standby power.

11. Budget cost estimate for this project is as shown in Table 6.

The following Preliminary Basis of Design outlines all proposed process requirements for the Pima Utility WWTP. A preliminary Site Plan is shown on Figure 5.

BASIS OF DESIGN

Influent Characteristics

Annual Average Flow, mgd	1.6
Peak Daily Flow (in peak month, March), mgd	2.4
Peak Instantaneous Flow, mgd	7.2
Wastewater Quality	
Biochemical oxygen demand, BOD, mg/L	280
Suspended solids, mg/L	300
Ammonia nitrogen (NH_3-N), mg/L	36
Total nitrogen, mg/L	48
Alkalinity, mg/L	280
Temperature, degrees C	20-30
pH	7.86

Pretreatment

Metering	
Type	Parshall Flume
Number	1
Throat width, ft	1.0
Depth, ft	3.0
Capacity, mgd	
Maximum	10.4
Minimum	0.20
Headloss at peak flow, ft	1.10
Mechanical Screens	
Type	Rotating Screen
Number	1 + 1 Future, With Manual Bypass
Capacity, mgd each	4.0
Screen opening, inches	0.10
Screenings Press	
Type	Hydraulic Ram
Number	1 + 1 Future
Capacity, ft^3/hr	12
Size, inches diameter	10

Biological Treatment

Sequential Batch Reactor

Number Required	3
Hydraulic Detention Time, hours	24
Cycles per Day, per Basin	4
Maximum Liquid Depth, feet	21
Minimum Liquid Depth, feet	15
SBR Area, Each, sf	5,000
SBR Area, Total, sf	15,000
Dimensions, Each	
Width, ft	50
Length, ft	100
Volume, Each, cf	105,000
Volume, Each, mgal	0.79
Operating MLSS, mg/L (varies throughout cycle)	4,500 (at low water level)
F:M Ratio, lb/BOD/lb MLSS	0.075
Decant Range, feet	5.36
Decant Volume, per Cycle, gal	200,000
Decant Flow, per Cycle, gpm, at peak flow	3,333
Mixing Requirements	
Number of mixers, per basin	2
Mixing capacity, BHP/mgal	33
Horsepower, each, hp	20
Air Requirements	
Oxygen required	
For BOD (1.45 lb O_2/lb BOD) lbs/d	8,019
For Nitrogen (4.60 lbs O_2/lb N), lbs/d	2,593
Denitrification, lbs/d	-1,500
Total O_2 required, lbs/d	9,000
Type of diffusion	Fine Bubble, Membrane
Oxygen transfer efficiency at low water depth, %	13
Air required, scfm	2,770
Air required per BOD applied, scf/lb	737
Effluent Equalization Tank	
Volume required, gal	122,000
Depth, ft.	14
Min. area required, sf	1125
Pumping rate, gpm	1700

Filtration

Filters Required	2
Filtration Rate, gpm/sf	2
Filter Area, ea, sf	425
Length, ft	34
Width, ft	12.5
Number of Backwashes/Day	6
Backwash Water Consumption, gpd	30,000
Wash Water Flow Rate (during backwash), gpm	183

UV Disinfection

Number of Channels	1
Width, ft	2.75
Length, ft	46
Channel depth, ft	2
Retention Time, sec.	26.6
UV Density, watts/gal	12.6
UV Transmission, %	65
Average Intensity (at 100 hours and 65% UVT), microwatts/cm^2	6,150
UV Dose (after 3,760 hrs and 65% UVT), microwatts-sec/cm$_2$	106,400
Number of Banks	4
Number of Modules/Bank	11
Number of Lamps/Module	8

Effluent Characteristics

BOD, mg/L	2
Suspended Solids, mg/L	2
Turbidity, NTU	<5
Fecal Coliform, CFU/100 ml	2.2
Enteric Virus	None Detectable
Total Nitrogen, mg/L	8
Nitrate - nitrogen, mg/L	5

Solids Handling

Sludge Digestion	
Type	Aerobic, Continuous Operation
Number	1 + 1 Future
Concentration, % solids	2.5
Volume required, gal total	
@ 1.6 mgd	645,180
@ 2.4 mgd	947,770

Dimensions	
SWD, ft	21
Length, ft	100
Width, ft	42
Detention time, days	40
Solids Dewatering	
Type	Centrifuge
Number	3
Feed rate, gpm, each	110
Operation hours per week	9
Feed concentration, % solids	2.5
Dewatered concentration, % solids	25
Solids Thickening (Use same equipment as Dewatering)	
Type	Centrifuge
Number	as above
Feed rate, gpm	150
Feed concentration, % solids	Varies, 0.75 to 2.5
Thickened concentration, % solids (recycled to digester)	6
Operation, hours per week	18
Sludge Holding Tank	
Dimensions	
Depth, Ft.	10
Width, Ft.	24
Length, Ft.	50

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PIMA UTILITY

Wastewater Treatment Plant

Sun Lakes, Arizona

PHASING STUDY

December, 1994

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Exhibit C

INTRODUCTION

The purpose of this study is recommend the most cost effective staging strategy for the proposed Pima Utility Wastewater Treatment Plant (WWTP), Sun Lakes, Arizona. The proposed plant will be sized to serve a peak day of the peak month flow of 2.4 MGD (million per day) flow which is required when Sun Lakes is built out, projected for 2002. The plant is expected to be operational in December, 1996 and will serve a projected peak day flow of 1.6 MGD during the peak month of March, 1997.

METHOD OF ANALYSIS

John Carollo Engineers (JCE) has prepared a draft Preliminary Design Report for the Pima Utility Wastewater Treatment Plant. This plant has analyzed various alternatives on a cost basis with some consideration for phasing. This report will utilize the cost figures developed in that report to consider phasing alternatives.

PLANT DESIGN CONSIDERATIONS

The JCE Report reviews various alternatives in detail. Common design considerations for all alternatives are:

- Effluent must be suitable for groundwater recharge

  After 1997, there will not be sufficient land available for effluent disposal during winter months using irrigation, since effluent generated by the plant will exceed the irrigation demand of the effluent reuse sites. Effluent will need to be stored. The most efficient plan is to use the aquifer for storage and accomplish recovery using existing irrigation wells. The effluent will need to treated to a water quality level that will not cause or contribute to a violation of aquifer water quality standards when the effluent is used for recharge. This

treatment will include denitrification to reduce nitrogen concentrations to drinking water levels (less than 10 mg/l), UV disinfection to reduce fecal coliform and enteric viruses to very low levels, and tertiary filter to reduce the turbidity of the water (required to promote UV disinfections and minimize clogging of the recharge wells), also to allow open access reuse of effluent during the summer months when irrigation demand exceeds available flow.

- Odor Control is required

  A 1,000 ft. setback is required for a WWTP over 1 MGD unless noise and odor control is incorporated into the design. Unit 35 is located west of the plant site and is scheduled for grading in May, 1995. Non of the lots within 1,000 ft. of the plant can be platted and sold until the plant has odor control. In addition, the area west of the plant is on the Gila River Indian Community.

- BADCT Requirements for the Aquifer Protection Permit

  The new plant will be required to obtain an Aquifer Protection Permit and will be required to meet BADCT (Best Available Demonstrated Control Technology), although ADEQ has not published a definitive BADCT policy, current BADCT is understood to be nitrogen removal, UV disinfection, and tertiary filters. The plant will meet these standards.

- Reliability

  The plant effluent will be recharged into the aquifer. This implies that "end of pipe" effluent quality must reliably meet a standard that will not cause or contribute to a violation of aquifer water quality standards. This requires that effluent quality be preserved in the event of a unit failure, which implies the need for back up systems for critical plant elements.

- Simplicity and Proven Technology

  There are many technologies available. Some of the manufacturers of new technology promote energy and capital cost savings but cannot demonstrate a proven history of reliability. These technologies are not appropriate for Pima Utility. The goal of the current Pima Utility project is to construct a reliable plant that requires a minimum of operator attention; has reasonable energy, chemical and maintenance requirements; and minimizes utility rates for the rate payers.

- Solids Management System

  Operation of an activated sludge sewage treatment plant required wasting of biosolids on a continual basis. Organic material in the sewage is stabilized through the growth of bacteria referred to as biomass, "older" batches of bacteria will be less efficient in removing organic matter through metabolism and can cause foaming and other operational problems, therefore biomass must be removed from the system to optimize the process. When the plant opens in January, 1997, the peak day flow is expected to be 1.6 MGD. Sludge management systems can be sized for average daily flows which will be about 1.3 MGD. About 44,600 gallons of liquid sludge per day will be removed from the biological reactor, this amounts to 2,800 dry weight pounds of sludge per day. If the solids management system is not efficient or has limited capacity, the reactor performance will suffer and the plant could fail to meet discharge standards.

PLANT ELEMENTS

The plant elements are:

- Flow metering
- Fine screens
- Biological Treatment
- Filtration
- Disinfection
- Solids Handling
- Odor Control

Each plant element will be examined to develop the most cost effective phasing plan.

PROJECT SUBDIVISION APPROVAL AND PLANT FLOWS

The Sun Lakes Development must show that sufficient sewage treatment plant capacity exists or is under construction in order to obtain approval of subdivision plats. In addition, the Maricopa County Department of Environmental Management (MCDEM) has a policy that requires a new plant or plant addition be designed when the existing plant reaches 80% of capacity and be under construction

when plant capacity reaches 90% of design flow.

Currently there are 6,868 platted lots of which 5,867 lot have homes constructed and are connected to the sewer system. Thus, 85% of the platted lots generate sewage. Since flows should not exceed 90% of constructed plant capacity (until build out), using platted lots to project flows would not result in significant excessive plant capacity. Therefore, for the purposes of this study, plant flows will be projected using platted lots.

Historical flow records and the forecast of 320 platted lots per year were used together with an estimate of multifamily units to project the amount of sewage flow to be treated at the plant. These flows are used to estimate required treatment plant capacity and to calculate the reuse water balances.

Table 1 presents historical data on the number of users connected to the Pima Utilities sewer system and the sewer flows generated by the plant for irrigation. During this period flows were measured using propeller meters on the effluent force mains, since March, 1994 the plant has an influent flow meter.

TABLE 1
PER UNIT FLOW ANALYSIS

YEAR	NO. OF UNITS CONNECTED (does not include commercial)	ANNUAL EFFLUENT (MG)	AVE. GALLON PER DAY PER UNIT (GPD/C)
1987	4,169	163.8	108
1988	4,450	204.6	126
1989	4,567	173.8	104

YEAR	NO. OF UNITS CONNECTED (does not include commercial)	ANNUAL EFFLUENT (MG)	AVE. GALLON PER DAY PER UNIT (GPD/C)
1990	4,812	204.0	116
1991	4,994	221.0	121
1992	5,286	255.6	132
1993	5,613	260.9	127

Sewage flows in Sun Lakes are seasonal. Historical records from 1987 to 1994 were used to estimate the monthly flow variation, as shown in Table 2. These factors were used to evaluate the capacity of the plant during summer and winter conditions.

TABLE 2
MONTHLY FLOW DISTRIBUTION

MONTH	FLOW FACTOR
January	1.20
February	1.13
March	1.29
April	1.14
May	0.96
June	0.79
July	0.76
August	0.60
September	0.78
October	0.99
November	1.13
December	1.23

The above data was used to develop a per unit flow of 167

gallons per day per unit for the peak month (March), which is converted into the peak day of the peak month using a factor of 1.17 yielding 195 GPD/unit flow. This figure was combined with a projection of 324 platted lots per year, estimates of multifamily development (using the same per unit flow), and estimates of commercial development to develop Table 3 of projected flows.

TABLE 3
PROJECTED PLANT CAPACITY REQUIREMENTS

YEAR	PLATTED LOTS	MULTI FAMILY UNITS	TOTAL RESI-DENTIAL UNITS	PROJECTED FLOW (MGD) PEAK FLOW DURING THE MAXIMUM MONTH (MARCH)		
				DOMESTIC	COM-MERCIAL	TOTAL
1994	7,143		7,143	1.379	0.129	1.508
1995	7,252		7,252	1.400	0.189	1.589
1996	7,592		7,592	1.465	0.194	1.659
1997	7,770		7,770	1.500	0.199	1.699
1998	8,094	500	8,594	1.659	0.204	1.863
1999	8,418	850	9,268	1.789	0.209	1.998
2000	8,742	1,200	9,942	1.919	0.214	2.133
2001	9,066	1,550	10,616	2.049	0.219	2.268
2002	9,289	1,948	11,237	2.169	0.224	2.393

ENGINEER'S COST ESTIMATE

The following table is the Engineer's Cost Estimate for the 2.4 MGD Sun Lakes Plant.

TABLE 4
ENGINEERS COST ESTIMATE

ITEM NO.	DESCRIPTION	ESTIMATED COST	COST WITH ALLOWANCES	PER CENT
1.	Influent Metering	$6,500	$10,410	0.13
2.	Fine Screen	$237,000	$379,579	4.61
3.	Sequential Batch Reactors	$1,766,000	$2,828,426	34.39
4.	Filtration	$474,000	$759,158	9.23
5.	UV Disinfection	$298,000	$477,277	5.80
6.	Aerobic Digestion	$663,100	$1,062,021	12.91
7.	Thickening/Dewatering	$1,040,000	$1,665,664	20.25
8.	Odor Control	$110,500	$176,977	2.15
9.	Operations Building	$175,000	$280,280	3.41
10.	Standby Generator	$365,500	$585,385	7.12
	TOTAL	$5,135,600	$8,225,177	100.00

* Allowances include 5% sitework, 15% electrical, 10% piping, 12% for Contractor overhead and profit and 10% for contingencies.

PHASING ANALYSIS

1.SEQUENCING BATCH REACTORS

The Sequencing Batch Reactors are the most costly element of the plant. They amount to over 34% of the construction cost. The reactors are concrete tank. Each tank is equipped with diffusers for aeration, mixers for the anoxic denitrification time period, a decanter to remove treated effluent at the end of each batch and sludge pump for sludge wasting. The tanks have a common PLC (Programmable Logic Controller) and blower system each having its own backup. A 122,000 gallon equalization tank and pump is required to reduce the decant flow of 3,700 gpm to 1,700 gpm, the rated flow for the tertiary filter and UV disinfection system.

There are three 1.26 million gallon tanks. Each tank is designed to handle 4 batches per day, is capable of treating 400,000 gallons per batch or an equivalent 3 hour peak flow of 4.8 MGD. The JCE reports recommends that two tanks are needed to treat the 1.6 mgd flow and 3 tanks are required for the ultimate 2.4 mgd flow.

A review of Table 2 reveals that by 1997 the peak month flow will be 1.699 MGD. This will already exceed the 1.6 MGD capacity of two batch reactors. Therefore, there is no advantage in phasing the batch reactors. All three should be constructed and equipped as part of the first phase.

SLUDGE THICKENING AND DEWATERING

This element of the project amounts to about 20% of the

project. This portion of the project reduces the volume of the sludge wasted from the batch reactors by 70% and reduces the volume of sludge out of the digester by 90%, to a 25% concentration, suitable for disposal at a landfill. Table 5 illustrated the projected volumes.

TABLE 6
SLUDGE PRODUCTION QUANTITIES

YEAR	PEAK DAY OF PEAK MONTH FLOW (MGD)	PEAK MONTH AVE DAILY FLOW (MGD)	SLUDGE LBS BASED ON AVE DAILY FLOW	-----GALLONS------			CU.YD
				@.75%	@2.5%	@25%	@25%
1996	1.659	1.286	2,789	44,588	9,555	1,338	6.6
1997	1.699	1.317	2,856	45,659	9,784	1,370	6.8
1998	1.863	1.444	3,131	50,056	10,726	1,502	7.4
1999	1.998	1.549	3,359	53,701	11,507	1,611	8.0
2000	2.133	1.654	3,587	57,346	12,288	1,720	8.5
2001	2.268	1.758	3,812	60,943	13,059	1,828	9.1
2002	2.393	1.855	4,022	64,301	13,779	1,929	9.6

The above projections are for the peak day. However, meeting peak day demand is not , since the aerobic sludge digester will have 40 days storage and the volume of the sludge will be reduced during the summer when the flows are only 50% of the winter flows

and the sludge generation will be less. Another factor that allows phasing is the sludge projection which is based on 100% of BOD_5 removed, the sludge produced may be 60 to 80% of BOD_5 removed which would reduce the critical peak day requirements. For comparison, Table 8 considers the hours of operation of the thickening and dewatering equipment. The JCE Study recommends using centrifuges to thicken and dewater. The equipment is enclosed and will not generate odors, and the same equipment can be used for thickening and dewatering by changing the feed rate. By the way, the centrate liquid removed by the centrifuge will be pumped to the headworks for treatment.

TABLE 8
CENTRIFUGE USAGE
AVERAGE DAY OF PEAK MONTH

USAGE OF TWO CENTRIFUGES FOR THICKENING AND DEWATERING		
YEAR	FLOW mgd	HOURS PER WEEK
1996	1.286	25.4
1997	1.317	26.0
1998	1.444	28.5
1999	1.549	30.6
2000	1.654	32.7
2001	1.758	34.7
2002	1.855	36.7

Table 8 is a derived by combining the thickening and dewatering time and dividing by two, the number of centrifuges in

the first phase. Two centrifuges can suffice until the year 2000. At this point if one centrifuge is down for a long period of time, then even a double shift will not be able to keep up with the thickening and dewatering requirements since two hours are required daily to switch the remaining centrifuge from thickening to dewatering and one hour is needed per shift for routine cleaning and maintenance. Thus a third centrifuge should be purchased and installed. The three centrifuges will suffice for full capacity requirements.

AEROBIC SLUDGE DIGESTION

Aerobic sludge digestion is required to stabilize the sludge for disposal. EPA 503 regulations require 40 days to allow disposal on agricultural land. Although permitting is required, land disposal may prove cheaper than landfill disposal and this option is reserved. Since the quantity of sludge will increase with time, it is possible to phase the aerobic digestion portion of the project. JCE proposes using three tanks, building all the tanks now, but equipping only two. This will result in phasing one blower, diffuser equipment, and mixer equipment to the future. Again, the year 2000 is projected for the second phase.

FILTRATION

There are two filters proposed in the JCE report. Filter media has a finite life. After a period of a few years, the media need to be replaced. One filter can handle the entire flow of the plant, especially if the second filter is out of commission during the summer when the flows are lower. It is possible, however, that the

automatic backwashing mechanism could break down during a peak flow period. If this occurs, one filter could operate properly over a period of time. Since the spare filter is needed for standby at all times, there is no opportunity for phasing.

UV DISINFECTION

UV disinfection can be phased by adding additional lamps and ballasts when flows increase. The phasing is again scheduled for the year 2000. The concrete channels will be constructed, the additional lamps and ballasts will be added in the future.

FINE SCREENS

The fine screens are sized for the peak flow during the peak day and have a standby manual screen if the flows exceed the peak. The plan is to install one fine screen and one manual screen together with the screening dewatering and disposal storage system. A second fine screen will be added in the future.

OTHER ELEMENTS

The influent metering, odor control, operations building, and standby generator do not lend themselves to phasing. They will be constructed for the full capacity. Also, the sitework, piping, and electrical controls will be installed for full capacity, to allow the phased equipment to be installed without interfering with the operation of the plant.

SUMMARY

Table 9 applies costs to the phasing strategy explained above. The costs are taken from the JCE Pima Utility Preliminary Design Report. Estimated costs are adjusted for a 5% sitework, 15%

electrical, and 10% piping costs. The subtotal of the adjusted costs are further adjusted for contractor overhead and profit of 12%. The second subtotal is adjusted finally for 10% contingencies. Only the contractor overhead and profit and contingencies allowances were applied to the future phased cost since it is anticipated that all the sitework, piping and electrical work will be included in the original project.

TABLE 9
PROJECT COST AND PHASED COST

ITEM NO	DESCRIPTION	ESTIMATED COST	COST WITH ALLOWANCES	PERCENT	SIZING MGD	FUTURE COST YEAR 2000
1	Influent metering	$6,500	$10,400	0.13%	2.4	
2	Fine screens	$237,000	$379,600	4.62%	1.6	$32,000
3	Sequential Batch Reactors	$1,766,000	$2,828,400	34.39%	2.4	
4	Filtration	$474,000	$759,200	9.23%	2.4	
5	UV Disinfection	$298,000	$477,300	5.80%	1.6	$119,000
6	Aerobic Digestion	$663,100	$1,062,000	12.91%	1.6	$67,200
7	Thickening/Dewatering	$1,040,000	$1,665,700	20.25%	1.6	$300,000
8	Odor Control	$110,500	$177,000	2.15%	2.4	
9	Operations Building	$175,000	$280,300	3.41%	2.4	
10	Standby Generator	$365,500	$585,400	7.12%	2.4	
	TOTAL	$5,135,600	$8,225,300	100.00%		$518,200
	TOTAL FUTURE EQUIPMENT WITH ALLOWANCES (GENERAL AND CONTINGENCIES)					$638,422
	FIRST PHASE PROJECT					$7,586,878

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DOCUMENT CONTROL

OPERATION AND MAINTENANCE BUDGET
FOR
PIMA UTILITY COMPANY
AUGUST 1994

The following report defines the operation and maintenance budgetary requirements of the proposed Water Reclamation Facility. This facility is currently operated as an aerated lagoon, which is processing approximately 1.1 Million Gallons per Day (MGD). A new facility is under design that will have an ultimate capacity of 2.4 MGD. In the interest of minimizing the cost to the consumer the facility is being designed in phases. Many of the equipment units will not be installed until the flows increase to the facility and require the added capacity. The budget will have to be revised as these equipment units are placed into operation. It is anticipated that the new facility will treat a flow of 1.6 MGD when it is placed into operation.

The budget which is presented is for a facility that is processing 1.6 MGD and has the following treatment process:

- Metering
- Fine Screens
- Biological Treatment (using SBR technology)
- Filtration
- Ultraviolet Disinfection
- Aerobic Digestion
- Mechanical Solids Handling

The effluent that will be produced from this facility will meet the requirements for direct effluent reuse and effluent storage and recovery. Biosolids which are produced at the facility will be budgeted for disposal at the Maricopa County Landfill in Queen Creek. This budget does not establish a value for the effluent which is produced at the facility.

Because the final design of equipment and facilities has not been performed it is necessary to estimate some of the costs associated with power and chemicals. The estimate of horsepower that is listed in the design report will be used until the equipment units are finalized. Because the value of this line item is so large it is recommended that it be revised as more detailed information is available.

The major areas of budgeting are listed by program area. Because the facility has been designed to operate as efficiently as possible the fixed costs of the budget can be defined as follows:

- **Personnel Services** - salaries, accounting wages, pension plan expense, overtime, holiday, retirement, social security, Medicare, workman's comp, group health insurance program, group life insurance, long term disability insurance, federal and state unemployment insurance, dental insurance.
- **Contractual Services** - consultants, telephone and telegraph, general insurance, legal and accounting, regulatory commission, test year 87 rate costs, bank charges, computer timesharing, rent, bad debts, amortization of computer costs, amortization of reuse permit, property taxes, and deferred income taxes, ground lease, lab testing.
- **Commodities** - laboratory supplies, office supplies, clothing, janitor and sanitation, plumbing, communications equipment, oil and lubricants, small tools and equipment, postage.

The variable costs of the budget can be defined as follows:

- **Personnel Services** - estimated salary savings
- **Contractual Services** - electricity, transportation, groundwater fee, water, landfill fee
- **Commodities** - process chemicals

By dividing the budget into fixed and variable costs the impact of increased flows and loading to the treatment plant can be properly factored into the fees that are charged for wastewater services and irrigation water delivered. It is recommended that a fee schedule be developed that will recover the cost of providing the irrigation water that is delivered to the development. In addition the value of the effluent that is recharged should be considered in the overall development of a new rate structure for the utility.

The attached table defines the line item allocations that are recommended for the budget. Because I do not have adequate information regarding many of the accounting and administrative charges, those items should be completed by your financial and management staff.

If you have any questions regarding this information please feel free to contact me.

Thank You,

Paul Hendricks

Paul Hendricks
EUSI

sunbudg

PERSONNEL SERVICES:

SALARIES

It is recommended that one full time operator be assigned to the facility. In addition the Operations Manager should be allocated a portion of their time for this facility. I recommend 25% of the managers time be allocated to this facility. The facility will need to have a part time laborer to assist with ground and building maintenance. I recommend 8 hours per week. When the plant is increased to 2.4 MGD it is recommended that an additional operator be assigned to the facility.

1.6 MGD
Operation Manager- 520 hr. @ $55,000/2080 hr. per yr.($26.44)= $ 13,750.00
Plant Operator- 2080 @ $16.96 per hr.= $ 35,276.00
Laborer- 8 hr./wk x 4.3 wk./mo. x 12 mo. x $7.50 per hr= $3,096.00

total $52,122.00

2.4 MGD
Operation Manager- 520 hr. @ $55,000/2080 hr. per yr.($26.44)= $ 13,750.00
Plant Operator-2 @ 2080 @ $16.96 per hr.= $ 35,276.00
Laborer- 8 hr./wk x 4.3 wk./mo. x 12 mo. x $7.50 per hr= $3,096.00

total $87,398.00

OVERTIME

It is recommended that 10% of the operators salary be allocated for overtime during the first year of operation.

1.6 MGD

total $3,527.00

2.4 MGD

total $7,055.00

Although I do not have the exact information on the benefit package for the employees it is estimated that the labor burden is 25%. This added cost would result in a budget allocation of:

1.6 MGD

total $13,912.00

2.4 MGD

total $23,613.00

HOLIDAY

I do not have the information on the number of holidays that are paid.

PENSION

I do not have the information on the pension system.

FICA

This is a standard benefit that the finance department can calculate.

MEDICARE WITHHOLDING

This is a standard benefit that the finance department can calculate.

INDUSTRIAL INSURANCE

This is a standard benefit that the finance department can calculate.

GROUP HEALTH INSURANCE

This is a standard benefit that the finance department can calculate.

GROUP LIFE INSURANCE

This is a standard benefit that the finance department can calculate.

LONG TERM DISABILITY

This is a standard benefit that the finance department can calculate.

FEDERAL AND STATE UNEMPLOYMENT

This is a standard benefit that the finance department can calculate.

DENTAL OR EYE INSURANCE

This is a standard benefit that the finance department can calculate.

ACCOUNTING WAGES

This is a line item that the finance department can calculate.

CONTRACTUAL SERVICE:

CONSULTANTS

During the initial stages of operation the design consultant can be retained to provide ongoing assistance as a part of their construction services and warranty support. It is recommended that this item be placed in the scope of work for the design consultant. To cover other items that may arise relating to the water reclamation system operation it is recommended that $5,000.00 be placed in this category to cover items relating to permitting.

1.6 MGD

total $5,000.00

2.4 MGD

total $7,500.00

TELEPHONE AND TELEGRAPH

It is recommended that an allocation of $1,500.00 be assigned to the telephone service to cover the cost of leased lines for the alarm systems that will be installed in the new facility. In addition the general phone service should be budgeted at $750.00.

1.6 MGD

total $2,250.00

2.4 MGD

total $3,375.00

WATER

The new facility will use water for chemical make up as well as general sanitary purposes. It is recommended that the water service budget be established at $3,000.00 initially. This value can be adjusted when the facility has been in operation and has developed a record of consumption. This figure can be adjusted for seasonal flow variations instead of establishing it at an average flow throughout the entire year. The value can be adjusted by 77%.

1.6 MGD

total $2,310.00

2.4 MGD

total $3,465.00

GAS

I do not know if there will be gas service to the facility. No allocation is recommended at this time.

ELECTRICITY

This item is the single largest contractual service item at the facility. The budget for this item should be revised when the actual equipment items are selected and the operating history can be predicted. At this point the budget is based upon the horsepower defined in

the design report. I have listed budgets for similar operating facilities as a background reference.

City of Avondale 1.2 MGD oxidation ditch- $225,000.00
City of Scottsdale 1.6 MGD extended aeration -$138,000.00

This cost does not include expenses associated with the collection system or effluent delivery and recovery systems.

The design engineer has defined the connected horsepower as 307 for the processing facilities. The centrifuge operates 7 hours per day five days per week. The ultraviolet disinfection unit uses 12.3 KW to treat the effluent prior to reuse or recharge. Using the standard formula of horsepower x hours x .748 hp/kwhr x $ 0.08 per kwhr= $_____ per year for electricity the cost is as follows:

- plant processing equipment- 307 hp x 24 hr/d x 365 day/yr. x .748 efficiency factor x $0.08 per Kwhr= $160,928.00
- ultraviolet disinfection- 12.3 Kw x 24 hr/d x 365 d/yr. x $0 08 Kwhr= $8,619.00
- centrifuge operation 150 hp x 7 hr/d x 5 d/wk x 52 wk/yr. x .748 x $0.08 Kwhr= $16,336.00

This figure can be adjusted for seasonal flow variations instead of establishing it at an average flow throughout the entire year. The value can be adjusted by 77%.

1.6 MGD

total $143,130.00

2.4 MGD

total $214,695.00

GENERAL INSURANCE

This is a cost that the finance department can calculate. The new facility has an estimated value of $8,900,000.00.

The insurance carrier has indicated that the premium for the facility will be:

1.6 MGD

total $25,000.00

2.4 MGD

total $37,500.00

ADMINISTRATIVE COSTS

This is a cost that the finance department can calculate.

OVERHEAD COSTS

This is a cost that the finance department can calculate.

LEGAL

This is a cost that the finance department can calculate.

ACCOUNTING

This is a cost that the finance department can calculate.

REGULATORY COMMISSION

This is a cost that the finance department can calculate.

TEST YR. 87 RATE COSTS

This is a cost that the finance department can calculate.

BANK CHARGES

This is a cost that the finance department can calculate.

COMPUTER TIME

This is a cost that the finance department can calculate.

RENT

This is a cost that the finance department can calculate.

BAD DEBTS

This is a cost that the finance department can calculate.

AMORTIZATION ON COMPUTER COSTS

This is a cost that the finance department can calculate.

AMORTIZATION ON REUSE PERMIT

It is recommended that these costs be defined based upon the information that Mr. Goldman is developing not only for the reuse permit but for the aquifer protection permit and the storage and recovery permit. This information is not available at this time.

PROPERTY TAXES

This is a cost that the finance department can calculate.

DEFERRED INCOME TAXES

This is a cost that the finance department can calculate.

GROUND LEASE

This is a cost that the finance department can calculate.

TRANSPORTATION

This is a cost that the finance department can calculate.

GROUNDWATER FEE

This is a cost that the finance department can calculate.

LABORATORY FEES

This budget item covers the cost of State Certified Laboratory testing related to operating permits at the facility. Because these permits have not been finalized the costs for this category are estimated based upon the costs experienced at other reclamation facilities.
The cost for this item is: $25,000.00
1.6 MGD

total $25,000.00

2.4 MGD

total $37,500.00

LANDFILL DISPOSAL FEES

The cost for this budget item is based upon the generation of 6 wet tons of biosolids per day. Under the current design the facility will produce 8 cubic yards of 25% dry material. This material will weigh 6 wet tons. The Maricopa County Landfill, which is located near Queen Creek, Arizona, will accept this material at a cost of $10.00 per wet ton. Therefore the cost for the ultimate disposal of biosolids will be:
6 ton/ day produced x 365 day/ yr. x 10.00 per ton = $21,900.00 (plus trucking)
The trucking cost for material is estimated at $200.00 per 20 cubic yard container. This is a cost of 20 yd container/8 cubic yards per day produced = 2.5 days per container. The annual cost will be 365/ 2.5 days per container x $200.00 per unit = $29,200.00.

Incidental screenings will be disposed of along with the dewatered biosolids. No extra cost is defined at this time.

This figure can be adjusted for seasonal flow variations instead of establishing it at an average flow throughout the entire year. The value can be adjusted by 77%.

1.6 MGD

total $39,347.00

2.4 MGD

total $59,021.00

COMMODITIES:

PROCESS CHEMICALS

The primary process chemical will be polymer which will be used to enhance the performance of the centrifuge during the thickening and dewatering operations.

This chemical can be purchased from a number of suppliers through a network of sales representatives. The budget price for this chemical is $2.00 per pound including freight. The centrifuge will use 4 pounds per dry ton of solids processed during the thickening mode and 15 pounds per dry ton of solids processed during the dewatering mode.

The facility will produce approximately 1.7 dry tons of solids per day at a flow rate of 1.6 MGD. When the flow rate is 2.4 MGD the sludge production will be 2.5 tons per day.

The chemical cost for thickening is:
$2.00/# polymer x 4 #/ton x 1.7 tons produced/day x 365 day/yr= $4,964.00

The chemical cost for dewatering is:
$2.00/# polymer x 15 #/ton x 1.7 tons produced/ day x 365 day/yr= $18,615.00

It is recommended that 4-100 # containers be budgeted for maintenance disinfectant to be used throughout the facility. The cost of this chemical is $400.00 per 100#.
4 containers @ $400.00 = 1,600.00

This figure can be adjusted for seasonal flow variations instead of establishing it at an average flow throughout the entire year. The value can be adjusted by 77%.
1.6 MGD

total $ 19,388.00

2.4 MGD

total $29,082.00

LABORATORY SUPPLIES

The facility will have a process control laboratory which can be used to analyze the performance of the facility. Because the analysis required under the regulatory permits must be performed by a State Certified Laboratory it is recommended that the on site laboratory be utilized for process control and optimization purposes only.

The chemicals and testing equipment for such a laboratory are estimated to cost $1,200.00.

1.6 MGD

total $1,200.00

2.4 MGD

total $1,800.00

OFFICE SUPPLIES

The facility will be supported by a central office at the Utility Headquarters. As a result the supplies for the facility will be basic in nature. The estimated cost is $250.00

1.6 MGD

total $250.00

2.4 MGD

total $375.00

CLOTHING

This cost is for uniforms used by personnel working at the facility. This is a cost that the finance department can calculate based upon current uniform contracts.

I recommend that the operator be provided a fresh change of clothing daily.

This is a cost that the finance department can calculate.

JANITOR AND SANITATION

The cost for this activity is associated with the general housekeeping at the facility. It is estimated that the cleaning and sanitation products will cost approximately $600.00

1.6 MGD

total $600 00

2.4 MGD

total $900.00

PLUMBING

This cost is for materials which are necessary to modify and repair general piping throughout the facility. During the first year of operation the piping will be under warranty. In many cases it is desirable to make minor modifications to piping to improve the effectiveness of chemicals and improve process operations. It is estimated that this item will cost $500.00

1.6 MGD

total $500.00

2.4 MGD

total $750.00

EQUIPMENT AND BUILDING IMPROVEMENTS/ MATERIAL TO MAINTAIN/REPAIR

This item covers the cost of repair and replacement of fixed assets at the facility. In normal cases the budget of this item should be set at 1% of the value of the equipment at the facility. If 2.5% is set aside in this account it should build a reserve that can be used to replace equipment when it has reached it's useful life. The replacement portion of this budget item can also be handled within a depreciation account.

It is recommended that a 1% allocation be established for the first few years of operation. The amount of this budget item is:
Estimated equipment cost (This item should be revised when the engineer completes the preliminary design documents.) $5,315,000.00 x 1%= $53,150.00
1.6 MGD

total $53,150.00

2.4 MGD

total $79,725.00

COMMUNICATION EQUIPMENT

This budget item covers hand held radios and the alarm system that will be provided for the facility. Because the design of the alarm system is not finalized the estimate for this item is: $1,500.00
1.6 MGD

total $1,500.00

2.4 MGD

total $2,250.00

OIL AND LUBRICANTS

This budget item covers the lubricants that are necessary to maintain the operating equipment at the facility. For a facility of this design and size the cost of this item is estimated at: $1,200.00
1.6 MGD

total $1,200.00

2.4 MGD

total $1,800.00

SMALL TOOLS AND EQUIPMENT

This item covers the incidental tools and items that are not included in the construction project. During the first two years this budget item should be at a higher than normal level to enable the plant staff to equip the facility with the required items.

Based upon the skill level of the plant personnel there may be a need to increase this allocation after a review of the first year's expenditures.

It is recommended that the first year allocation for this item be: $4,000.00

1.6 MGD

total $4,000.00

2.4 MGD

total $6,000.00

OTHER OPERATING SUPPLIES

This item is used as a miscellaneous category. I have not allocated any money for this category because it is a management policy issue to define allocations which are undefined.

POSTAGE

This is a cost that the finance department can calculate.

Pima Utility Company

Ray L. Jones Rebuttal Testimony

Exhibit RLJ –RB2

Pima Utility Company
Review of WRF Basis of Design
Prepared by ARICOR Water Solutions

Exhibit RLJ-RB2

Line		Goldman Report				Carollo
	Basis of Design:	Res	Comm	Total	Reference	Report
1	**Units Served (Build-out)**					
2	Platted Lots	9,289	n/a	9,289	Table 3	
3	Multi-Family Units	1,948	n/a	1,948	Table 3	
4	Total Units [Ln1 + Ln2]	11,237		11,237		
5	**Flows and Peaking Factors (Build-out)**					
6	Peak Day Flow (MGD)	2.169	0.224	2.393	Table 3	2.400
7	Factor - Peak Day/Max Month	1.17	1.17	1.17	Pg. 6	
8	Max Month Flow (MGD) [Ln5/Ln6]	1.854	0.191	2.045		
9	Factor - Max Month/Ann. Avg. Day	1.29	1.29	1.29	Table 2	
10	Annual Average Day [Ln7/Ln8]	1.437	0.148	1.586		1.600
11	**Unit Flows (Build-out)**					
12	Peak Day (GPDUPD) [Ln6/Ln4]	193	20	213		
13	Max Month (GPDUPD) [Ln8/Ln4]	165	17	182		
14	Annual Average Day (GPDUPD) [Ln10/Ln4]	128	13	141		
	Comparison of Design Unit Flow to Historic Metered Flows:					
15	1992 Annual Average Day (GPDUPD)	130	2	132	Table 1, 5,286 Units	
16	1993 Annual Average Day (GPDUPD)	125	2	127	Table 1, 5,613 Units	
17	Average of 1992 and 1993	128	2	130		
18	Difference from Basis of Design [Ln14-Ln17]	0	11	12		

Comparison of Published Design Factors to Design Factors Used by Pima:

	Published Residential Design Factors		
19	Persons per Dwelling Unit (Age-Restricted)	1.8	(AZ-AM 1.9, JU 1.8, Surprise 1.8)
20	Flow per Capita (Average Day)	80	(ADEQ and multiple providers)
21	Age-Restricted Residential Avg. Day (GPDUPD)	144	[Ln 19xLn 20]
	Pima Residential Design Factors		
22	Pima Unit Design Flow	128	[Ln14]
23	Pima Unit Design Flow - Percent of Published	88.8%	[Ln 22/Ln 21]

	Commercial Design Factors				
24	Commercial Typical Design Factor	20 gpd/empl.	ADEQ	Acres to Equal 0.148 MGD Used by Pima	
25	Commercial Typical Design Factor	1,500 gpd/Ac	AZ-AM	98.9	acres
26	Commercial Typical Design Factor	1,000 gpd/Ac	JU	148.4	acres

Discussion:

Capacity of the Pima Utility Company WRF was determined in 1994 pursuant to design reports prepared by Fred Goldman & Associates and John Carollo Engineers. The reports based their design flows on historically measured wastewater flows for calendar years 1992 and 1993.

The residential unit flow design factors used are about 89% of published residential unit flow design factors for new age-restricted developments today. In 1994, the Pima Utility Company service area was at approximately 50% of build-out with little commercial development. Commercial flows were estimated at approximately 10% of residential flows. The estimated build-out commercial flow of 0.148 MGD represents 100 to 150 acres of commercial development using published commercial design factors.

Conclusion:

The residential unit flow design factors and peaking factors were appropriate design factors to use the age-restricted Sun Lakes community based on information available in 1994. Commercial flows were appropriately estimated at approximately 10% of residential flows. Both residential and commercial flow factors are less than factors published for use during planning of age restricted communities today.

Pima Utility Company

Ray L. Jones Rebuttal Testimony

Exhibit RLJ –RB3

Pima Utility Company

Prepared by ARICOR Water Solutions

Line	Unit Counts:	Residential Units			Customer Counts		
		Platted (SF)	Multi-Family	Total	Residential	Commercial	Total
1	Actual End of Test Year*	9,946	400	10,346	9,946	105	10,051
2	Projected Growth to Build-Out	55	300	355	55	29	84
3	2010 Projected Build-Out Units	10,001	700	10,701	10,001	134	10,135
4							
5	1994 Projected Build-Out	9,289	1,948	11,237	Table 3, Goldman Report		
6							
7	Difference (1994 to 2010)	712	(1,248)	(536)			
8	Percent Difference	7.66%	-64.07%	-4.77%			

9 * Multi-family units are master metered commercial accounts. The current 400 MF units equal 13 commercial accounts.

Discussion:

Current projected Pima Utility build-out unit counts are within 4.77% of the unit counts projected in 1994 and used for sizing the Pima Utility Company WRF. The minor reduction in unit counts is the result of planned multi-family units being replaced with lower density single family homes.

Demographic Changes:

Population per Unit

		Data Source, Coverage and Year					
		U.S. Census Sun Lakes CDP 2000	ADWR Pima Utility 1995	U.S. Census Sun Lakes CDP 2000	U.S. Census Sun Lakes CDP 2010	2000-2010 Change	2000-2010 Percent Change
10	Population	6,578	9,916	11,936	13,975	2,039	20.6%
11	Dwelling Units	4,356	6,552	7,746	10,028	2,282	34.8%
12	Persons per DU	1.51	1.51	1.54	1.39	(0.15)	-9.7%
13							
14	Vacant DUs			1,063	1,810	747	70.3%
15	Occupied DUs			6,683	8,218	1,535	23.0%
16	Person per Occ. DU			1.79	1.70	(0.09)	-4.8%

Discussion:

Population per unit has declined since the Pima WRF was sized in 1994. The decline can be attributed to a dramatic increase in vacant units as a percentage of total units and a significant decrease in persons per occupied unit. These significant demographic changes can be expected to cause reduced average sewage flows and reduced peak sewage flows.

Pima Utility Company

Ray L. Jones Rebuttal Testimony

Exhibit RLJ –RB4

Pima Utility Company
Historic Flows and Projection of Build-Out Flows
Prepared by ARICOR Water Solutions

Exhibit RLJ-RB4

Line	Historic Unit Flows & Peaking Factors		Unit Flows				Peaking			
	2010 Test Year	Metered Flow (MGD)	Unit Flow (gpd)	Design Unit Flow (gpd)	Change from Design	Percent Change	Peak Factors	Design Peaking Factors	Change from Design	Percent Change
1	Annual Average	1.041	101	141	(40)	-28.7%	1.00	1.00	-	0.0%
2	Avg. Day Max Month	1.228	119	182	(63)	-34.8%	1.18	1.29	(0.11)	-8.6%
3	Peak Day	1.438	139	213	(74)	-34.7%	1.17	1.17	0.00	0.1%
4					Combined Peak Factor		1.38	1.51	(0.13)	-8.5%
5	2007 Calendar Year									
6	Annual Average	1.062	103	141	(38)	-27.2%	1.00	1.00	-	0.0%
7	Avg. Day Max Month	1.272	123	182	(59)	-32.4%	1.20	1.29	(0.09)	-7.1%
8	Peak Day	1.738	168	213	(45)	-21.0%	1.37	1.17	0.20	16.8%
9							1.64	1.51	0.13	8.5%

Discussion:
Recent per unit wastewater flows are lower than the historic flows used to size the Pima WWTP in 1994. The decrease is believed to be primarily due to demographic changes, including the impact of declines in population per unit and the increased use of water conserving plumbing fixtures and appliances. The flow and peaking factors are highly variable from year to year with the 2010 test year having the lowest flow and the 2007 calendar year having the highest flow from the period 2005-2011. Population per unit and housing unit vacancy rates can be expected to fluctuate over time, possibly causing increases to peak flow rates in the future.

Comparison of Design Peak Day Flow to Projected Peak Day Flows Using 2007 and 2010 Flows

	Projected Peak Day Flow	Build-Out Units	Peak Day Unit Flow (gpd)	Peak Day Flow (MGD)	Percent of Design Flow
10	Using 2010 Test Year Factors	10,701	139	1.487	62.15%
11	Using 2007 Calendar Year Factors	10,701	168	1.801	75.25%
12	Using 1994 Design Factors (92-93 Average)	10,701	213	2.279	95.23%

Discussion:
Since actual recorded peak day flows vary significantly from year to year and over time due to demographic changes, projected peak day wastewater flows vary significantly depending upon what data set is used to project the flows.

Pima Utility Company

Ray L. Jones Rebuttal Testimony

Exhibit RLJ –RB5

Pima Utility Company
Quantification of Impacts of Factors Affecting Wastewater Flows
Prepared by ARICOR Water Solutions

Exhibit RLJ-RB5

Detailed Analysis of Impacts:

Line		2007 Calendar Year Data				2010 Test Year Data			
	Impact of Reduced Unit Counts		**Reduction in Build-out Units**	**Design Unit Flow**	**Projected Total Flow (MGD)**		**Reduction in Build-out Units**	**Design Unit Flow**	**Projected Total Flow (MGD)**
1	Design Peak Day Flow (MGD)				2.393				2.393
2	Reduction in Build-out Units		(536)	213	(0.114)		(536)	213	(0.114)
3	Adjusted Peak Day Flow (MGD)				2.279				2.279
	Impact of Reduced Unit Flows	**Build-Out Build-Out**	**Avg Day Decrease**	**Peaking Factor**	**Projected Residential Flows (MGD)**	**Build-Out Units**	**Avg Day Decrease**	**Peaking Factor**	**Projected Total Flow (MGD)**
4	Adjusted Peak Day Flow (MGD)				2.279				2.279
5	Reduction in Unit Flow	10,701	-38	1.51	(0.619)	10,701	-40	1.51	(0.653)
6	Adjusted Peak Day Flow (MGD)				1.660				1.626
	Impact of Changing Peaks	**Build-Out Units**	**2007 Unit Flow**	**Peak Factor Reduction**	**Projected Residential Flows (MGD)**	**Build-Out Units**	**Test Year Unit Flow**	**Peak Factor Reduction**	**Projected Total Flow (MGD)**
7	Adjusted Peak Day Flow (MGD)				1.660				1.626
8	Reduction in Peaking Factor	10,701	103	0.13	0.141	10,701	101	-0.13	(0.138)
9	Projected Peak Day Flow (MGD)*				1.801				1.487
10	* ACC Staff projected 1.449 MGD Peak Day Flow based customer count analysis.								

	Summary of Impacts:	**Projected Peak Day Flow (MGD)**	**Percent Change**	**Projected Peak Day Flow (MGD)**	**Percent Change**
11	1994 Design Peak Day Flow	2.393		2.393	
12	Impact of Reduced Units	(0.114)	-4.77%	(0.114)	-4.77%
13	Impact of Reduced Unit Flows	(0.619)	-25.86%	(0.653)	-27.29%
14	Impact of Changing Peaks	0.141	5.88%	(0.138)	-5.78%
15	Projected Peak Day Flow	1.801	-24.75%	1.487	-37.85%

Discussion:

Due to shifting demographic patterns since 1994, including increased vacancy rates, decreased persons per home and increased water conservation, unit flows have decreased substantially. When compared to 1994 design flows, reduced unit flows caused a 25.86% reduction in projected peak day flow in 2007 and a 27.29% reduction in projected peak day flow in 2010. Changes to peaking factors caused a 5.88% increase in projected peak day flow in 2007 and a 5.78% decrease in projected peak day flow in 2010. The shifting demographic patterns cause a combined reduction of 19.98% to projected peak day flow in 2007 and a combined reduction of 33.08 to projected peak day flow in 2010. The changing demographic factors account for nearly all of the total reduction in the projected peak day flow since 1994, with reduced unit counts being responsible for a minor portion of the reduction.

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Attorneys for Pima Utility Company

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF PIMA UTILITY 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-02199A-11-0329
IN THE MATTER OF THE APPLICATION OF PIMA UTILITY 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-02199A-11-0330

REBUTTAL TESTIMONY OF

MARC L. SPITZER

April 27, 2012

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I. INTRODUCTION AND PURPOSE OF TESTIMONY.

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Marc L. Spitzer. My business address is 1330 Connecticut Avenue, NW, Washington, DC 20036.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. On behalf of the Applicant Pima Utility Company ("Pima" or the "Company").

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am a partner in the Washington, D.C. office of Steptoe & Johnson LLP, where I am a member of the Regulatory & Industry Affairs Department. My current law practice is in the area of Federal and State utilities regulation.

Q. WHAT WAS YOUR EMPLOYMENT BACKGROUND BEFORE BECOMING A PARTNER AT STEPTOE & JOHNSON?

A. I have been an attorney and member of the State Bar of Arizona since 1982. My law practice largely involved the representation of taxpayers in proceedings against the Internal Revenue Service. I practiced law continuously from 1982 through 2006, and I was certified as a Specialist in tax law by the State Bar of Arizona from 1986 through 2006.

In 1992, I was elected to the Arizona State Senate where I served as chair of the Senate Judiciary and Finance committees, and in 1996-1997 I served as Senate Majority Leader. In 2000, I was elected to the Arizona Corporation Commission, where I served until 2006. President George W. Bush nominated me to the Federal Energy Regulatory Commission ("FERC") in 2006. I was confirmed by the United States Senate on July 14, 2006 and I served on FERC until December 2011. Further details regarding my background are detailed in my curriculum vitae attached as Exhibit MLS-RB1.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. I am testifying as an expert witness in support of Pima's request to recover income taxes as part of its cost of service.

Q. WHAT MAKES YOU AN EXPERT ON THE SUBJECT MATTER?

A. My background in taxation and utilities regulation qualifies me as an expert on the question of the income tax allowance as a cost of service for a regulated utility. I am qualified to address the income tax allowance for pass-through entities based upon 25 years as a tax lawyer, service on the Arizona Corporation Commission and FERC. The income tax allowance issue lies at the intersection of regulatory policy and substantive tax law. At FERC, I had taken a great interest in this issue. I believe the income tax allowance is essential to FERC's mission to ensure a reliable supply of energy to the people of the United States at just and reasonable rates.

Q. HAVE YOU REVIEWED THE TESTIMONY OF THE PARTIES IN THIS RATE CASE?

A. I have reviewed testimony related to the issue of whether Pima, which is an S corporation, should be allowed to recover income taxes as part of its cost of service. In preparing this testimony, I have also reviewed statutes, regulations, treatises, administrative and judicial decisions, and scholarly articles on the theory of income taxation and the regulatory policies underlying the income tax allowance, as discussed below.

Q. WHAT IS YOUR EXPERT OPINION REGARDING THE RECOVERY OF INCOME TAXES BY PIMA AS PART OF ITS COST OF SERVICE?

A. It is my opinion that the income reported by Pima on Form 1120S creates an income tax liability that constitutes a cost of service that should be included in the revenue requirement.

II. LAW AND POLICY.

Q. PLEASE SUMMARIZE YOUR TESTIMONY ON THE INCOME TAX ALLOWANCE ISSUE.

A. This testimony is focused on the question of whether Pima should receive an income tax allowance as a component of its cost of service. It is unquestionably true that Pima generates taxable income and that its shareholders pay tax on that income *pro rata.* It is also true that FERC has carefully considered the issue of tax allowances for pass-through entities in regulated ratemaking. FERC's approval of the income tax allowance as a cost of service for pass-through entities has been upheld by the United States Court of Appeals for the D.C. Circuit. I was on FERC when those matters came before it and I helped develop the underlying record and the response to the Appeals Court's rulings, as explained below.

Section II.A below discusses why Pima, and privately held businesses generally, operate as "pass-through" entities so that income taxes are paid only once, at the investor level. A business' decision to form and operate as a pass-through entity is legal. The IRS and state taxing authorities are familiar with the structure, the tax law is clear on their treatment, and the economic reasons for such an election are sound. Pass-through entities attract startup capital more readily and they avoid double taxation. There is no reason—economic, legal, or from a tax perspective—for this Commission to discourage a pass-through business structure by artificially suppressing the rates of pass-through entities.

Section II.B explains why an income tax allowance for pass-through entities is not a recovery of "phantom" income taxes. "Phantom tax" is the epithet used by opponents of the income tax allowance to describe the way in which partnerships, limited liability companies and S corporations (like Pima) file income tax returns. I explain below how these opponents ignore the distinction between income tax

liabilities (which are generated by income) and income tax payments (which are based on a myriad of factors, many of which I will discuss below.)

These opponents also misstate and mischaracterize tax law in order to make it appear that the shareholders somehow avoid taxes—this is simply not accurate. Based on my experience and expertise on the issue, I address the flaws of that argument from a tax law, utility ratemaking, capital attraction, and fairness standpoint. Put simply, the phantom income tax argument fails because it confuses the recognition of income with the payment of tax.

Section II.C below discusses the public policy rationale for the income tax allowance for regulated utilities operating as pass-through entities. In that section, I also explain why Arizona should adopt the income tax allowance for pass-through entities as a matter of policy and fairness for regulated utilities. I explain why it will assist in the attraction of capital, will avoid exposing customers to higher tax rates, and will allow entities to make corporate structure decisions based on business and tax issues, rather than quirks in regulatory rate recovery.

A. <u>The Pass-Through Entity.</u>

Q. WHAT IS A PASS-THROUGH ENTITY?

A. The Internal Revenue Code (the "Code") governs the income tax consequences of the form in which an entity does business. Subtitle A of the Code is entitled "Income Tax," and Chapter 1 covers "Normal Taxes." Within Chapter 1 are the various forms in which an entity conducts business. Thus, Subchapter F governs exempt organizations, Subchapter I, estates and trusts, and Subchapter T provides for the taxation of cooperatives. The most familiar subchapters are C (corporations), K (partnerships), S (S corporations), and limited liability companies or LLCs.

With modest exceptions, an S corporation files Form 1120S (an "informational return") but pays no tax at the corporate level. Instead, its shareholders recognize taxable income *pro rata* on their individual income tax returns via Forms K-1 issued by the corporation.[1]

In contrast, Subchapter C corporations report net income **and pay tax** at the corporate level on Form 1120. Tax is imposed upon shareholders only to the extent dividends are distributed. A company whose income (or loss) is reported at the investor level is described as a "pass-through" entity. In some discussions of pass-through entities, the LLC, partnership or S corporation is described as the first tier entity and the investors pay tax at the "second" tier on their *pro rata* share of first tier income.

Most businesses operate as an entity that limits liability to business assets, thus protecting the personal assets of their investors. S corporations are corporations for state law purposes, including those aspects of limited liability.[2]

Q. IS PIMA'S STRUCTURE IN LINE WITH THE CODE?

A. It is. In 1972, Pima was formed as a Subchapter S corporation. (In 1984 the Code was amended to change the term simply to "S corporation.")

Q. IN RETROSPECT THEN, DOES PIMA'S 1972 DECISION TO FORM AS AN S CORPORATION MAKE SENSE?

A. It does. In 1972, the S corporation was the principal pass-through alternative to the C corporation taxed at the corporate level. Subsequently, amendments to Arizona's Limited Partnership Act (1997)[3] and the enactment of the Arizona Limited Liability Partnership Act[4] in 1994 created viable pass-through alternatives

[1] I.R.C. § 1361 *et seq.*
[2] A.R.S. § 10-622B.
[3] A.R.S. § 29-301 *et seq.*
[4] A.R.S. § 29-1101 *et seq.*

to the S corporation. But with the Legislature's adoption of the Limited Liability Company Act in 1992,[5] LLCs became the preferred choice of entity for business operations.

Q. HAVE THERE BEEN CHANGES TO TAX LAWS THAT ADDRESS THE DIFFERENT TAX ISSUES BETWEEN C CORPORATIONS, S CORPORATIONS, AND LLCs?

A. There have been. The enactment by Congress of the Tax Reform of 1986 (the "1986 Act") made a compelling case for pass-through income tax status. First, Federal income tax rates had traditionally been higher for corporations than individuals, and the 1986 Act reversed this historical trend by reducing the marginal individual income tax rate from 50% to 28%. Although the marginal corporate rate was also lowered (from 46% to 34%), for the first time in two generations individual income tax rates were lower than corporate rates. Second, prior to the 1986 Act, a corporation could make a tax-free liquidating distribution to its shareholders upon a sale of its assets.[6]

Q. HOW DO THOSE CHANGES TO THE 1986 ACT AFFECT PIMA?

A. Each of the changes affects Pima. The first change has meant that pass-through entities like Pima face a lower ultimate tax rate than C Corporations—which is good for customers. The 1986 Act's repeal of the *General Utilities* doctrine imposes tax and administrative burdens on C corporations not borne by pass-through entities. Ratepayers served by pass-through entities need not endure such costs.

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[5] A.R.S. § 29-601 *et seq.*

[6] *See General Utilities & Operating Co.*, 296 U.S. 200 (1935).

Q. DO STAFF AND RUCO ACKNOWLEDGE THAT THE UTILITY INCOME PASSED THROUGH TO THE SHAREHOLDERS OF AN S CORPORATION UTILITY IS SUBJECT TO TAX?

A. Yes. Neither party denies that the income passed through to the shareholders of an S corporation is subject to tax. So, the argument that an S corporation does not pay taxes rests on a technical distinction rather than reality. The income tax the shareholders of an S corporation are subject to arises directly from the taxable income of the S corporation, just as the income tax a C corporation is subject to arises directly from the taxable income of the C corporation. Taxes on this income are an inevitable business outlay regardless of the entity's legal form. In this respect, income taxes of a pass-through entity are just as much a cost of service as depreciation, salaries and wages, and purchased power. Staff recognized this to be true more than 20 years ago.[7]

Q. ON PAGE 5 AND 6 OF HIS DIRECT TESTIMONY, MR. RIGSBY ASSERTS THAT THE SHAREHOLDERS OF PIMA MADE THE ELECTION AS AN S CORPORATION AND, THEREFORE, THAT JUSTIFIES THE DENIAL OF AN INCOME TAX ALLOWANCE. PLEASE COMMENT.

A. To begin with, that argument ignores the fact that when Pima made the corporate structure choice, the Commission did not deny S corporations tax expense recovery; that policy was adopted over a decade later. It also ignores the FERC Policy Statement, FERC Orders and a decision of the U.S. Court of Appeals (D.C. Circuit) that disprove and undermine this argument. Finally, it ignores the consequences to the attraction of capital, the cost of capital, and the misuse of

[7] *See* Staff's Exceptions to Hearing Officer's Proposed Opinion and Order (filed December 29, 1987, in *Consolidated Water Utilities, Ltd.*, Docket Nos. E-1009-86-216, E-1009-86-217 & E-1009-86-332 (consolidated)) at 6:18-22.

regulatory policy to senselessly punish tax efficiency to the detriment of ratepayers.

B. <u>There is No Such Thing as a Phantom Income Tax.</u>

Q. HOW DO YOU RESPOND TO RUCO'S ARGUMENT THAT PIMA UTILITY DOES NOT FACE ACTUAL TAXES, BUT RATHER THESE ARE SOME SORT OF "PHANTOM" TAXES?

A. It is argued in this case that Pima should not receive an income tax allowance because, as a pass-through entity, it does not pay taxes. Since tax is imposed at the investor level, so the argument goes, the income tax allowance is not appropriate as a "cost" because the income tax is "phantom."

This argument fails because it confuses the recognition of income with the payment of tax. Income determines tax liability and Pima generates taxable income and, therefore, income tax liability. Pima generates that income from the provision of utility service to its customers. Pima is entitled to recover the costs incurred in the provision of utility service. The fact that the pass-through structure allows the income tax liability generated by Pima to be paid by its shareholders does not change the fact that those taxes are a cost of service. The very concept of a "phantom" tax for pass-through entities ignores the nature and purpose of the income tax.

Q. CAN YOU PROVIDE EXAMPLES OF THIS ISSUE?

A. The phantom tax argument is based on the ill-conceived notion that income tax liability is not actually incurred by a pass-through entity, but is somehow invented or concocted out of thin air. As noted above, however, Pima actually incurs a tangible income tax liability on the income reported on IRS Form 1120S, and taxes are paid *pro rata* by its investors, all in providing utility service to customers.

RUCO hinges its argument on the notion that the tax liability incurred by Pima is phantom or illusory because Pima does not actually pay the taxes. Thus, as

the argument goes: if Pima doesn't pay the taxes, then Pima's ratepayers should not be burdened with the income tax adjustment. That is incorrect—income taxes paid are always an annual amalgamation of items of recognition, exclusion, offsets, deductions, and credits. In fact, the most common scenario is for the tax liability generated by the income of a company or individual to be different than the taxes actually paid by the company or individual in any one year.

The following examples illustrate why there is no such thing as a phantom income tax and why basing the recovery of tax expense on the question of who pays the tax is a red herring. The distinction between the accrual of an income tax liability and the actual payment of income tax is common.

1. Taxpayer A earns $20,000 in income, but during that tax year she purchases and installs solar panels on her roof, earning a $20,000 tax credit. Taxpayer A would file a Federal income tax return reporting an income tax liability of zero.
2. Corporation B is a natural gas production company. Due to the low price of natural gas, the company reports negative $10,000 in taxable income for 2011 ($10,000). In 2012, Corporation B reports positive $10,000 taxable income. The company carries forward the $10,000 loss to offset income in 2012, and pays zero tax for 2012.
3. Partnership Joint Venture C operates wind turbines that generate electricity for sale into the wholesale market. The joint venture earns $20,000 in net revenues from power sales, but the Federal Wind Production Tax Credit generates an income tax credit of $20,000. Joint Venture C files an income tax return reporting zero income tax liability.
4. Taxpayer D owns a rental property on the Gulf Coast. The property is destroyed by a hurricane, and Taxpayer D receives a check for $100,000

from her insurance company as compensation for the loss. That same year she purchased another rental property (this time in Kansas) for $100,000. Under Code Section 1033, Taxpayer D pays zero tax on the $100,000 received from the insurance company.

5. Corporation E is a regulated electric utility that is a wholly owned subsidiary of a large energy company, Corporation F. The utility Corporation E earns $10,000,000 from operations in State X. Corporation F located in State Y has a disastrous year, loses $100,000,000 and files for bankruptcy protection. Corporation F files a consolidated corporate income tax return with its subsidiary Corporation E, reports a net loss and pays zero in corporate income taxes.

The point is that in each of the five examples listed above, Congressional public policy, reflected in the Code, creates a circumstance in which income is earned, income tax liability is incurred, but no payment of income tax is required. Put another way, these examples show that just because income tax is not paid does not mean that the income tax is non-existent as a cost of doing business.

Q. SO ENTITIES CAN HAVE NET INCOME, HAVE REAL TAX LIABILITIES, AND STILL NOT ACTUALLY PAY TAXES?

A. Yes. This makes sense when one bears in mind that the Tax Code is about much more than recovering a portion of income to fund government operations. The Tax Code is just as much an attempt to shape the economy and to incent (and disincent) certain activities. So companies and individuals make choices that change their tax payments, but they still have income and that income still gives rise to income tax liabilities.

Q. WHY SHOULDN'T THE COMMISSION SIMPLY EVALUATE WHETHER A TAX IS PAID AND BASE RECOVERY ON THE ANSWER TO THAT QUESTION?

A. Under the present policy, the Commission has incented utilities to select C corporation status simply because of its unwillingness to allow tax recovery for pass-through entities. This is one of my main objections to the discriminatory tax treatment imposed on pass-through entities: the effect of that discriminatory treatment is to discourage the use of legitimate, legal, useful, and lower-cost business structures, which has the further effect of increasing costs to customers, reducing the utility's opportunity to attract capital, and limiting the potential for new infrastructure in Arizona. The question is whether the provision of utility service generates a tax liability – period. The Commission does not, nor should it, change the rates of utilities operating as C corporations based on the actual tax expense of their parent holding companies. Nor should the Commission discriminatorily prohibit Pima and other pass-through entities from recovering their reported income taxes.

Q. SO HOW DOES THE IRS DETERMINE TAXABLE INCOME?

A. Please bear with me, but herein we establish that the income reported by Pima on Form 1120S and K-1s issued to its shareholders is real. Tax law and metaphysics are not often associated. However, there is a subjectivity inherent in the taxation of income[8] that does not exist with property taxation (a tax imposed upon the value of real or personal property at a given point in time), or sales, use, transaction

[8] The nature of income is far from clear as a matter of economics. Henry C. Simons, Personal Income Taxation: The Definition of Income as a Problem of Fiscal Policy (1938). The so-called Haig-Simons definition of income as an economic construct is the sum of a person's personal expenditures plus (or minus) the increase (or decrease) in the taxpayer's wealth. *Id.* The Haig-Simons definition has been debated and critiqued to this day. *See, e.g.*, Boris I. Bitker, A Comprehensive Tax Base as a Goal of Income Tax Reform, 80 Harvard Law Review 925 (1967).

privilege and excise taxes (a tax imposed upon the buyer or seller fixed as a percentage of the gross receipts of a specific transaction).

Under Federal income tax law, Code Section 61 defines gross income as: "[a]ll income, from whatever source derived." This circular (and frankly unhelpful) definition of income leads every law school student to contemplate in her first day of Tax I, and under intense questioning, the facts of *Commissioner of Internal Revenue v. Glenshaw Glass Co.*, 348 U.S. 426 (1955). In that case, the Supreme Court held that recovery of punitive damages was taxable income to the recipient, embracing the Code's definition of income as all "accessions to wealth clearly realized, and over which the taxpayers have complete dominion."[9]

Likewise, Pima generates income under the Code's definition—that income is allocated to shareholders and reported on Form 1120S and in the Forms K-1 issued to Pima's shareholders that establish their income tax liabilities from Pima's utility operations. The idea is actually quite simple and all one needs to know—the taxable income is from the utility, the income creates an income tax liability, and that is a cost of service and recoverable in rates.

Q. CAN YOU PROVIDE AN EXAMPLE OF AN ISSUE IN WHICH THE IRS EVALUATES WHAT IS AND WHAT IS NOT INCOME?

A. I can. Citibank recently issued Form 1099s to its customers for frequent flyer miles received in connection with their credit cards.[10] Frequent flyer miles constitute an "accession to wealth" in theory if not in practice.

In the case of Pima, there is no dispute that the operating company has recognized taxable income during the test year. Taxable income, as noted above, is

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[9] *Glenshaw Glass Co.*, 348 U.S. at 429.

[10] Forbes, Citibank Issues Forms 1099 for Frequent Flyer Miles, Surprising Customers and IRS (March 1, 2012), http://www.forbes.com/sites/kellyphillipserb/2012/03/01/citibank-issues-forms-1099-for-frequent-flyer-miles-surprising-customers-and-irs/.

construed broadly to include "accessions to wealth," including frequent flyer miles. Certainly, if frequent flyer miles are considered taxable income, then Pima has recognized taxable income from utility operations.

Again, the Haig-Simons definition of income as an economic construct is: the sum of a person's personal expenditures plus (or minus) the increase (or decrease) in the taxpayer's wealth. Pima's income recognition is salient under Haig-Simons economic theory as well as more pedestrian tax law. The income recognized at the first tier creates a tangible tax liability, even if ultimately paid by second tier investors. The only question in determining whether or not Pima Utility Company is entitled to the income tax allowance is whether Pima has incurred a tangible tax liability for cost of service purposes in a rate case. The answer is clearly yes.

Q. IS THERE ANYTHING ABOUT PIMA'S STRUCTURE THAT ELIMINATES ITS TAX LIABILITIES AND MAKES THEM "PHANTOM"?

A. No. For all entities, income is determined and taxed on a calendar year basis and reported annually *post hoc*, a further distinction from property and sales taxes. Pima's income is determined and recognized as taxable under that framework.

Items of income on a taxpayer's return may be offset by deductions, credits, exemptions and items of loss, or excepted from recognition by other provisions of the Code. Income tax losses may be carried forward and back, and affiliated entities may net taxable income and loss from their separate tax reports on a consolidated return.

Whether the taxpayer is an individual or a C corporation, those elements and approaches are the same. For example, a husband and wife filing a joint tax return net their incomes and deductions, just as C corporation holding companies net their

incomes, losses and deductions against C corporation operating utilities and their other subsidiaries when filing a consolidated return.

Q. AND WITH REGARD TO PIMA UTILITY COMPANY IS THERE ANYTHING THAT DEMONSTRATES AN ACTUAL TAX LIABILITY?

A. The fact that Pima's taxable income is reported on informational return Form 1120S, reported to its shareholders on Forms K-1, and taxed on the shareholders' Forms 1040 *does not* mean Pima's taxable income is phantom, <u>it means that Pima's income has generated a real tax liability in years in which Pima generates a profit and reports income to its shareholders</u>. The phantom tax argument is inconsistent with the concept of taxable income under the United States Tax Code. The concept of phantom income does not exist in tax law. Moreover, use of the phantom income argument to disallow an otherwise legitimate cost of service is a senseless and counter-productive regulatory punishment of tax efficient business organizations to the detriment of Arizona ratepayers.

Q. DOES THE COMMISSION NEED TO DETERMINE THE AMOUNT OF TAXES THAT WERE ACTUALLY PAID BY PIMA'S SHAREHOLDERS IN A PARTICULAR YEAR AS A PRECONDITION TO GRANT RECOVERY OF INCOME TAX EXPENSE?

A. No. That would be an unnecessary exercise. The complexity of the Code (a plethora of exemptions, exclusions, deductions, credits and non-recognition provisions), the temporal nature of the annual filing of returns, the business reality of operating divisions and consolidated returns, and the nature of income under the tax code (for example frequent flyer miles as income) confirm this conclusion. Income recognized by a pass-through entity **<u>is</u>** income, even if no tax is paid at the entity level. Income realized by Pima **<u>is</u>** income even if its shareholders ultimately pay the tax.

Q. BUT IF ONE OR MORE OF PIMA'S SHAREHOLDERS HAVE THEIR INCOME TAX LIABILITY FROM PIMA'S INCOME OFFSET BY LOSSES FROM OTHER INVESTMENTS, DOESN'T THAT CONVERT PIMA'S INCOME TAX INTO A "PHANTOM TAX"?

A. Because taxation of income is unlike taxation of property or sales, the concept of "phantom" income tax does not exist as I explained in a prior response. The "phantom tax" argument reflects a misunderstanding of the law and economics of income taxation. The phantom tax argument confuses the *recognition* of income with the *payment* of tax. Pima's income is no different than income earned by a C corporation. Pima, therefore, should receive an income tax allowance as part of its cost of service.

When Pima's shareholders receive their Forms K-1, they are required to report that income on their Forms 1040.

C. <u>As a Matter of Public Utilities Regulation, the Income Tax Allowance for a Pass-Through Entity is a Proper Cost of Service Item. Disallowance of the Income Tax Allowance Results in Rates that are Unjust and Unreasonable.</u>

Q. IS AN INCOME TAX ALLOWANCE A PROPER COST OF SERVICE ITEM?

A. Yes, for the simple reason that the tax liability is incurred by Pima in providing utility service to customers. FERC has recently and carefully considered the income tax allowance in the context of regulation of public utilities.

As is the case with the Arizona Corporation Commission, for FERC the rates of regulated entities must be just and reasonable.[11] The regulator must balance the interests of the investor and the consumer.[12] And the regulated entity

[11] *Permian Basin Area Rate Cases*, 390 U.S. 747, 805-06 (1968).
[12] *Federal Power Commission v. Hope Natural Gas*, 320 U.S. 591, 603 (1944).

must be allowed to earn sufficient revenues to maintain fiscal integrity and attract capital. Hence, rates must be neither unreasonably high nor unreasonably low.[13]

After consideration, FERC now provides income tax expense recovery for all regulated utilities, including pass-through entities.

Q. DID FERC ALWAYS HOLD THAT VIEW?

A. It did not. As noted above, after the 1986 Act, lawyers who advised privately held businesses to form C corporations had some explaining to do. As a consequence of the Code Section 7704(d) exemption for publicly traded pipeline companies to operate as pass-through entities, rate proceedings involving pass-through utilities arose in the 1990's. In 1995, FERC considered the tax allowance as a cost of service in the case of a limited partnership that operated a pipeline.[14]

In *Lakehead*, FERC allowed an income tax allowance as a cost item of the limited partnership, **but only to the extent its limited partnership interests were held by corporate partners.**[15] FERC did not allow the tax allowance attributable to limited partnership interests held by Lakehead's non-corporate partners.

In 2004, FERC's *Lakehead* doctrine was reversed by the Court of Appeals for the D.C. Circuit.[16] Although the shippers made the phantom income argument (ironically the named plaintiff affiliate of a major oil company was an LLC), the Court of Appeals reversed the underlying FERC Order on other grounds. The court described FERC's arbitrary distinction between corporate and non-corporate partners as unreasoned decision-making, rendering the Order violative of the Interstate Commerce Act.[17] The *BP West Coast Products* decision did not decide

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[13] *Id.*

[14] *Lakehead Pipe Line Company, L.P.*, 71 FERC ¶ 61,388 (1995), *reh'g denied*, 75 FERC ¶ 61,181 (1996).

[15] *Id.*

[16] *BP West Coast Products, LLC v. FERC*, 374 F.3d 1263 (D.C. Cir. 2004).

[17] *Id.* at 1288-90.

the phantom income issue. Instead, the Court held that FERC's *Lakehead* policy was unsustainably discriminatory and legally defective.[18]

FERC responded almost immediately to the Court of Appeals remand in *BP West Coast Products*, issuing a generic Notice of Inquiry on December 2, 2004. Due to extensive public interest in this issue, FERC extended the public comment period to January 21, 2005. FERC received and considered 42 comments, and on May 4, 2005, by a bipartisan and unanimous vote, FERC approved a Policy Statement on Income Tax Allowances.[19]

The FERC Policy Statement not only rejects but demolishes the phantom income argument. FERC's Policy Statement approves the income tax allowance for all pass-through entities without limitation. It is worth quoting Paragraph 34 of the Policy Statement in its entirety:

> As several commentors point out, a detailed discussion of the realities of partnership tax practice was not before the court when it reviewed the Opinion No. 435 orders. Because public utility income of pass-through entities is attributed directly to the owners of such entities and the owners have an actual or potential income tax liability on that income, the Commission concludes that its rationale here does not violate the court's concern that the Commission had created a tax allowance to compensate for an income tax cost that is not actually paid by the regulated utility. As explained in detail by the comments summarized in sections A and D of Part II of this order, *the reality is that just as a corporation has an actual or potential income tax liability on income from the first tier public utility assets it controls, so do the owners of a partnership or LLC on the first tier assets and income that they control by means of the pass-through entity.* (Emphasis added.)

FERC carefully analyzed the law of income taxation of pass-through entities and expressly rejected the argument that income tax adjustments should be denied

[18] *Id.* at 1290.

[19] *Policy Statement on Income Tax Allowances*, 111 FERC ¶ 61,139 (2005) (attached as Exhibit MLS-RB2).

because the pass-through entity did not pay the tax. FERC rejected the "phantom tax argument" based on the legal and public policy aspects of the income tax allowance:

> Thus, the policy the Commission is adopting should not result in increased costs to public utility ratepayers, and may actually reduce them if a partnership of LLC has a lower weighted marginal tax rate and fewer administrative expenses than the normal corporate form. The Commission therefore concludes that, as is argued by the commentors urging an income tax allowance for all public utility entities, *providing an income tax allowance to partnerships in proportion to the interests owned by entities or individuals with an actual or potential income tax liability does not create a phantom income tax liability.* (Emphasis added.)[20]

Q. WAS THERE AN EVALUATION OF THE IMPACT TO RATEPAYERS FROM THE USE OF A PASS-THROUGH STRUCTURE?

A. There was. The regulated utility's use of pass-through status reduced operating costs, ultimately saving shippers money. Far from being a nefarious act, it was common sense. It is ill-advised regulatory policy to punish a tax-efficient business for reducing its operating costs and thereby saving ratepayer money. It is counter-intuitive to compel utilities into tax-inefficient corporate structures that increase ratepayer costs. The same holds true for Pima here.

Q. IN HIS TESTIMONY, MR. RIGSBY SUGGESTS THAT THE FERC POLICY AND DECISIONS SHOULD NOT APPLY TO ARIZONA. DO YOU AGREE?

A. No. A flawed understanding of income tax leads to a flawed "phantom tax" argument, the implementation of which would 1) reduce the ability of regulated utilities operating as pass-through (tax efficient) entities to attract capital into Arizona, 2) expose Arizona ratepayers to higher income tax expenses under

[20] *Id.* at ¶ 37.

corporate tax rates, and 3) reduce the opportunity for Arizona to attract investment that will build the infrastructure it needs to have a robust and growing economy.

Q. HAVE YOU SEEN EVIDENCE OF THOSE NEGATIVE EFFECTS FROM A WRONG VIEW OF TAX RECOGNITION?

A. I have. Arguably the worst and most dramatic aspects of the 2001 California energy crisis were the rolling blackouts in northern California. California suffered from inadequate investment in energy infrastructure, particularly electric transmission. South to north power flows were congested due to the inadequacy of the high voltage transmission line known as Path 15. Increasing the capacity of Path 15 became a national priority, and FERC and the State of California coordinated a public/private partnership to rebuild the line. FERC relied on that matter[21] in its Policy Statement. The reference to Trans-Elect is that the project developer was an LLC. It was contrary to the public interest to starve Trans-Elect of capital. The denial of the income tax allowance, a legitimate cost of a project essential to the ratepayers' health, welfare and safety, simply because Trans-Elect was an LLC, would have been an unjust, unreasonable, and unacceptable result.[22]

Q. WAS THE FERC INCOME TAX ALLOWANCE POLICY CHALLENGED IN COURT?

A. It was. FERC's Policy Statement came before the D.C. Circuit upon a Petition for Review of a 2005 FERC Remand Order, *SFPP, L.P.*, 111 FERC ¶ 61,334 (2005). In *ExxonMobil Oil Corporation v. FERC*, 487 F.3d 945 (2007), the Court of Appeals affirmed FERC's reasoning in the Policy Statement and reiterated its

[21] *Trans-Elect NTS Path 15, LLC*, 109 FERC ¶ 61,249 (2004).

[22] 111 FERC ¶ 61,139 at ¶ 35.

rejection of the *Lakehead* doctrine that had previously allowed FERC to disallow the income tax expense to pass-through entities.[23]

The D.C. Court of Appeals in *ExxonMobil* addressed head-on the phantom income argument raised by the shippers. The court offered two reasons why *BP West Coast*[24] did not foreclose the full income tax allowance for pass-through entities delineated in the FERC Policy Statement.

First, the Court of Appeals acknowledged what every tax accountant knows, that the first tier income recognized at the partnership level creates "real" income tax liabilities at the second tier.[25] This holding in and of itself justifies the recovery of Pima's income tax expense because income at the S corporation level creates real income tax liabilities for its shareholders.

Secondly, unlike the dubious reasoning underlying the *Lakehead* policy, "in the instant case FERC has gone to great lengths to explain why the taxes in question are not 'phantom' and are properly attributed to the regulated entity."[26] The court observed that C corporation shareholders are taxed only upon dividends received, and unlike the case with S corporations and partnerships, recognition of income at the first tier is insufficient to impose tax liability upon C corporation investors. Thus the *ExxonMobil* court affirmed the income tax allowance and rejected the phantom tax argument as contrary to the principles of the tax code and economic reality.[27]

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[23] *ExxonMobil*, 487 F.3d 945.
[24] *BP West Coast*, 374 F.3d at 1291.
[25] *ExxonMobil*, 487 F.3d at 953-55.
[26] *Id.* at 954.
[27] *Id.*

Q. AFTER THOSE COURT DECISIONS, DID FERC RESOLVE THE MATTER WITH FINALITY?

A. It did. I believe FERC Orders 511 and 511-A are the final word on the correct regulatory treatment of the income tax allowance for pass-through entities. FERC was presented with a grand opportunity to resolve the income tax allowance in the context of an oil pipeline doing business as a master limited partnership ("MLP"). MLPs proliferated after the 1987 Section 7704(d) exemption for oil and gas pipelines to operate as publicly traded, pass-through regulated utilities. The shippers addressed every aspect of the income tax allowance in challenging the FERC Administrative Law Judge's 2009 Decision.[28]

Q. SO FERC FOUND THAT INCOME TAXES IN PASS-THROUGH ENTITIES ARE REAL?

A. Yes. FERC concluded that income taxes reported at the partnership level but paid by its partners are "real costs of acquiring and operating the pipeline assets, and therefore the income tax allowance does not recover a phantom cost."[29]

FERC Order 511 analyzed the Income Tax Policy Statement and the *ExxonMobil* decision that upheld it, concluding that an income tax allowance for an MLP was correct tax law.[30] In Order 511-A, FERC addressed on rehearing numerous shipper objections to the income tax allowance for MLPs. Upon careful, indeed exhaustive analysis, FERC held that "an income tax allowance does not result in phantom income tax cost, the double recovery of the partner's income tax liability, or unjust or unreasonable rates.[31]

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[28] *Opinion No. 511* (134 FERC ¶ 61,121 (2011)) at ¶ 219.
[29] *Id.* at ¶ 227.
[30] *Id.* at ¶ 228.
[31] *Opinion No. 511-A* (137 FERC ¶ 61,220) at ¶ 270, *citing* 134 FERC ¶ 61,121 at ¶¶ 249-50, 258, 259, 261, 296.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

Pima Utility Company

Marc Spitzer Rebuttal Testimony

Exhibit MLS-RB1

MARC L. SPITZER, ESQ.
PARTNER, STEPTOE & JOHNSON LLP
1330 CONNECTICUT AVENUE NW
WASHINGTON, DC 20036

PUBLIC SERVICE

Commissioner, Federal Energy Regulatory Commission, Washington, DC
2006-2011

Participated in Commission technical conferences, initiatives and proceedings, including 2005 Energy Policy Act and other rulemakings, rate, enforcement and reliability cases, electric transmission policy, natural gas infrastructure.

Extensive lecture and speaking schedule, including before significant international energy conferences representing United States government, major U.S. energy conferences involving Federal and State political and regulatory bodies, regulated entities, energy producers and investors and all major energy trade associations.

Testified before Congressional Committees, assisted and consulted with members of Congress and Congressional staffs.

Commissioner, Arizona Corporation Commission, Phoenix, Arizona
2001-2006, Chairman, 2003-2005

Statewide elected official

Presided over electric, natural gas, water, telecommunications rate cases, securities enforcement proceedings, power plant and electric transmission line siting cases, rulemakings including Arizona's Renewable Portfolio Standard, natural gas infrastructure policy statement.

Member, National Association of Regulatory Utility Commissioners. Frequent speaker at regional and national conferences before State and Federal Commissioners, elected officials and regulated entities.

Arizona State Senator, 1993-2001
Senate Majority Leader, 1996-1999
Chair, Finance Committee, 1994-1996
Chair, Judiciary Committee, 1999-2001

Assumed leadership positions from first legislative session.

Sponsored and enacted major Arizona tax, budget, energy, environmental and judiciary legislation during 1990's.

Negotiated State Implementation Plan for Arizona's non-attainment areas with Environmental Protection Agency Region 9 Administrator.

Lecturer before National Conference of State Legislators and American Legislative Exchange Council.

Recipient of more than 50 awards for legislative service from business, political and non-profit organizations.

PRIVATE PRACTICE OF LAW

Bar Admissions:
State Bar of Arizona, 1982
AV by Rated Martindale Hubbell, 1987-2006
Certified as Tax Law Specialist by Arizona State Bar Board of Legal Specialization, 1986-2006
United States District Court, Arizona, 1982
United States Tax Court, 1982
Court of Appeals for the Ninth Circuit, 1983
Tribal Courts of the Navajo Nation, 1988

Recipient of Exceptional Achievement Award from State Bar of Arizona.

Marc L. Spitzer, Attorney at Law
2001-2006
Federal tax controversy law practice

Lecturer in classes on Federal income taxation, IRS audits and appeals at national conferences, Arizona State University, Arizona Tax Conference, Arizona Society of CPAs, State Bar of Arizona and other organizations.

KPMG LLP, Phoenix, Arizona
1996-2001
Tax Director, KPMG Tax Controversy Services section

Represented public companies and private entities in disputes with

Internal Revenue Service before IRS Audit and Appellate Divisions and United States Tax Court.

Fennemore Craig PC, Phoenix, Arizona
1982-1996
Shareholder, Director, 1988-1993
Relinquished equity position in Firm upon election to State Senate

General tax practice at established regional southwestern law firm with focus on Federal tax controversies.

Appearances before Federal and Arizona trial and appellate courts and administrative agencies.

EDUCATION

University of Michigan Law School
J.D., 1982, *cum laude*

Dickinson College
B.A. 1979 *summa cum laude, Phi Beta Kappa*

VITAE
Born Pittsburgh, PA September 12, 1957

Pima Utility Company

Marc Spitzer Rebuttal Testimony

Exhibit MLS-RB2

111 FERC ¶ 61,139
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;
Nora Mead Brownell, Joseph T. Kelliher,
and Suedeen G. Kelly.

Inquiry Regarding Income Tax Allowances Docket No. PL05-5-000

POLICY STATEMENT ON INCOME
TAX ALLOWANCES

(Issued May 4, 2005)

1. On December 2, 2004, the Commission issued a notice of inquiry regarding income tax allowances. The Commission asked interested parties to comment when, if ever, it is appropriate to provide an income tax allowance for partnerships or similar pass-through entities that hold interests in a regulated public utility. The Commission concludes that such an allowance should be permitted on all partnership interests, or similar legal interests, if the owner of that interest has an actual or potential income tax liability on the public utility income earned through the interest. This order serves the public because it allows rate recovery of the income tax liability attributable to regulated utility income, facilitates investment in public utility assets, and assures just and reasonable rates.

I. Background

2. The instant proceeding was initiated by the Commission in response to the U.S. Court of Appeals for the District of Columbia remand in *BP West Coast Products, LLC, v. FERC,*[1] in which the court held that the Commission had not justified the so-called *Lakehead* policy regarding the eligibility of partnerships for income tax allowances. The *Lakehead* case[2] held that a limited partnership would be permitted to include an income tax allowance in its rates equal to the proportion of its limited partnership interests owned by corporate partners, but could not include a tax allowance for its partnership interests that were not owned by corporations. Prior to *Lakehead,* the Commission's policy provided a limited partnership with an income tax allowance for all

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[1] *BP West Coast Products, LLC v. FERC*, 374 F.3d 1263 (D.C. Cir. 2004) (*BP West Coast*), *reh'g denied*, 2004 U.S. App. LEXIS 20976-98 (2004).

[2] *Lakehead Pipe Line Company, L.P.*, 71 FERC ¶ 61,388 (1995), *reh'g denied*, 75 FERC ¶ 61,181 (1996) (*Lakehead*).

of its partnership interests, but did so in the context that most partnerships were owned by corporations. This ruling was not appealed until a series of orders involving SFPP, L.P. in the proceedings underlying the remand.[3] The Commission's rationales for permitting a tax allowance for corporate partner interests were (1) the double taxation of corporate earnings, (2) the equalization of returns between different types of publicly held interests, *i.e.* the stock of the corporate partner (which involves two layers of taxation of partnership earnings) and the limited partnership interests (which involve only one), and (3) encouraging capital formation and investment.

3. The court found all of these rationales unconvincing. First, the court rejected the double taxation rationale in *Lakehead*, concluding that (1) only the costs of the regulated entity may be recovered, and (2) taxes are but one cost paid by a corporate partner as part of its cost of doing business.[4] The court also rejected the rationale that the investor should be able to obtain the same returns without regard to which instrument the investor purchases. The court rejected this argument by noting that if any income tax allowance is provided, this benefits all investors holding instruments proportionately because the additional income is shared on a *pro rata* basis.[5] Given this *pro rata* distribution of income by the partnership, the court concluded that non-corporate partners would receive an excess rate of return.

4. Thus, while the double taxation function may affect the eventual return for the investor, the court made clear that this is a function of corporate structure and the attendant tax consequences, not the regulated utility's risk.[6] The court therefore concluded that the investor's return and risk are no more appropriately attributed to the

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[3] *Opinion No. 435* (86 FERC ¶ 61,022 (1999)), *Opinion No. 435-A* (91 FERC ¶ 61,135 (2000)), *Opinion No. 435-B* (96 FERC ¶ 61,281 (2001)), and an *Order on Clarification and Rehearing* (97 FERC ¶ 61,138 (2001)) (collectively the Opinion No. 435 orders.) These are now pending before the Commission on remand and rehearing in Docket Nos. OR92-8-000, *et al.,* and OR96-2-000, *et al.*, respectively.

[4] *BP West Coast* at 1288.

[5] *Id.* at 1292-93.

[6] In making a decision whether to buy a limited partnership interest (where only the unit holder's income is taxed), or a share of a corporate partner (where the corporate income is taxed as well), it should be the individual investor that makes the adjustment for the double taxation. The individual investor can do this by paying prices that equalize the pre-tax return to the investor of the different instruments that have income derived from the same public utility assets.

regulated entity than are the investor's various costs in determining the costs or allowances that the regulated entity is permitted to recover.

5. The court also rejected the Commission's third rationale that an income tax allowance should be permitted to encourage capital to flow into public utility industries regulated by the Commission.[7] Throughout its analysis the court stated that the Commission's central assumption in its *Lakehead* decisions was that income taxes are an identifiable cost for the regulated entity. Thus, if a partnership paid no income taxes, or had no potential income tax liability, no cost was incurred and therefore an income tax allowance would reimburse the entity for a phantom cost. Accordingly, the court concluded that a payment for a non-existent cost was still invalid even if designed to encourage needed infra-structure investment.

6. While the court's decision addressed only the Order No. 435 opinions, it became apparent that the remand has implications for other proceedings and regulated utilities as well. As was discussed in the more recent *Trans-Elect* order,[8] denying a tax allowance would significantly reduce the expected returns that were the basis for the investment in that project. In light of the broader implications of *BP West Coast,* the Commission sought comments here on whether the court's ruling applies only to the specific facts of the SFPP, L.P. proceeding, or also extends to other capital structures involving partnerships and other forms of pass-through ownership. The Commission asked whether the court's reasoning should apply to partnerships in which: (1) all the partnership interests are owned by investors without intermediary levels of ownership; (2) the only intermediary ownership is a general partnership; (3) all the partnership interests are owned by corporations; and (4) the corporate ownership of the partnership interests is minimal, such as a one percent general partnership interest of a master limited partnership. The Commission also asked if (1) the court's decision precludes an income tax allowance for a partnership or other ownership interests under any of these situations, will this result in insufficient incentives for investment in energy infrastructure; (2) or will the same amount of investment occur through other ownership arrangements; and (3) are there other methods of earning an adequate return that are not dependent on the tax implications of a particular capital structure?

II. Comments

7. After an extension of the comment period to January 21, 2005, thirty-three comments were timely filed with an additional nine comments filed late. As enumerated below in greater detail, the comments advocate four general positions. While no party

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[7] *BP West Coast.* at 1292-93.

[8] *Trans-Elect NTS Path 15, LLC*, 109 FERC ¶ 61,249 (2004) (*Trans-Elect*).

argues for the continuation of the *Lakehead* doctrine in its current form, three appear to argue that an approach should be used to preserve the tax allowances now available to certain limited liability corporations (LLCs), or possibly provide a justification for tax allowances for all partnerships and LLCs, as long as there is no additional cost to the rate payers beyond that which would have been incurred through a corporate form. Three commentors argue for granting a tax allowance if a partnership is entirely owned by a tax paying corporation filing a consolidated return. Ten argue that the tax allowance should be granted only to entities that actually pay taxes and that there should be no allowance for "phantom" taxes. Twenty-four commentors would provide a tax allowance to all entities to assure that tax factors do not control the selection of the investment vehicle. Two filings were limited to interventions or minor comments and are not discussed further in this order.[9]

A. Proposals Akin to *Lakehead*

8. Three commentors expressed concern about the possible impact of the court's decision on existing public utility partnerships that include for-profit private and non-profit public electric utilities.[10] These concerns are summarized by Wisconsin Public Power Inc. (WPPI), which asserts that the Commission should permit LLCs and partnerships to have an income allowance if the LLC demonstrates that its structure would not increase the income tax component of the cost of service to transmission rate payers. WPPI is a part owner of the American Transmission Company, LLC (ATCLLC), which owns transmission lines conveyed to it by various utilities, private and public, in Wisconsin. To maintain cash flow neutrality for its owners after the facilities were transferred to ATCLLC, ATCLLC was provided a tax allowance equal to the blended tax rate of its owners. Thus, to the extent that the income stream to a private owner would be taxed at 35 percent, ATCLLC was provided an allowance for taxes on that income. A municipality pays no taxes and therefore that portion of the income stream did not result in a tax allowance. The ATCLLC income stream is then allocated at the owner level in a way that prevents over or under-recovery.

9. WPPI states that this arrangement assured that the income stream from transmission operations would not be taxed at the operating level of ATCLLC, thus retaining the two tier structure that existed before the various private companies divested their transmission assets to ATCLLC. These two historical taxation tiers were the corporate income tax and the tax on the shareholder dividends. ATLLC states that

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[9] Edison Mission Energy, which urged that the income tax allowance issue be resolved quickly, and Piedmont Natural Gas Company, Inc., which only intervened.

[10] Electric Power Supply Association (EPSA); Michigan Electric Transmission Company, LLC (METC); Wisconsin Public Power, Inc.

without the use of the LLC form, and a tax allowance attributable to the utility income stream, the private shareholders would suffer a loss in value because of the additional level of taxation on transmission income. Thus, the value of a transmission interest in ATCLLC would be diminished below the value it had for the private corporation before the transfer of the asset. For this reason the private companies would not have transferred their assets to ATCLLC. WPPI therefore concludes that the tax allowance on the income stream of LCC that pays no income taxes itself was essential to the creation of an independent transmission system on the upper Michigan peninsula.

10. METC likewise requests a solution that would preserve the rate attributes historically extended to LLCs, consistent with the methodology first announced in the *Lakehead* cases. Most importantly, METC asserts that the Commission should take no action that would undermine existing investments in independent transmission companies that are LLCs. Thus, METC's concerns do not turn on the preservation of the *Lakehead* doctrine as such, but that the corporate shareholders of that LLC are not deprived of the tax allowance that was built into the rates of return on the transmission assets that these firms contributed to METC's independently owned transmission system.

11. EPSA urges that the Commission affirm the *Lakehead* philosophy by providing the Court of Appeals with a better rationale. EPSA suggests that there are six basic options available to the Commission. One is to give utilities organized as corporations a tax allowance, but not partnerships. A second is to treat partnerships and corporations the same and give both a tax allowance. A third is to deny any partnerships with non-corporate owners a tax allowance but permit the allowance for partnerships owned wholly by corporations. A fourth is to readopt *Lakehead.* A fifth is to eliminate the allowance and base rates on pre-tax rates of return. A sixth is to decide matters of partnership income tax allowances on a case-by-base basis.

12. EPSA states that first option would have a serious negative consequence on raising capital for the industry, particularly with regard to large projects with multiple owners. It notes that even if corporate-owned partnerships could reorganize to qualify for a tax allowance, there are additional administrative costs that would be passed on to consumers. It further asserts that a case-by-case approach would result in uncertainty and to disqualify a partnership based on a single non-corporate partner seems unfair and hard to justify analytically. Determining returns on a pre-tax basis is likely to be controversial and difficult to implement.

13. EPSA therefore concludes that the only realistic options are (1) treating all entities the same; or (2) a continuation of the Commission's *Lakehead* policy. ESPA notes that taxes are an imputed cost based on public utility net income. As such, EPSA claims that the court ignored the fact that taxes are imputed to a utility in situations where the utility pays no actual taxes because the corporate income tax allowance is based on the regulatory book income of the utility in question. EPSA's analysis assumes that the

required rate of return is 12 percent. EPSA then asserts that in the absence of a tax allowance, a utility subject to the 35 percent corporate income tax would only pay out dividends equivalent to 7.8 percent net income (instead of 12 percent).

14. EPSA states that in contrast, the corporate tax allowance increases the utility's pre-tax return on equity to 18.5 percent, which after application of the 35 percent tax rate, results in the 12 percent equity return. EPSA concludes that if an allowance is not allowed to partnerships owned by one or more corporations, the amount returned to the parent corporation will not be sufficient to attract equity investment. Since EPSA opposes an income tax allowance for pass-through entities that are not owned by a corporation, and believes it unfair to deny an income tax allowance if some of the partnership interests are not owned by a corporation, it concludes that the *Lakehead* approach should be affirmed.

B. If a Corporation Owns the Partnership Interests

15. Three commentors[11] argue that an income tax allowance should be allowed if the partnership interests are owned wholly by corporations filing a consolidated return. In support of this position, Kern River states that the Commission's stand alone rate-making policy should apply, just as it does in the case of a consolidated return that can be filed when a parent corporation owns at least 80 percent of a subsidiary's stock.[12] All three of these commenters assert that in the case of a regulated partnership held within a single corporation and whose income is included in a consolidated return, the income from the regulated partnership generates a tax liability that is included in the jurisdictional cost of service of the corporate group.

16. Kern River further states that there is no question that income generated by a partnership within a corporate group creates an income tax liability for the group. This is because, while the partnership is not taxed directly, its income is flowed through to the corporations that hold the partnership interests. Duke Energy further asserts that *BP West Coast* was not intended to invalidate an income tax allowance for pass-through entities owned by corporations and at a minimum that decision should be restricted to its

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[11] Duke Energy Corporation; Kern River Gas Transmission Company (Kern River); Texas Gas Transmission, LLC.

[12] The stand-alone policy provides that income tax allowance of a corporate subsidiary should be determined based on the actual or potential income tax obligation of that subsidiary. Thus, the amount of the allowance is not based on the tax obligation of the parent company in the test year in which the consolidated return is filed. *See City of Charlottesville v. FERC*, 774 F.2d 1205 (D.C. Cir. 1985) (*City of Charlottesville).*

facts.[13] Thus, regardless of the corporate structure, the income a partnership generates is a part of the consolidated group's taxable income, and therefore generates a corporate tax liability. These commenters therefore assert that a partnership that is wholly owned by a corporation should be granted an income tax allowance.

C. Opposition to Any Allowance if Taxes are not Actually Paid

17. Ten commentors assert that there should be no tax allowance for any entity that does not actually pay income taxes or has a potential liability for such taxes.[14] Only one such commentor, the NGSA, suggests that the court's ruling should be applied on a case-by-cases basis. All others assert that the court's holdings should be applied uniformly to all partnerships, LLCs, or similar pass-through entities, thus creating a single uniform rule. Thus, there would be no income tax allowance for any partnership or LLC, including those owned by corporations that do not have an actual or potential income tax liability. They assert that the court's decision is binding on the Commission, and that there should be no income tax allowance for partnerships that do not pay income taxes.

18. They assert that any such phantom taxes will result in a significant increase in rates to customers or consumers. This is because the gross-up for the income tax allowance could result in as much as a 60 percent increase in the rate of return on equity assuming that the regulated entity is allowed a twelve percent rate of return on equity.[15] Any gross-up from the tax allowance represents an increase in return for entities that may be already charging unjust and unreasonable rates even if a tax allowance were excluded. Rather than provide an inflated return, they assert that any needed incentives for increased investment should be provided by special actions to increase the pre-tax rate of return. Given this alternative, denying a tax allowance will not act as a disincentive to investment in infra-structure facilities.

19. In addition, BP West Coast Products asserts that the inquiry in Docket No. PL05-5-000 was prompted by *ex parte* communications to the Commission and therefore no determinations of any specific income tax issues should be made in this proceeding. It further asserts that the partners investing in SFPP's parent entities will rarely pay taxes on the income generated by that partnership and that many such master limited partnerships

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[13] Kern River at 7-8; Duke Energy at 4-5.

[14] Air Transport Association of America, Inc.; American Public Gas Association; BP West Coast Products; Calpine Corporation; Canadian Association of Petroleum Producers; Missouri Public Service Commission; Natural Gas Supply Association (NGSA); National Rural Electric Cooperative Association; Society for the Preservation of Oil Pipeline Shippers; and Valero Marketing and Supply Company.

[15] *See* BP West Coast Products at 6; NGSA at 3.

(MLP) are intended to act as tax shelters that remove cash from existing pipelines. BP West Coast Products concludes that providing MLPs an income tax allowance is not necessary to encourage new investment and that this should be done by providing an increased pre-tax rate of return

20. At bottom, these commentors base their argument on three central points in the *BP West Coast* opinion. The first is that "where there is no tax generated by the regulated entity, either standing alone or as part of a consolidated group, the regulator cannot create a phantom tax in order to create an allowance to pass-through to the rate payer."[16] The second is that it is not "the business of the Commission to create a tax liability where neither an actual nor estimated tax is ever going to be paid or incurred on the income of the utility in the rate making proceeding."[17] The third is even if an income tax allowance is necessary to implement a congressional mandate designed to encourage investment in public utility facilities, the court concluded was inadequate to create an allowance for fictitious taxes.[18]

D. Comments Supporting a Tax Allowance for All Entities

21. Twenty-four commentors[19] support a tax allowance for all entities investing in public utility enterprises. These commentors start from the premise that the court did not have before it the realities of partnership or LLC taxation and as such did not address

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[16] *BP West Coast* at 1290.

[17] *Id.* at 1292.

[18] *Id.* at 1292-93.

[19] Alaska Gas Transmission Company, LLC; American Gas Association (AGA); Association of Oil Pipe Lines (AOPL); American Transmission Company, LLC; Duke Energy Corporation; Edison Electric Institute and the Alliance of Energy Suppliers, filing jointly; Enbridge Inc. and Enbridge Energy Partnerships; Enterprise Products Partners, L.P.; Guardian Pipeline; Hardy Storage Company, LLC; INGAA; Interested Gas Pipeline Partnerships; Kaneb Pipe Line Operating Partnership, L.P.; Kayne Anderson Capital Advisors and Kayne Anderson MLP (Kayne); Kinder Morgan Interstate Gas Transmission, LLC, Trailblazer Pipeline Company, and Transcolorado Gas Transmission Company, filing jointly; MidAmerica Energy Company; Millennium Pipeline Company, L.P.; Plains Pipeline, L.P.; Publicly Traded Limited Partnerships; Northern Border Pipeline Company; Shell Pipeline Company, L.P.; Tortoise Energy Infrastructure Corporation; Trans-Elect, Inc.; Trans-Elect NTD Path 15, LLC; Wisconsin Electric Power Company and Edison Sault Electric Company, filing jointly; and WPS Resources Corporation (WPSR).

them. These commenters thus believe there is no barrier to considering the issue of tax allowances for partnerships in light of the fuller record presented in this proceeding. In fact, some state that this proceeding is an opportunity to reconsider the Commission's *Lakehead* decision, which they believe was incorrect, and to return to the Commission's pre-*Lakehead* policies. In this regard, they conclude, contrary to the court's statement in *BP West Coast* and the Commission's *Lakehead* decision, income taxes are not like all other costs. Unlike operating expenses such as office supplies, rent, or wages, they argue that income taxes are imposed on, or imputed to, a public utility's income, and as such income taxes are not a cash deduction from operations. Because the income tax allowance is imputed, it is grossed-up on the utility's allowable dollar return rather than functioning as a charge against operating income. Thus, the income tax allowance is a function of the equity return, and in turn generates the cash flow that is used to pay the utility income taxes.[20]

22. Proceeding from the premise that income taxes are an imputed cost on income, these twenty-four commentors assert that whether the entity is a corporation or a partnership, there is an actual or potential income tax liability generated by utility income. In turn, it is utility income that generates the cash flow used to pay the income taxes. They claim that this is true whether the income tax is actually paid by a corporation as the first tier investor, or the partners of a partnership as the first-tier investors. They define a first tier investor is one that invested funds in assets that are generating the public utility income. These commentors stress that the critical point is that while a partnership owns the public utility assets, it is a flow-through entity whose income is taxed not at the partnership level, but is taxed to and paid by the individuals or entities that own the partnership interests.

23. Thus, they state that in the case of a partnership, the partners include the utility income in their income tax returns and the tax on utility income is paid at that point.[21] The tax on this income is paid whether or not cash distributions are made to the partners.

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[20] Thus, for example, if gross revenues are $500, and operating expenses such as rent, fuel, labor, interest, repairs, and depreciation of $400 are charged against gross revenues, this would leave operating income of $100. Assuming this equals the allowed equity return, the corporate tax on this $100 would be $35. The $100 is therefore grossed up to approximately $154 to leave a $100 return after payment at an income tax rate of 35 percent. *See* Northern Border at 5 – 7 and 16; INGAA at 16.

[21] The individual partner files a Form1040 tax return and pays the marginal individual tax rate on the utility income. The corporate partner files a Form 1120 tax return and pays the marginal corporate tax on the utility income. At the current time the maximum marginal tax rate in both cases is 35 percent. *See* EEI's comments at 10-11 for a concise summary of partnership tax law and filing procedures.

In contrast, a corporation that owns a public utility asset is the taxpaying entity on the income generated by utility income. These commentors assert that, as with a partnership, the tax on this first tier income is paid whether or not dividends are paid to the corporation's shareholders. The commentors therefore assert that there is no phantom tax liability on partnership income. This is because the tax liability on utility income is real, but it is paid by the partners rather than by a corporation that functions as a separate taxpaying entity.

24. These commentors also start from the basic regulatory premise that a utility must earn a return comparable to that of investment opportunities of similar risk if it is to attract investment.[22] They state that concept refers to the after tax, not the pre-tax, return to the investor in the utility assets is the standard used in public utility rate making regardless of the form of the ownership. Thus, if the after tax return must be 12 percent to attract capital, then all first tier investors in the utility assets must have a reasonable opportunity to earn a 12 percent after tax return if the utility is to attract capital. If partnerships are not permitted a tax allowance on utility income, then cash will not be generated to pay the taxes due on that utility income, and the partnership form of ownership would not be competitive with the corporate form.

25. These commentors also provide various numerical examples of how income tax returns would differ if partnerships are not provided a tax allowance. Assuming that $100 is the after tax return required return to attract capital, the court's decision would permit a tax allowance sufficient to cover the 35 percent maximum corporate tax that would be paid on corporate income. The gross-up to achieve the after-tax return is about 54 percent and generates the cash flow to pay the tax. Thus, after the corporate income tax is paid, the after-tax return is $100.[23]

26. If a partnership is permitted an income tax allowance, the result is the same because the maximum personal income tax allowance is also 35 percent. As with a corporation, the income tax allowance could provide the individual partners with the cash to pay the taxes on utility income, and therefore results in an after tax return of $100, the allowed regulatory return. However, if an income tax allowance is not allowed the partnership, then the partners must pay a $35 income tax on $100 of utility income, leaving them with only an after-tax return of $65. Therefore these commentors conclude that partnerships must be granted an income tax allowance to make the partnership and corporate business forms equally attractive because the tax implications are the same.

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[22] *F.P.C. v. Hope Natural Gas,* 320 U.S. 591, 603 (1943).

[23] *See* INGAA at 16-17; EEI at 13-14; Northern Border at 3-5, 7-8.

27. These commentors also explore some secondary tax factors to demonstrate the need for a partnership tax allowance if such entities are to be a competitive vehicle for investments. While taking some pains to avoid the double taxation issue discussed by the Court of Appeals, they point out that without an income tax allowance partnerships are not competitive with corporations for the individual investor who files a Form 1040 income tax return. As noted in the previous example, without a partnership income tax allowance, the after tax return to a corporate investor is $100 and to the partnership investor it is $65. Assuming that that the corporation pays out all $100 in dividends, the income tax for the Form 1040 individual investor is $15, with a resulting after tax return of $85.

28. Thus, they assert, for a Form 1040 individual investor who has the option of investing either in a corporation or partnership, the partnership is not competitive if, all other things being equal, there is no partnership tax allowance. Moreover, if a corporation owns less than 80 percent of a subsidiary corporation, the subsidiary's dividends are taxed. Pursuing the previous numerical example, if the ownership is greater than 20 percent or less than 80 percent, the 20 percent of the subsidiary's dividends are taxed, or a 7 percent tax differential at the 35 percent bracket. If the ownership is less than 20 percent, 30 percent of the subsidiary's dividends are taxed, or a 9.5 percent tax differential at the 35 percent rate. This increases the cost of participating in large projects in which risk sharing is a consideration.

29. These commentors also assert that there are other significant administrative and commercial advantages to partnerships beyond facilitating risk sharing. Benefits include the ability of some entities, such as municipalities or public transmission owners, to participate in partnerships, but not corporations, avoiding the expense involved in corporate charters, by-laws, shareholder meetings, and greater flexibility in making contributions in-kind and in distributing of earnings. They also argue that Congress clearly intended that utility firms were to be eligible for partnership treatment in order to encourage investment, and that the court's ruling undercuts this important purpose.

30. Finally, these commentors assert that numerous large public utility investments have been made in recent years relying on the tax allowance to provide part of the required after-tax return.[24] They note that as was discussed in the recent *Trans-Elect*

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[24] These commentors include Algonquin Gas Transmission, LLC; Alliance Pipeline, L.P; ATLLC; East Tennessee Natural Gas, LLC; Egan Hub Partners, L.P.; Enbridge Pipeline; Horizon Pipeline Company, LLC; Great Lakes Natural Gas Pipeline; Green Banks Gas Pipeline, LLC; Gulfstream Natural Gas Pipeline; Iroquois Gas Transmission Company; Islander East Pipeline Co, LLC; Kinder Morgan Interstate Gas Transmission, LLC; Maritimes & Northeast Pipeline; Market Hub Partners, L.P.; METC; Moss Bluff Hub Partners, L.P; North Baja Pipeline LLC; Portland Natural Gas Transmission System; Texas East Gas Transmission, LLP; TransCanada Corporation;

order,[25] denying a tax allowance would significantly reduce the expected returns that were the basis for that badly needed investment. They provide lists of numerous publicly traded partnerships that have substantial amounts of equity, and assert that some of these partnerships have made significant additional investments in reliance on the income tax allowance.[26] For these reasons these commentors conclude that all entities investing in utility operations, and generating utility income, should be permitted an income tax allowance. As discussed in the WPPI and EEI comments, the size of the allowance would be determined by the weighted maximum tax rate of the partners involved. Any problems of over- or under recovery would be adjusted within the partnership structure to assure that the benefits of any income tax allowance would not flow to a partner that had no actual or potential income tax liability.

III. Discussion

31. The issue is under what circumstances, if any, an income tax allowance should be permitted on the public utility income earned by various public utilities regulated by the Commission. As stated earlier, while the court's decision in *BP West Coast* only addressed the particulars of a certain oil pipeline, the numerous comments submitted here indicate that partnerships or other pass-through entities are used pervasively in the gas pipeline and electric industries as well. Upon review of the comments, there appear to be four possible choices: (1) provide an income tax allowance only to corporations, but not partnerships; (2) give an income tax allowance to both corporations and partnerships; (3) permit an allowance for partnerships owned only by corporations; and (4) eliminate all income tax allowances and set rates based on a pre-tax rate of return.

32. Given these options, the Commission concludes that it should return to its pre-*Lakehead* policy and permit an income tax allowance for all entities or individuals owning public utility assets, provided that an entity or individual has an actual or potential income tax liability to be paid on that income from those assets. Thus a tax-paying corporation, a partnership, a limited liability corporation, or other pass-through entity would be permitted an income tax allowance on the income imputed to the corporation, or to the partners or the members of pass-through entities, provided that the corporation or the partners or the members, have an actual or potential income tax liability on that public utility income. Given this important qualification, any pass-

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Trans-Elect ND-15; Tuscarora Gas Transmission Company; Saltville Gas Storage Company, L.L.C; and Shell Pipeline Company.

[25] *Trans-Elect NTS Path 15, LLC*, 109 FERC ¶ 61,249 (2004) (*Trans-Elect*).

[26] *See* comments of: Duke Energy Corporation at 9-10, 30; Enbridge Inc and Enbridge Energy Partners at 4-5; Gas Pipeline Partnerships at 2-4; Millennium Pipeline Company, L.P. at 2; Northern Border Pipeline Company at Appendix A; Publicly Traded Partnerships at 13-14.

through entity seeking an income tax allowance in a specific rate proceeding must establish that its partners or members have an actual or potential income tax obligation on the entity's public utility income. To the extent that any of the partners or members do not have such an actual or potential income tax obligation, the amount of any income tax allowance will be reduced accordingly to reflect the weighted income tax liability of the entity's partners or members.[27]

33. In reaching this conclusion, the Commission expressly reverses the income tax allowance holdings of its earlier *Lakehead* orders. As stated in EEI's comments, *Lakehead* mistakenly focused on who pays the taxes rather than on the more fundamental cost allocation principle of what costs, including tax costs, are attributable to regulated service, and therefore properly included in a regulated cost of service.[28] Relying on *BP West Coast,* some commenters assert that because a pass-through entity pays no cash taxes itself, this results in a phantom tax on fictional public utility income. However, the comments summarized in sections A and D of Part II of this policy statement demonstrate that this assumption was incorrect. While the pass-through entity does not itself pay income taxes, the owners of a pass-through entity pay income taxes on the utility income generated by the assets they own via the device of the pass-through entity.[29] Therefore, the taxes paid by the owners of the pass-through entity are just as much a cost of acquiring and operating the assets of that entity as if the utility assets were owned by a corporation. The numerical examples discussed in sections A and D of Part II of this policy statement also establish that the return to the owners of pass-through entities will

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[27] This is a technically complex issue that would be addressed in individual rate proceedings as suggested by EEI and WPPI.

[28] EEI comments at 8. In support of this point several commenters cite to *City of Charlottesville*, *supra*, note 12, for the proposition that a tax cost involves real taxes but not necessarily require that cash taxes be paid by the regulated entity. *See* EEI at 11-13; INGAA at 12-13; Joint Comments of the Interested Gas Pipeline Partnerships at 10-12; AOPL at 8-9.

[29] The comments and numerical examples submitted by the EEI, INGAA, and Northern Border demonstrate that under partnership law the partners, or members, of pass-through entities pay taxes on the public utility income of the operating entities that they control through the partnership or other pass-through entity. *See* EEI at 13-15; INGAA at 15-17; Northern Border at 5-8; Shell Pipeline Company LP at 4; and WPS Resources at 14-16.

be reduced below that of a corporation investing in the same asset if such entities are not afforded an income tax allowance on their public utility income.[30]

34. As several commentors point out, a detailed discussion of the realities of partnership tax practice was not before the court when it reviewed the Opinion No. 435 orders. Because public utility income of pass-through entities is attributed directly to the owners of such entities and the owners have an actual or potential income tax liability on that income, the Commission concludes that its rationale here does not violate the court's concern that the Commission had created a tax allowance to compensate for an income tax cost that is not actually paid by the regulated utility. As explained in detail by the comments summarized in sections A and D of Part II of this order, the reality is that just as a corporation has an actual or potential income tax liability on income from the first tier public utility assets it controls, so do the owners of a partnership or LLC on the first tier assets and income that they control by means of the pass-through entity.

35. The first tier income involves the investors in the pass-through entity holding the specific physical assets that are generating the public utility income that results in a potential or actual income tax liability. In the case of Trans-Elect, this would be the investment that the partnership made in the upgrade to the Path 15 transmission line in California. As discussed in *Trans-Elect, supra*, the owners of Trans-Elect NTD Path 15, LLC, are a Subchapter C corporation (PG&E) and one LLC, Trans-Elect, LLC.[31] If no income tax allowance is permitted on Trans-Elect NTD Path 15's public utility income, the return to the investing entities would be less than if PG&E had invested directly in the line.

36. As set forth in the previously cited examples provided in the comments discussed in section D of Part II of this policy statement, termination of the allowance would clearly act as a disincentive for the use of the partnership format for two reasons. First is the

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[30] The record suggests that there is a substantial amount of existing investment at issue in this proceeding. *See* Duke Energy at 2 (75 percent of $14.4 billion in energy infrastructure invested for the years 2001 through 2003 is in pass-through entities); Enbridge, Inc. at 4 (ownership interests in over 20,000 miles of crude oil, petroleum products, and natural gas pipelines); Enterprise Products Partners, L.P. at 1 (enterprise value of approximately $14 billion); Kaye Anderson at 1 (in excess of $1 billion in MLP equity); Publicly Traded Partnerships at 1-2, 13 (Figure 1 and text, market capitalization of publicly traded partnerships of $47.3 billion in 2004), and at 14, table of publicly traded partnerships owning and operating energy pipelines (market capital $38.5 billion.)

[31] *Trans-Elect, supra, note 8, at PP 2-4.* Trans-Elect develops merchant transmission lines. Trans-Elect comments at 1-2.

difference in the nominal return itself. The second is that the income taxes paid by two corporations investing in this situation would increase because one or both would not be able to benefit from the tax advantages of a consolidated income tax return.[32] It should be noted that if such first tier assets are owned only by Subchapter C corporations, their rates would include an income tax allowance designed to recover the 35 percent maximum corporate marginal tax rate.[33] The same result obtains if the assets are owned by a partnership or an LLC that is in turn owned either by Subchapter C corporations or by individual investors.

37. Thus, the policy the Commission is adopting should not result in increased costs to public utility ratepayers, and may actually reduce them if a partnership or LLC has a lower weighted marginal tax rate and fewer administrative expenses than the normal corporate ownership form.[34] The Commission therefore concludes that, as is argued by the commentors urging an income tax allowance for all public utility entities, providing an income tax allowance to partnerships in proportion to the interests owned by entities or individuals with an actual or potential income tax liability does not create a phantom income tax liability. The fact that some partnerships or LLCs may be used for financial investments rather than for making infrastructure investments does not warrant a different policy result here.[35] Moreover, the Commission emphasizes that the primary rationale for reaching the conclusion here is to recognize in the rates the actual or potential income tax

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[32] As discussed in the comments, if a Subchapter C corporation owns 80 percent or more of a subsidiary, there is no income tax paid by the subsidiary. All taxation is at the parent level through the use of a consolidated return. *See* Northern Border at 6-7 and 11-12; INGAA at 15-17.

[33] This analysis suggests that if partnerships and limited liability companies are not permitted to have an income tax allowance, there are strong incentives to shift to the taxable corporate ownership form. This could be done by converting a partnership to an LLC and then electing to have that entity taxed as a Subchapter C corporation. Once this was done, then the newly taxable entity, which would be operating the very same assets as it did as a pass-through entity, would be entitled to a 35 percent income tax allowance. *Cf.* AOPL at 9.

[34] As discussed in the WPPI and EEI comments, if a partnership or LLC has municipal governments as some of the partners or LLC members, the tax allowance is reduced because municipalities and their operating entities have no actual or potential income tax liability on utility income.

[35] The partners of master limited partnerships have actual tax liability for any income recognized by the partnership. However, distributions may substantially exceed partnership book income. Such distributions do have an ultimate income tax liability

liability ultimately attributable to regulated utility income. Having concluded that this will not result in phantom income taxes, it is then legitimate to conclude that the result here will facilitate important public utility investments such as that made by Trans-Elect NTD Path 15, LLC in the Path 15 upgrade.

38. In retrospect, it was the Commission's failure to distinguish between first and second tier income that lead to the double taxation rationale that the Commission incorrectly advanced in *Lakehead.* Dividends paid to the common stock investor and by the corporate investor in a pass-through entity are second tier income to such a common stock investor. As such, an income tax is paid by the investor in addition to the corporate tax that is due on the first tier income. In contrast, first tier income flows either to the corporation, a corporate partner, or individual partners (or LLC members) and is taxed at that level. To the extent *Lakehead* either concluded or assumed that dividend payments and income, and partnership distributions and income, have the same ownership and income tax characteristics, this is simply incorrect as a matter of partnership and income

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depending on the status of the capital account of the individual partners. This matter can present complex allocation and timing issues that would be addressed in individual rate proceedings. However, a simple numerical example can illustrate the basic principles. For example, assume that an individual invests $100 in a partnership and obtains a ten percent interest in that partnership. This establishes a partnership account (or basis) for the individual of $100. During year one of that investment the partnership has $100 in income before depreciation and depreciation of $70. The partnership therefore has net income of $30 and also makes a distribution of $100. Since the individual partner owns ten percent of the partnership, that partner must declare $3 in income on the individual's 1040 tax form, but does not pay taxes on the $10 distribution made to that partner.

The capital account of the individual partner is adjusted as follows. Ten percent of the partnership income before depreciations (or $10) is allocated to the individual partner and is added to that partner's account. Ten percent of the partnership depreciation, or $7, is deducted from the account, as is the cash distribution. The individual's partnership account therefore stands at $93 ($100 + $10 - $10 - $7). In year two the partnership income is zero and no distributions are made, so the individual's partnership account is unchanged. However, that individual partner sells the partnership interest for $105. This difference is taxable as follows. Since $7 of the sale price is a gain above the year 2 partnership account level of $93, it will be taxed as income. This results in a tax on the cash that was distributed in the prior year but for which no income tax was paid at that time. Depending on the nature of the depreciation taken, the $7 may be taxed as ordinary income through the operation of various recapture provisions. The additional $5 is also income and is also taxed, most likely at the capital gains rate since it is gain in excess of the partner's original capital investment of $100.

tax law.[36] The court summarized this situation succinctly when it stated that presumably both corporate owners and individuals would pay taxes on public utility assets they control. Similarly, like a Subchapter C corporation, partners may have deductions or losses that offset the income from a specific public utility asset or which may neutralize the operating income from the asset itself. But this does not preclude such a corporation from obtaining an income tax allowance under the Commission's stand-alone doctrine.[37] Just as there are no rational grounds for granting an income tax allowance on partnership interests owned by a corporation and denying one to those owned by individuals, there are no rational grounds for reaching a different conclusion for the deductions and offsets for taxpaying partners or LLC members.

39. The Commission further concludes that the alternatives listed at the beginning of this Part III of this policy statement are not practical or are inconsistent with the court's remand. First the Commission agrees with the court's conclusion in *BP West Coast* that the Commission in *Lakehead* did not articulate a rational ground for concluding that there should be no tax allowance on partnership interests owned by individuals, but that there should be one for partnership interests owned by corporations. As the court stated, presumably individual partners pay taxes on their public utility income just as corporate partners pay income tax on theirs. The comments summarized in sections A and D of Parts II of this order affirm that common sense observation. The court's rejection of *Lakehead* likewise establishes why the Commission cannot simply limit income tax allowances to partnerships that are wholly owned by corporations, since doing so in effect denies a tax allowance to the partners of a partnership with no corporate ownership.

40. Similarly, there no rational reason to limit the income tax allowance to public utility income earned by a corporation. Public utility income controlled directly by an individual may also be taxed. The partnership entity is simply an intermediate ownership device that leads to the same tax result. Since both partners and Subchapter C corporations pay income taxes on their first tier income, the inconsistency that undermined *Lakehead* applies here as well. Finally, the comments rightly suggest that it would be difficult to establish rates based on a pre-tax rate of return. If the Commission were simply to raise the rates to equalize the pre-tax and after-tax returns, all this would do incorporate a presumed marginal income tax rate into the rate structure. The result is the same for the rate payer although the nominal rate of return is much higher. Moreover, most comparable securities trade on the basis of a corporation's after-tax return on its public utility income.[38] Thus, it would be hard to determine what the appropriate pre-tax

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[36] *See* ATCLLC at 5.

[37] *See City of Charlottesville, supra,* note 12.

[38] As discussed, the investor then receives a dividend and pays a second tax on that

return should be based on traded equities alone. Since it is impractical not to give an income tax allowance to any jurisdictional entities due to the problems of determining an appropriate pre-tax rate of return, the Commission again concludes that an income tax allowance should be afforded all jurisdictional entities, provided that the owners of pass-through entities have an actual or potential income tax liability.

41. There are three final points that should be discussed in addressing the effect of the court's remand. First, the court concluded that denying a partnership an allowance on the proportion of partnership interests owned by individuals would not prevent over-recovery by such individuals, since any tax savings would be distributed in proportion to all the partnership interests. The Commission recognizes that rate payers should not incur the expense of an income tax allowance to the extent that an owning partner or LLC member has no actual or potential income tax liability for the income generated by the interest it owns. As WPPI and ATCLLC explain, this can be avoided by limiting the income tax allowance to a blended rate that reflects the income tax status of the owning interest.[39] The use of the weighting approach assures that the rate payers will not be charged more than the actual tax cost the investors incur regardless of the ownership form. The problems of over- and under-recovering alluded to in the court's order can be addressed through the distribution provisions of the partnership agreement.[40]

42. Second, whether a particular partner or LCC member has an actual or potential income tax liability, and what assumptions, if any, should determine the amount of the related tax rate, are matters that should be resolved in individual rate proceedings. This is a fact specific issue for which the relative data is uniquely within the control of the regulated entity. Thus, any pass-through entity desiring an income tax allowance on utility operating income must be prepared to establish the tax status of its owners, or if there is more than one level of pass-through entities, where the ultimate tax liability lies and the character of the tax incurred. This could be done through determining the distribution of ownership interests at the end of the standard test year. Finally, some parties assert that this proceeding is tainted by *ex parte* communications that preceded the issuance of the Commission's December 2, 2004 notice of inquiry. These are without merit as the relevant communications were filed in the appropriate dockets and the

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income to determine the investor's after tax return. This is somewhat less than the return from a partnership interest that benefits from an income tax allowance.

[39] WPPI at 5-6 and 12-13; ATCLLC at 6.

[40] The court was concerned that the income tax allowance granted for corporate partners would increase the cash available for distribution to all partners, thus providing an increased return to the individual partners that the *Lakehead* doctrine was intended to prevent. Adjustments within the partnership agreement should assure that this does not result while preserving the incentives to establish flexible investment vehicles.

Commission's notice of inquiry provided all interested parties an opportunity to comment. The decision here is based on the record developed by those comments.

The Commission orders:

The income tax allowance policy adopted in the body of this policy statement shall be applied in pending and future rate proceedings of public utilities subject to the Commission's rate jurisdiction.

By the Commission.

(S E A L)

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Attorneys for Pima Utility Company

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF PIMA UTILITY 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-02199A-11-0329
IN THE MATTER OF THE APPLICATION OF PIMA UTILITY 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-02199A-11-0330

REBUTTAL TESTIMONY OF

THOMAS J. BOURASSA

(RATE BASE, INCOME STATEMENT AND RATE DESIGN)

April 27, 2012

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I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND ADDRESS.

A. My name is Thomas J. Bourassa. My business address is 139 W. Wood Drive, Phoenix, Arizona 85029.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying in this proceeding on behalf of the applicant, Pima Utility Company, ("Pima" or the "Company").

Q. HAVE YOU PREVIOUSLY SUBMITTED DIRECT TESTIMONY IN THE INSTANT CASE?

A. Yes, my direct testimony was submitted in support of the initial application in this docket. There were two volumes, one addressing rate base, income statement and rate design, and the other addressing cost of capital.

Q. WHAT IS THE PURPOSE OF THIS REBUTTAL TESTIMONY?

A. To respond to the direct filings by Staff and RUCO. More specifically, this first volume of my rebuttal testimony relates to rate base, income statement and rate design for Pima. In a second, separate volume of my rebuttal testimony, I present an update to the Company's requested cost of capital as well as provide responses to Staff and RUCO on the cost of capital, the rate of return applied to the fair value rate base, and the determination of operating income.

II. SUMMARY OF PIMA'S REBUTTAL POSITION

Q. WHAT ARE THE REVENUE INCREASES FOR THE WATER AND WASTEWATER DIVISIONS THAT THE COMPANY IS PROPOSING IN THIS REBUTTAL TESTIMONY?

A. For the water division, the Company is proposing a total revenue requirement of $2,691,108, which constitutes an increase in revenues of $713,480, or 36.08% over adjusted test year revenues. For the wastewater division, Pima is proposing a total

revenue requirement of $3,514,104, which constitutes an increase in revenues of $417,329, or 13.48% over adjusted test year revenues.

Q. HOW DO THESE COMPARE WITH THE COMPANY'S DIRECT FILING?

A. They are both lower. In the direct filing for the water division, the Company requested a total revenue requirement of $3,001,192, which required an increase in revenues of $1,023,565, or 51.76%. In the direct filing for the wastewater division, the Company requested a total revenue requirement of $3,787,985, which required an increase in revenues of $691,210, or 22.32%. For the two divisions, the necessary revenue increase has decreased by just under $584,000.

Q. WHAT'S DIFFERENT?

A. In its rebuttal filing, Pima has adopted a number of adjustments recommended by Staff and/or RUCO, as well as proposed a number of adjustments of its own based on known and measurable changes to the test year, including an updated debt cost that has significantly reduced the Company's costs of service.

For the water division, the net result of these adjustments is: (1) the Company's proposed operating expenses have decreased by $109,232, from $1,845,067 in the direct filing to $1,735,835; and a net decrease of $24,205 in rate base from the direct filing of $9,097,529 to $9,073,324.

For the wastewater division, the net result of these adjustments is: (1) the Company's proposed operating expenses have decreased by $74,824, from $2,654,991 in the direct filing to $2,580,167; and a net decrease of $30,472 in rate base from the direct filing of $9,863,271 to $9,832,800.

The Company continues to recommend a cost of equity of 10.5%. The Company now proposes a reduction in the cost of debt to 4.25% from a recommendation of 7.182% in its direct filing. In addition, the Company proposes

a capital structure consisting of 35.36% debt and 64.64% equity compared to its direct filing of 31.1% debt and 68.9% equity. Based on the Company's rebuttal recommendation regarding the cost of debt, cost of equity, and the capital structure, the overall recommended weighted cost of capital (rate of return) has been reduced to 8.29% from a recommendation of 9.47% in its direct filing.

Q. THOSE ARE VERY SIGNIFICANT CHANGES IN THE CAPITAL STRUCTURE AND COST OF DEBT, MR. BOURASSA. HOW DID THEY COME ABOUT?

A. The Company received approval in March 2012 to borrow over $8 million.[1] The loan has not closed but it will in the near future, and the Company's ability to secure debt financing at such a low interest rate reflects a substantial cost savings to Pima and its customers.

Q. THANK YOU. WHAT ARE THE PROPOSED REVENUE REQUIREMENTS AND RATE INCREASES FOR THE COMPANY, STAFF, AND RUCO AT THIS STAGE OF THE PROCEEDING?

A. For the water division, the proposed revenue requirements and proposed rate increases are as follows:

	Revenue Requirement	Revenue Incr.	% Increase
Company-Direct	$3,001,192	$1,023,565	51.76%
Staff	$2,457,559	$ 479,932	24.27%
RUCO	$2,543,675	$ 566,048	28.62%
Company Rebuttal	$2,691,108	$ 713,480	36.08%

[1] *See* Decision No. 73078 (April 5, 2012).

For the wastewater division, the proposed revenue requirements and proposed rate increases are as follows:

	Revenue Requirement	Revenue Incr.	% Increase
Company-Direct	$3,787,985	$ 691,210	22.32%
Staff	$3,096,775	$ 170,345	5.50%
RUCO	$3,328,981	$ 232,207	7.50%
Company Rebuttal	$3,514,104	$ 417,329	13.48%

III. RATE BASE

A. Water Division Rate Base

Q. WOULD YOU PLEASE IDENTIFY THE PARTIES' RESPECTIVE RATE BASE RECOMMENDATIONS FOR THE WATER DIVISION?

A. Yes, for the water division the rate bases proposed by the Company, Staff and RUCO, are as follows:

	OCRB	FVRB
Company-Direct	$ 9,097,529	$ 9,097,529
Staff	$ 9,122,677	$ 9,122,677
RUCO	$ 9,073,286	$ 9,073,286
Company Rebuttal	$ 9,073,324	$ 9,073,324

1. Plant-in-Service (PIS) and Accumulated Depreciation (A/D)

Q. PLEASE DISCUSS THE COMPANY'S PROPOSED ORIGINAL COST RATE BASE FOR THE WATER DIVISION AND IDENTIFY ANY ADJUSTMENTS YOU HAVE ACCEPTED FROM STAFF AND/OR RUCO?

A. The Company's rebuttal rate base adjustments to the water division's OCRB are detailed on Rebuttal Schedules B-2, pages 3 through 5. Rebuttal Schedule B-2,

page 1 and 2, summarize the Company's proposed adjustments and the rebuttal OCRB.

Rebuttal B-2 adjustment 1, as summarized on Rebuttal Schedule B-2, page 2, consists of one adjustment labeled as "A" on Rebuttal Schedule B-2, page 3.

Adjustment A reflects the capitalization of certain test year operating expenses. All three parties now propose to capitalize certain test year expenses totaling $25,531.[2] There are no other proposed adjustments to PIS leaving all parties in agreement of the PIS balance of $14,571,659 at this stage of the proceeding.

Q. PLEASE DISCUSS THE COMPANY'S ADJUSTMENT TO ACCUMULATED DEPRECIATION.

A. Rebuttal B-2 adjustment 2, as summarized on Rebuttal Schedule B-2, page 2, consists of one adjustment labeled as "A" on Rebuttal Schedule B-2, page 4.

Adjustment A reflects additional accumulated depreciation of $383 related to the PIS adjustment reflected in Adjustment A on Rebuttal Schedule B-2, page 3. All three parties are in agreement on this adjustment.[3] There are no other proposed adjustments to A/D and all parties are in agreement of the PIS balance of $4,788,552 at this stage of the proceeding.[4]

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[2] Direct Testimony of Crystal S. Brown ("Brown Dt.") at 12; Direct Testimony of Robert B. Mease ("Mease Dt.") at 10.

[3] Brown Dt. at 13; Mease Dt. at 10.

[4] RUCO A/D balance is $4,788,550 - $2 less than Staff and the Company. This difference is due to rounding.

2. Advances-in-Aid of Construction (AIAC) and Contributions-in-Aid of Construction (CIAC)

Q. PLEASE DISCUSS THE COMPANY'S ADJUSTMENT TO ADVANCES-IN-AID OF CONSTRUCTION AND CONTRIBUTIONS-IN-AID OF CONSTRUCTION.

A. In rebuttal B-2 adjustment 3, as shown on Schedule B-2, page 2, the Company adopted RUCO's proposed adjustments to AIAC and CIAC—a decrease to AIAC of $374,236 and an increase to CIAC of $423,589.[5] The Company and RUCO are in agreement of the balance of AIAC ($0) and net CIAC ($709,783) at this stage of the proceeding. Staff has not proposed any adjustments to AIAC or CIAC.

B. Wastewater Division Rate Base

Q. WOULD YOU PLEASE IDENTIFY THE PARTIES' RESPECTIVE RATE BASE RECOMMENDATIONS FOR THE WASTEWATER DIVISION?

A. Yes, for the wastewater division the rate bases proposed by the Company, Staff and RUCO, are as follows:

	OCRB	FVRB
Company-Direct	$ 9,863,271	$ 9,863,271
Staff	$ 9,642,163	$ 9,642,163
RUCO	$ 9,832,800	$ 9,832,800
Company Rebuttal	$ 9,832,800	$ 9,832,800

1. PIS and A/D

Q. PLEASE DISCUSS THE COMPANY'S ADJUSTMENT TO PLANT-IN-SERVICE AND ACCUMULATED DEPRECIATION.

A. The Company's rebuttal rate base adjustments to the wastewater division's OCRB

[5] Mease Dt. at 9.

are detailed on Rebuttal Schedules B-2, pages 3 through 5. Rebuttal Schedule B-2, page 1 and 2, summarize the Company's proposed adjustments and the rebuttal OCRB.

Rebuttal B-2 adjustment 1, as summarized on Rebuttal Schedule B-2, page 2, consists of two adjustments labeled as "A" and "B" on Rebuttal Schedule B-2, page 3.

Adjustment A reflects the capitalization of certain test year operating expenses by the Company, Staff and RUCO totaling $22,391.[6] However, there is a difference between the Company and Staff with respect to which plant accounts are adjusted. The Company proposes a $9,179 to plant account 371.1 Pumping Equipment – Lift Stations and a $13,212 adjustment to plant account 380 Treatment and Disposal Equipment totaling $22,391 while Staff proposes a $22,391 adjustment to plant account 371.1 Pumping Equipment – Lift Stations.

Adjustment B reflects the removal of certain plant costs that were not included in the sewer division's prior rate case and reflects the adoption of RUCO's proposed adjustment to PIS. Although the Company does not agree with RUCO's rationale, the Company has adopted RUCO's proposal to remove $37,858 of plant costs from PIS in order to eliminate issues between the parties.[7]

The Company is not proposing any other proposed adjustments to PIS. The Company and RUCO agree to a PIS balance of $22,039,554 (including a $3 rounding difference). Staff's recommended PIS balance is $21,478,941, which is $560,613 lower than the Company's recommended PIS balance.

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[6] *See* Direct Testimony of Timothy J. Coley ("Coley Dt.") at 13; Brown Dt. at 12.

[7] Coley Dt. at 13.

Q. WHAT ARE THE REASONS FOR THE DIFFERENCE IN THE PIS BALANCES BETWEEN THE COMPANY AND STAFF?

A. Two reasons. First, Staff's PIS balance does not reflect the RUCO proposed adjustment of $37,858 discussed above. Second, Staff is proposing to remove $598,468 for excess capacity related to wastewater treatment.[8] The Company disagrees with Staff's proposal for the reasons explained by Mr. Jones in his rebuttal testimony.

Q. OKAY. PLEASE DISCUSS THE COMPANY'S ADJUSTMENT TO ACCUMULATED DEPRECIATION.

A. Rebuttal B-2 adjustment 2, as summarized on Rebuttal Schedule B-2, page 2, consists of one adjustment labeled as "A" and "B" on Rebuttal Schedule B-2, page 4.

Adjustment A reflects the additional accumulated depreciation of $383 and is related to the PIS adjustment reflected in Adjustment A on Rebuttal Schedule B-2, page 3. All three parties are in agreement on this adjustment.[9]

Adjustment B reflects the removal of $43,881 of accumulated depreciation and is related to the PIS adjustment reflected in Adjustment B on Rebuttal Schedule B-2, page 3. RUCO proposes a similar adjustment totaling $43,884 – a difference of $3, which is due to rounding. Since Staff has not proposed an adjustment to PIS for prior rate case plant costs, Staff does not have any corresponding adjustment of this nature.

There are no other proposed adjustments to A/D. The Company and RUCO are in agreement on the A/D balance of approximately $11,503,741.[10] Staff's

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[8] Brown Dt. at 7.

[9] Brown Dt. at 13; Mease Dt. at 10.

[10] RUCO A/D balance is $11,503,738 - $3 less than the Company. This difference is due to rounding.

recommended A/D balance of $11,191,864 is lower than the Company's recommended balance by $311,877. This difference is the result of: 1) Staff's A/D not including the $43,881 upward adjustment to A/D for prior rate case plant costs as reflected in the Company's proposed adjustment "B" discussed above; and, 2) Staff's proposed $356,088 downward adjustment to A/D related to its recommended disallowance of excess capacity plant costs.[11]

2. AIAC and CIAC

Q. PLEASE DISCUSS THE COMPANY'S ADJUSTMENT TO ADVANCES-IN-AID OF CONSTRUCTION AND CONTRIBUTIONS-IN-AID OF CONSTRUCTION.

A. In rebuttal B-2 adjustment 3, as shown on Rebuttal Schedule B-2, page 2, the Company adopted RUCO's proposed adjustments to AIAC and CIAC—a decrease to AIAC of $285,313 and an increase to CIAC of $343,412.[12] The Company and RUCO are in agreement of the balance of AIAC ($0) and net CIAC ($703,013) at this stage of the proceeding. Staff has not proposed any adjustments to AIAC or CIAC at this stage of the proceeding.

IV. INCOME STATEMENT

A. Revenue and Expenses – Water and Wastewater Divisions

1. Depreciation Expense

Q. WOULD YOU PLEASE DISCUSS THE COMPANY'S PROPOSED ADJUSTMENTS TO REVENUES AND EXPENSES FOR THE WATER AND WASTEWATER DIVISION AND IDENTIFY ANY ADJUSTMENTS YOU HAVE ACCEPTED FROM STAFF AND/OR RUCO?

A. The Company rebuttal adjustments for the Water Division are detailed on Rebuttal

[11] Brown Dt. at 7.
[12] Coley Dt. at 11.

Schedule C-2, pages 1-13. The rebuttal income statement with adjustments is summarized on Rebuttal Schedule C-1, page 1-2. The Company rebuttal adjustments for the Wastewater Division are detailed on Rebuttal Schedule C-2, pages 1-13. The rebuttal income statement with adjustments is summarized on Rebuttal Schedule C-1, page 1-2.

Rebuttal adjustment 1 reduces depreciation expense for the Water Division and increases depreciation expense for the Wastewater Division.

Depreciation expense for the Water Division is lower, primarily due to the impacts of the Company's proposed rebuttal adjustments to plant-in-service. The Company and RUCO are in substantial agreement on the computed level of depreciation expense for the Water Division. Staff's proposed depreciation expense is higher than the Company's. The difference in depreciation expense compared to Staff is due to a difference in the respective party's balance of PIS, CIAC, and in the CIAC amortization rate. For example, Staff's CIAC balance does not reflect the Company proposed adjustments to CIAC and, therefore, CIAC is lower and CIAC amortization is also lower, resulting in a lower level of depreciation expense.

Depreciation expense for the Wastewater Division is slightly higher, primarily due to the impacts of the Company's proposed rebuttal adjustments to plant-in-service. The Company and RUCO are in substantial agreement on the computed level of depreciation expense for the Wastewater Division. As mentioned, the Company has not adopted Staff's excess capacity adjustment so the related depreciation is absent from Staff recommended depreciation balance. Similar to the Water Division, Staff's CIAC balance is lower as it does not reflect the RUCO proposed adjustment to CIAC mentioned earlier.

2. **Property Taxes**

Q. PLEASE CONTINUE.

A. Rebuttal adjustment number 2 reduces property tax expense for both the Water Division and the Wastewater Division. The reduction is primarily due to the removal of tax on parcels, a correction to the licensed vehicles amount (Wastewater Division), and a correction to the CWIP balance (Wastewater Division). The corrections were based upon RUCO's comments.[13] The exclusion of tax on parcels reflects the balances for licensed vehicles, and CWIP now reflects the positions of RUCO and the Company.[14] Staff's licensed vehicle and CWIP balance for the Water Division are the same as the Company's.[15] However, Staff's licensed vehicle and CWIP balance for the Wastewater Division are different than the Company's.[16] The CWIP balance is different because Staff's schedules do not reflect the RUCO proposed adjustment to CWIP for capitalized expense.[17] The licensed vehicle balance is different because Staff utilizes the Company direct filing proposed balance. All the parties are in agreement on the method of computing property taxes, including the assessment ratio (20%). Staff and the Company agree on the property tax rate (10.445%) for the Water Division, whereas RUCO is recommending a property tax rate of 9.9552%.[18] Staff and the Company agree on the property tax rate (10.0552%) for the Wastewater Division, whereas RUCO is recommending a property tax rate of 10.0445%.[19] RUCO's

[13] Coley Dt. at 17 – 19.

[14] *See* Company Rebuttal Water and Wastewater Schedule C-2, page 3; RUCO Wastewater Schedule RBM-11; RUCO Wastewater Schedule TJC-10.

[15] *See* Company Rebuttal Water Schedule C-2, page 3; Staff Water Schedule CSB-17.

[16] *See* Company Rebuttal Wastewater Schedule C-2, page 3; Staff Wastewater Schedule CSB-18.

[17] Coley Dt. at 14.

[18] *See* Company Rebuttal Water Schedule C-2, page 3; Staff Water Schedule CSB-17; RUCO Schedule RBM-11.

[19] *See* Company Wastewater Schedule C-2, page 3; Staff Wastewater Schedule CSB-18; RUCO Schedule TJC-10.

recommended level of adjusted test year property taxes is lower than the Company's due to the lower tax rate.

Q. WHY ARE RUCO'S PROPERTY TAX RATES DIFFERENT?

A. RUCO's property tax rates appear to be based, in part, on property taxes related to parcels (land) that are assessed differently (10% and 16% assessment ratios) but which should not be included in the calculation.[20] The primary reason for excluding parcel (land) information is that taxes on parcels (land) are not revenue based like the majority of the Company's property tax expense. As a result, RUCO has understated property tax expense for both the Water Division and Wastewater Division.

Q. SHOULDN'T ALL WATER AND WASTEWATER UTILITY OPERATING PROPERTY BE CENTRALLY VALUED BASED ON REVENUES?

A. In theory, yes. However, in many cases utilities also receive tax bills on parcels that are not centrally valued or revenue-based; rather these tax bills are based on the county's assessment of value. Therefore, the property tax rates for bills on parcels based on value have to be excluded from the calculation of the property tax rate for revenue-based, centrally-valued properties. RUCO failed to do so and its calculation is in error.

3. <u>Rate Case Expense</u>

Q. PLEASE CONTINUE.

A. For both the water and wastewater divisions, rebuttal adjustment number 3 removes all rate case expense from operating expenses. The Company still seeks to recover rate cases expense, but proposes to recover Staff's recommended level of rate case expense via a surcharge as recommended by RUCO.

[20] After examination of RUCO's work papers it appears RUCO includes parcels in its computation of the property tax rate.

Q. WHY A SURCHARGE?

A. Because a surcharge recovery mechanism eliminates concerns surrounding the over or under recovery of rate case expense. It is time the Commission stopped treating it as a "normalized" operating expense.

Q. WHAT DO YOU MEAN BY A "NORMALIZED EXPENSE"?

A. Normalization refers to setting an expense level at an amount expected to be incurred on an annual basis. The actual expense incurred may be higher or lower than the normalization amount, but over time it is assumed that average actual expense will converge to the normalized level.

Q. BUT RATE CASE EXPENSE IS NOT INCURRED ON AN ANNUAL BASIS.

A. Exactly. Rate case expense is not incurred every year in connection with day-to-day operations of the utility. The vast majority of it is incurred outside a test year for the specific purpose of obtaining new rates from the Commission. And because rate case expense is incurred long before the new rates are put into effect, it is by definition a prepaid expense under GAAP and should be recorded as an asset and amortized, not normalized. Amortization refers the "expensing" of an asset over the expected benefit period and this ensures the proper matching of expenses with revenues.

Q. WHY IS THE DIFFERENCE BETWEEN "NORMALIZING" AND "AMORTIZING" RATE CASE EXPENSE RELEVANT?

A. Because Staff and RUCO have convinced the Commission to use a normalization approach to preclude a utility from recovering unrecovered rate case expense if it seeks new rates sooner than the assumed normalization period. For example, if a utility's annual rate cases expense was amortized over 5 years and it sought and received new rates before the end of 5 years, recovery of this unrecovered amount would be forfeited.

Q. BUT DOESN'T THAT PROBLEM WORK BOTH WAYS?

A. Yes. Conversely, if the utility waited longer than 5 years to get new rates, it would over recover rate case expense. That's why we are adopting RUCO's recommended surcharge. A surcharge mechanism not only solves the issue of potential over or under recovery of rate case expense, it is entirely consistent with GAAP.

Q. WHY DOES RUCO RECOMMEND A SURCHARGE?

A. According to RUCO, the traditional rate recovery for rate case expense is an inequitable solution. This is so, RUCO argues, because Pima is "not likely" to come in for new rates for another "15-20 years."[21]

Q. DO YOU AGREE WITH RUCO THE COMPANY WILL FILE LESS OFTEN BECAUSE IT HAS REACHED FULL BUILDOUT?

A. No. RUCO witnesses, Mr. Mease and Mr. Coley, actually have it backwards. Sometimes the need to file for new rates can be delayed when a utility's customer growth and corresponding revenue growth keep pace with increases in the cost of service. In fact, steady growth in the past did help Pima avoid the need for rate increases.[22] However, when a utility reaches full build out, revenues can only grow to keep up with increases in the cost of service by filing for new rates. Mr. Mease and Mr. Coley ignore this, as well as evidence that Pima's systems have aged and some facilities have reached the end of their useful lives.[23] In his rebuttal testimony, Mr. Soriano explains further why Pima will be required to seek regular rate increases going-forward.[24]

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[21] Mease Dt. at 19; Coley Dt. at 26.

[22] *See* Direct Testimony of Steven Soriano ("Soriano Dt.") at 5.

[23] *Id.* at 5 – 6.

[24] *Id.*

Q. IF YOU AND MR. SORIANO BOTH REJECT RUCO'S REASONING, WHY IS THE COMPANY ADOPTING ITS RECOMMENDED RATE CASE EXPENSE SURCHARGE?

A. Because RUCO is right that the typical normalization of rate case expense doesn't work well, for Pima or any other utility. Given the nature of this expense, as I discussed above, and the fact that it lends itself to recovery in a specific amount over a time certain, RUCO's recommended surcharge is the right remedy, despite its being offered for flawed reasons. It is also the only one of RUCO's several alternatives that is not unreasonable.

Q. BUT WHY FIVE YEARS IF PIMA EXPECTS TO COME IN ON A MORE REGULAR BASIS?

A. We have used a five-year recovery period because Staff recommends five years as its normalization period.[25] Of course, by using a surcharge, it won't really matter when Pima comes in again for new rates.

Q. WHY IS THAT, MR. BOURASSA?

A. Because a surcharge will ensure the utility recovers only the amount it is authorized to recover, no more and no less. Again, rate case expense will no longer be "normalized."

Q. WHAT WOULD BE THE AMOUNT OF THE SURCHARGE IF THE COMPANY'S RECOMMENDATION WERE ADOPTED?

A. Based on an annual rate case expense of $40,000 and the year-end number of customers of 10,188, the surcharge would be $0.33 per monthly customer bill per division ($40,000 divided by 10,188 divided by 12). The surcharge would cease once the entire rate cases expense is recovered.

[25] Brown Dt. at 23.

Q. WHAT ABOUT RUCO'S RECOMMENDED LEVEL OF RATE CASE EXPENSE?

A. RUCO recommends rate case expense of $150,000 amortized over four years, or $37,500 annually for each division.[26] RUCO bases its recommendation on comparisons to levels of rate case expense authorized in other rate cases. RUCO witnesses, Mr. Mease and Mr. Coley, make reference to the recent Sunrise Water Company rate case and to pending Arizona Water Company and UNS Gas rate cases.[27]

Q. WHAT'S WRONG WITH RUCO'S COMPARISON?

A. RUCO has failed to adequately consider the obvious differences between the proceedings used as comparables. Sunrise is roughly 1/20 the size of Pima and serves only water. Arizona Water Company and UNS Gas, while much larger, both have in-house rate case staff.

Q. ARE THERE OTHER COMPARABLES YOU WOULD USE?

A. Yes, but with caution. In the recent Chaparral City Water Company (CCWC) rate case (Decision No. 68176 (September 30, 2005)), the Commission authorized $285,000 of rate case expense amortized over 4 years, or approximately $71,250 annually. CCWC is about 25% larger than Pima's water division, but does not have a sewer division. In the recent Litchfield Park Service Company (LPSCO) rate case (Decision No. 72026 (December 10, 2010)), the Commission authorized $420,000 of rate case expense ($210,000 for its water division and $210,000 for its wastewater division) amortized over 3 years, or approximately $70,000 annually for each division. LPSCO is 1.4 times larger than Pima. Like Pima, both LPSCO

[26] Mease Dt. at 14; Coley Dt. at 22.
[27] Mease Dt. at 15; Coley Dt. at 22.

and CCWC lack internal regulatory staff, which staff reduce the cost of rate case. Of course, labor costs are still recovered, just not as rate case expense.

Q. WHY DO YOU ADVISE CAUTION WHEN COMPARING RATE CASE EXPENSE BETWEEN UTILITIES?

A. Because the amount of rate case expense a company incurs can vary substantially on a case-by-case basis for a variety of reasons.[28] And the best indicator of rate case expense is the amount actually incurred unless it is plainly unreasonable. Moreover, in this case, two of the three parties agree on the amount of this expense and adopting RUCO's lower number would end up creating a dispute that has the perverse impact of increasing the very expense at issue.

In the end, $200,000 amortized over 5 years, or $40,000 per year per division, to be collected via a surcharge until recovered is clearly just and reasonable.

4. <u>Salaries and Wages</u>

Q. PLEASE CONTINUE WITH YOUR DISCUSSION OF THE COMPANY'S REBUTTAL REVENUE AND EXPENSE ADJUSTMENTS.

A. For both the water and wastewater divisions, rebuttal adjustment number 4 reduces salaries and wages for officers and directors by $50,096 to $40,198.

Q. WHAT ARE THE POSITIONS OF THE OTHER PARTIES WITH RESPECT TO WAGES AND SALARIES FOR OFFICERS AND DIRECTORS?

A. RUCO reduces this expense by $83,209 to $7,085.[29] Staff reduces this expense by $76,608 to $13,686.[30] The Company disagrees with both adjustments and believes

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[28] Direct Testimony of Thomas J. Bourassa ("Bourassa Dt.") at 13.
[29] Mease Dt. at 21 – 22; Coley Dt. at 30.
[30] Brown Dt. at 17.

the level of salaries and wages for officers and directors is reasonable given the level authorized in the last rate case for Mr. Robson, and the value of the services provided by Mr. Robson. The Company's response to Staff's recommendation is discussed in more detail in the rebuttal testimony of Mr. Soriano.

5. Employee Pensions and Benefits

Q. DID STAFF ALSO REDUCE EMPLOYEE PENSION AND BENEFITS EXPENSE?

A. Yes. Staff also reduced employee benefits expense by $1,378 for amounts related to its adjustment to salaries and wages for officers and directors for both divisions.[31] The Company proposes no adjustment to employee pensions and benefits for either division. An adjustment to employee pensions and benefits is not warranted because there are no employee pension and benefit costs related to Mr. Robson's salary in the expense.

6. Office Supplies and Expense

Q. PLEASE CONTINUE.

A. For both the water and wastewater divisions, adjustment number 5 reduces office supplies and expense by $460. These adjustments reflect the adoption of Staff's proposed adjustment to this expense.[32] RUCO has not proposed a similar adjustment.

7. Repairs and Maintenance/ Materials and Supplies

Q. PLEASE DISCUSS THE COMPANY PROPOSED ADJUSTMENTS TO REPAIRS AND MAINTENANCE FOR THE WATER DIVISION AND MATERIALS AND SUPPLIES FOR THE WASTEWATER DIVISION.

A. For the Water Division, rebuttal adjustment 6 reduces repairs and maintenance

[31] Brown Dt. at 18.
[32] Brown Dt. at 20.

expense by $29,489. Of this amount $21,629 relates to capitalized expenses. Both RUCO and Staff propose similar adjustments.[33] The remaining $7,680 is to reduce expense related to normalizing tree removal costs. The $7,680 reduction reflects the adoption of Staff's proposed tree removal normalization.[34]

For the Wastewater Division, rebuttal adjustment 6 reduces materials and supplies expense by $22,391 related to capitalized expenses. Both RUCO and Staff propose similar adjustments.[35]

8. <u>Contractual Services – Engineering</u>

Q. PLEASE DISCUSS THE COMPANY PROPOSED ADJUSTMENTS TO CONTRACTUAL SERVICES – ENGINEERING.

A. For the Water Division, rebuttal adjustment 7 reduces contractual services - engineering by $3,902 and reflects the adoption of Staff's proposed adjustment to capitalize expenses.[36] RUCO proposes a similar adjustment.[37]

For the Wastewater Division, rebuttal adjustment 7 reduces contractual services - engineering by $19,524 and reflects the adoption of Staff's proposed adjustment to capitalize expenses.[38] RUCO proposes a similar adjustment.[39]

9. <u>Contractual Services – Testing</u>

Q. PLEASE DISCUSS THE COMPANY PROPOSED ADJUSTMENTS TO CONTRACTUAL SERVICES – TESTING.

A. For the Water Division, rebuttal adjustment 8 reduces contractual services – water testing by $9,812 in order to reflect Staff's recommended level of testing

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[33] Mease Dt. at 13, Brown Dt. at 19.
[34] Brown Dt. at 19.
[35] Coley Dt. at 20, Brown Dt. at 19.
[36] Brown Dt. at 21.
[37] Mease Dt. at 5.
[38] Brown Dt. at 21.
[39] Coley Dt. at 21.

expense.[40] RUCO has not proposed a similar adjustment.

For the Wastewater Division, rebuttal adjustment 8 increases contractual services – water testing by $12,157 in order to reflect Staff's recommended level of testing expense.[41] RUCO has not proposed a similar adjustment.

10. Contractual Services – Other

Q. PLEASE DISCUSS THE COMPANY PROPOSED ADJUSTMENTS TO CONTRACTUAL SERVICES – TESTING.

A. For the Water Division, rebuttal adjustment 9 reduces contractual services – other by $415 for bonuses and reflects the adoption of Staff's proposed adjustment.[42] RUCO has not proposed a similar adjustment.

For the Wastewater Division, rebuttal adjustment 9 reduces contractual services - other by $7,138 for bonuses ($438) and bond fees ($6,700) and reflects the adoption of Staff's proposed adjustment.[43] RUCO has not proposed a similar adjustment.

11. Miscellaneous Expense

Q. PLEASE DISCUSS THE COMPANY PROPOSED ADJUSTMENTS TO MISCELLANEOUS EXPENSE.

A. For the Water Division, rebuttal adjustment 10 reduces miscellaneous expense by $6,354 for wastewater related bank fees. This adjustment reflects the adoption of RUCO's proposed adjustment.[44] Staff has not made a similar adjustment.

For the Wastewater Division, rebuttal adjustment 10 increases miscellaneous expense by $6,354 for wastewater related bank fees recorded in the Water Division

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[40] Brown Dt. at 23.
[41] Brown Dt. at 23.
[42] Brown Dt. at 22.
[43] *Id.*
[44] Mease Dt. at 20.

expenses. This adjustment reflects the adoption of RUCO's proposed adjustment.[45] Staff has not made a similar adjustment.

12. Interest Synchronization

Q. PLEASE DISCUSS THE COMPANY PROPOSED INTEREST SYNCHRONIZATION ADJUSTMENTS TO INTEREST EXPENSE.

A. For both the water and wastewater divisions, rebuttal adjustment 11 synchronizes interest expense with rate base. The resulting interest expense impacts the income tax computation for each division. Staff and RUCO do not propose to interest synchronize.

13. Income Taxes

Q. PLEASE DISCUSS THE COMPANY PROPOSED INCOME TAX ALLOWANCE.

A. For both the water and wastewater divisions, rebuttal adjustment 13 adjusts income taxes to the computed taxes on the Company adjusted level of income subject to tax. The income tax computation utilizes the synchronized interest expense deduction discussed above in the computation. The Company continues to recommend that the effective income tax rate be based on the actual effective tax rates for individuals and entities along with their proportionate share of income at proposed revenues using the applicable federal and state tax rates. Staff and RUCO do not propose an income tax allowance and therefore make no adjustment for income taxes.

Q. WHY DON'T RUCO AND STAFF INCLUDE AN INCOME TAX ALLOWANCE IN RATES?

A. The primary reason is that tax pass-through entities like Subchapter S corporations

[45] Coley Dt. at 28.

do not actually pay the income taxes generated from their income, their shareholders do.[46] Pima is an S corporation.

Q. IS ACTUAL PAYMENT IN THE AMOUNT OF THE EXPENSE A PREREQUISITE TO RECOVERY?

A. No. First, Marc Spitzer, a former ACC and FERC Commissioner, is testifying in this case and as he explains, what matters is the tax liability, not the tax payment.[47]

Q. ISN'T THIS UNUSUAL IN RATEMAKING THOUGH – USING AN EXPENSE THAT ISN'T AN ACTUAL EXPENSE OF THE UTILITY?

A. No, it is how the entire process works actually. In Arizona, the Commission utilizes an historical test year – a snapshot of the utility presumed to reflect the normal level of revenue and expenses expected during the period rates will be in effect.[48] However, actual revenues and expenses are almost always going to be different than the levels estimated during a rate case. This can be for a variety of reasons, but in the simplest terms, all operating expenses used in determining a revenue requirement are estimates. Then, in some cases, the Commission includes purely hypothetical levels of expense in the determination of a revenue requirement.

Q. CAN YOU PROVIDE EXAMPLES TO ILLUSTRATE WHAT YOU MEAN REGARDING ESTIMATING EXPENSES AND HYPOTHETICAL EXPENSES?

A. Yes. Purchased water and purchased power are good examples. While these two major expenses are often adjusted to reflect <u>known and measurable</u> changes in the rates for water or for electric power from the utility's providers (e.g. the Central

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[46] Brown Dt. 25 – 26; Direct Testimony of William A. Rigsby ("Rigsby Dt.") at. 5.
[47] Rebuttal Testimony of Marc L. Spitzer at 10 – 12.
[48] *See* Arizona Administrative Code R-14-2-103.

Arizona Project or APS), the increases in the rates charged by the providers that occur between rate cases are not captured in rates. Utilities often incur and pay levels of these expenses that are much greater than the estimated amounts used to make rates. Another example is salaries and wages.

Again, the objective during a rate case is to capture the full annualized wages of all employees in rates. But, subsequent to the rate case, the utility may lose an employee for various reasons and the position may be vacant for several months. All things remaining equal, the utility would pay less for salaries and wages in a given year due to vacancies. The opposite is also true. A utility may need to add positions that result in increased costs or it may fill positions with personnel who demand higher pay. Annual wages increases between rate cases are also not captured in rates.

The use of estimates is a basic function of the ratemaking process all geared toward providing a utility a reasonable opportunity (not a guarantee) to recover its reasonable costs of providing service and to earn its authorized return on its investments. The actual revenues and expenses may turn out to be different than the estimates. With rare exception, the rates are not adjusted retrospectively to true-up for the revenues and expenses actually incurred.

Q. PLEASE CONTINUE.

A. With respect to hypothetical expenses, in the recent Gold Canyon Sewer Company ("GCSC") rate case,[49] the Commission adopted RUCO's recommendation to use a hypothetical capital structure, hypothetical debt cost, and a hypothetical interest expense deduction through interest synchronization. GCSC did not have any actual debt in its capital structure, had no interest deduction for tax purposes, and its

[49] *See Gold Canyon Sewer Company*, Decision 70624 (November 19, 2008).

actual income taxes would be much greater than the income tax allowance included in the ratemaking equation.[50] But, as Mr. Rigsby explained in that case, the inclusion of a purely hypothetical interest expense provided a "savings" to ratepayers of $278,000.[51] This is not the only rate case in which the Commission has used a purely hypothetical expense to set rates.

Given the fact that "actual" payments have no role in setting a revenue requirement, and that estimates and hypotheticals are perfectly fine, I find Staff and RUCO's argument that Pima does not actually pay income taxes to be a smoke screen and of little merit, except to obfuscate the real issue.

Q. WHAT IS THE REAL ISSUE, MR. BOURASSA?

A. That Pima's provision of water and wastewater utility service undeniably gives rise to an annual actual or potential tax liability. Neither Staff nor RUCO dispute this fact.[52]

Q. BUT THE LIABILITY IS ON THE SHAREHOLDERS, CORRECT?

A. Yes, but so what? But for the utility service rendered by Pima, there would be no tax liability. Therefore, the tax liability is a cost of service just like depreciation, salaries and wages, and purchased power. Staff recognized this to be true more than 20 years ago.[53]

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[50] *See* Rehearing Testimony of Thomas J. Bourassa (filed October 30, 2007, Docket SW-02519A-06-0015) at 12 – 17.

[51] *See* Rehearing Testimony of William A. Rigsby (filed September 28, 2007, Docket SW-02519A-06-0015) at 30.

[52] Rigsby Dt. at 4; Brown Dt. at 26.

[53] *See* Staff's Exceptions to Hearing Officer's Proposed Opinion and Order (filed December 29, 1987, in *Consolidated Water Utilities, Ltd.*, Docket Nos. E-1009-86-216, E-1009-86-217 & E-1009-86-332 (consolidated)) at 6:18-22.

Q. BUT ALLOWING AN INCOME TAX ALLOWANCE WOULD RESULT IN HIGHER RATES COMPARED TO NO INCOME TAX ALLOWANCE. CORRECT?

A. Sure, and allowing recovery of power expense would make rates higher than if recovery of purchased power were denied. Again, the question is whether the expense is a legitimate cost of service and, if so, whether the amount to be included in rates is known and measurable and reasonable and prudent.

Q. BUT MR. BOURASSA, IF THE COMPANY DOES NOT PAY THE TAX, HOW CAN YOU ENSURE THAT THE AMOUNT OF EXPENSE INCLUDED IS REASONABLE AND PRUDENT?

A. Just as we do in every case for computing the income tax allowance for a C corporation—compute the effective tax rate based upon the income that is subject to tax and then provide for an income tax allowance based upon that effective tax rate. To achieve a similar outcome for an S corporation the income tax allowance computation requires first drilling down to the ownership level until a taxable or nontaxable entity is reached, then establishing a marginal tax rate for each taxable entity, and finally calculating a weighted average tax rate for the combined ownership and applying that tax rate for calculating income tax allowance. This is exactly the approach taken by the Company in this case.[54]

[54] Bourassa Dt. at 17.

V. RATE DESIGN

A. Water Division

1. Proposed Rates – Water Division

Q. WHAT ARE THE COMPANY'S REBUTTAL PROPOSED RATES FOR WATER SERVICE?

A. The Company's proposed rates are:

MONTHLY SERVICE CHARGES

5/8" x 3/4" Meter	$ 6.75
3/4" Meter	$ 6.75
1" Meter	$ 18.94
1 1/2" Meter	$ 24.86
2" Meter	$ 30.78
3" Meter	$ 47.36
4" Meter	$ 61.57
6" Meter	$118.40
Irrigation	$200.00
Gallons in minimum (all classes, except irrigation)	0
Gallons in minimum (irrigation)	0

COMMODITY RATES

5/8"X3/4" Meter – Res.	1 to 4,000	$ 0.93
	4,001 to 10,000	$ 1.28
	Over 10,000	$ 1.68
5/8"X3/4" Meter – Com.	1 to 10,000	$ 1.28
	Over 10,000	$ 1.68

3/4" Meter – Res.	1 to 4,000	$ 0.93
	4,001 to 10,000	$ 1.28
	Over 10,000	$ 1.68
3/4" Meter – Com.	1 to 10,000	$ 1.28
	Over 10,000	$ 1.68
1" Meter – Res., Com.	1 to 25,000	$ 1.28
	Over 25,000	$ 1.68
1 ½" Meter – Res., Com.	1 to 50,000	$ 1.28
	Over 50,000	$ 1.68
2" Meter – Res., Com.	1 to 80,000	$ 1.28
	Over 80,000	$ 1.68
3" Meter – Res., Com.	1 to 160,000	$ 1.28
	Over 160,000	$ 1.68
4" Meter – Res., Com.	1 to 250,000	$ 1.28
	Over 250,000	$ 1.68
6" Meter – Res., Com.	1 to 500,000	$ 1.28
	Over 500,000	$ 1.68
Irrigation – all meter sizes	All gallons	$ 0.55
Standpipe (bulk)	All gallons	$ 1.68

Q. WHAT WILL BE THE AVERAGE 5/8 INCH RESIDENTIAL CUSTOMER AVERAGE MONTHLY BILL UNDER THE NEW RATES?

A. As shown on Schedule H-2, page 1, the average monthly bill under proposed rates for a 5/8x3/4 inch residential customer using an average 6,395 gallons is $13.52—a $2.86 increase over the present monthly bill or a 26.82 percent increase.

2. **Comments on Staff Rate Design**

Q. PLEASE COMMENT ON THE PROPOSED RATE DESIGN OF STAFF.

A. Like the Company, Staff is proposing an inverted three tier design for the 5/8 inch metered customers and an inverted two tier design for the 3/4 inch and larger metered customers. Staff's break-over points increase with meter size, but Staff's are different than the Company's. The Company's proposed break-over points are scaled on the meter size relative to a 5/8x3/4 inch meter. It is not clear how Staff determined their proposed break-over points as Staff has not provided an explanation.

Q. DO YOU AGREE WITH STAFF'S BREAK-OVER POINTS?

A. No. I will explain further by providing a few examples referring to Staff Water Schedule CSB-19. For starters, Staff's break-over points for the 5/8x3/4 inch metered residential customers are 4,000 gallons and 10,000 gallons respectively. This is a typical design for the small residential meters like the 5/8x3/4 inch and the 3/4 inch residential meters. However, the break-over points for the 3/4 inch metered residential customers are 4,000 gallons and 21,000 gallons. Because both of these customer classes have the same monthly minimum, they should have the same break-over points. Otherwise the 3/4 inch residential customer receives a more favorable rate design. Unless there is a very compelling reason for the more favorable rate design, which Staff does not provide, the break-over point should be the same.

Moving on, the 21,000 gallon second tier for the 3/4 inch metered residential customers also conflicts with the design for the break-over points for the 5/8 x3/4 inch and the 3/4 inch metered commercial customers which is 10,000 gallons. Let me explain. As is typical for rate designs adopted by this Commission, the commercial customers are on a two-tier inverted rate design. It is

also typical to set the first tier of the small commercial meters (5/8x3/4 inch and 3/4 inch meters) at the second tier level of the 5/8x3/4 inch residential meters; in this case, 10,000 gallons. This is true particularly when the monthly minimums for the small residential meters and the small commercial meters are the same, which they are. The residential customers have a somewhat more favorable rate design than the small commercial meters in that the small residential meters are afforded the lowest priced commodity rate for the first 4,000, but this advantage is somewhat offset by providing more gallons in the first tier of the small commercial meters. On balance, the typical rate design for small residential (inverted three-tier) and small commercial customers (inverted two-tier) is considered fair; assuming of course the differential between the lowest priced commodity rate and the higher priced commodity rates are reasonable.

Moving on to the larger meter sizes, there is only a 5,000 gallon differential between the break-over points for the 1 inch, 1½ inch and 2 inch metered customers (residential and commercial): the 1 inch break-over point is set at 21,000 gallons; the 1½ inch meter break-over point is set at 26,000 gallons; and the 2 inch meter break-over point is set at 31,000 gallons. Unless there is a compelling reason for the narrow differentials between the break-over points for these size meters points it makes little sense to adopt them. Typically, the break-over points for the larger meters are scaled on the flows of a 5/8x3/4 meter. The result is something like the Company recommended break-over points, *e.g.* 25,000 gallons for the 1 inch meters (a flow factor of 2.5 times the 10,000 gallons second tier break-over point for the 5/8x3/4 inch meters), 50,000 gallons for the 1.5 inch meters (a flow factor of 5 times the 10,000 gallons second tier break-over point for the 5/8x3/4 inch meters), and 80,000 gallons for the 2 inch meters (a flow factor of 5 times the 10,000 gallons second tier break-over point for the 5/8x3/4 inch meters).

Q. WHAT IS THE RATIONALE BEHIND PROVIDING MORE GALLONS IN THE FIRST TIER FOR THE LARGER METERS?

A. The larger metered customers pay more than the smaller metered customers for their respective monthly minimums and should be afforded more gallons in the first tier.

Q. DOESN'T STAFF'S BREAK-OVER POINTS AND MONTHLY MINIMUMS INCREASE WITH METER SIZE?

A. Yes, except that Staff's break-over points are neither set relative to the meter flows of a 5/8x3/4 inch meter nor are they set relative to the monthly minimum of the 5/8x3/4 inch metered customers, which would make more sense absent some compelling reason to do otherwise. But Staff has not explained or provided a rationale for its proposed break-over points.

Q. WHAT ABOUT STAFF'S COMMODITY RATES?

A. Like, the Company's commodity rates, the first tier commodity rate for 3/4 inch and larger metered commercial customers is the same as the second tier of the 5/8x3/4 inch metered residential customers. The second tier of the 3/4 inch and larger metered commercial customers is the same as the third tier of the 5/8 inch metered commercial customers. The primary difference between the Company and Staff is that Staff provides a very low first tier commodity rate.

Q. WHAT CONCERNS DO YOU HAVE WITH STAFF'S PROPOSED COMMODITY RATES?

A. Staff is <u>discounting</u> water service and generating a subsidy (i.e., selling water well far below cost in the first rate block) for the 5/8x3/4 inch metered residential customers, the largest customer class. Further, larger metered customers reach the highest priced commodity rates sooner due to the relatively low break-over points. As a result, customers that use large amounts of water for various residential and

non-residential purposes will be required to pay much more than the cost of service which ends up providing a significant subsidy for the low use residential customers.

Q. WHAT IS WRONG WITH THIS?

A. To begin with, Staff is pricing water far below the current $0.92 rate. As a result, Staff is sending the wrong price signal for conservation to customers. Staff is recommending an overall increase in water revenues of about 24 percent, yet Staff's recommended commodity rate for the first tier is decreased by 18.4 percent to $0.75 per thousand. The commodity rate in the second tier is increased by only about 5.8 percent over the current commodity rate. In contrast to the first and second tier increases, the commodity rate in the third tier will be increased by about 59 percent.

Apparently Staff no longer believes it necessary to send a price signal to customers falling in the first and second tiers because after nearly 20 years, the cost of water is little changed, or worse, it is cheaper than it was in 1992. Sadly, this is the illogical end-result of Staff's revenue shifting run-amok. No longer does Staff just want to make water cheap for small residential users. It appears Staff no longer believes that anyone but the largest users need to conserve. I can only hope the ALJ and Commission realize that it is not just the utilities crying over the increased risk of revenue erosion. Instead, left to Staff's devices, rate design is now more of a social tool than a ratemaking one.

In my view, the water conservation goal is important but it is equally important to provide revenue stability to the utility in order to have financially healthy utilities. These two goals often conflict with each other. The ultimate objective should be to find a reasonable balance between the two. In my view, the Staff rate design is unbalanced and should not be adopted.

Q. HAVE YOU PREPARED ANY SCHEDULES TO ILLUSTRATE THE UNBALANCED NATURE OF STAFF'S RATE DESIGN?

A. Yes. Included as Rebuttal Exhibit TJB-RB1 is a schedule similar to the Company's H-1. This schedule shows the revenues recovered from each customer class under present rates and the Staff proposed rates. As the schedule shows, under the current rates, approximately 64.5 percent of revenues are provided by the 5/8x3/4 inch metered residential customers. Under Staff's proposed rates, the proportion of total revenues recovered from this customer class drops to about 55.8 percent. There is a dramatic shift in revenue recovery away from the 5/8x3/4 inch metered residential customers. Remember, the 5/8x3/4 inch metered residential customers represent the largest customer class (96 percent of total customers).

In contrast, as shown on Rebuttal Schedule H-1, the Company's proposed rates recover approximately 61.9 percent of revenues from this class compared to current rates at 64.5 percent. This shift is less dramatic.

Q. TO WHICH CUSTOMER CLASS IS THE REVENUE RECOVERY PRIMARILY SHIFTED TO UNDER THE STAFF RATES?

A. The most dramatic increase in the revenue recovery to a customer class occurs with the irrigation class. Under current rates, approximately 15.7 percent of revenues are recovered from the irrigation class. Under Staff's proposed rates approximately 24.3 percent of revenues are recovered from the irrigation class. Contrast this with the Company's rate design which recovers approximately 17.6 percent of revenues from the irrigation class under the proposed rates.

Q. HAVE YOU PREPARED ANY SCHEDULES TO DEMONSTRATE HOW STAFF'S RATE DESIGN IMPACTS THE AVERAGE CUSTOMERS?

A. Yes, Rebuttal Exhibit TJB-RB2 is similar to the H-2 schedule contained in the Company's rebuttal filing. The H-2 shows the average bill at present and proposed

rates. Staff is recommending an overall revenue increase of about 24 percent. But, as shown on the schedule, Staff is providing only a 7.3 percent increase on the average 5/8x3/4 inch metered residential customers—less than about one-third of the overall percent increase of 24 percent. In contrast, as shown on the Company's Rebuttal Schedule H-2, the average 5/8x3/4 inch metered residential customers will see a 26.8 percent increase, about three-quarters of the overall percent increase of 38 percent.

Q. DO YOU HAVE ANY OTHER SCHEDULES DEMONSTRATING THE UNBALANCED NATURE OF STAFF'S RATE DESIGN?

A. Yes, attached as Rebuttal Exhibit TJB-RB3. At page 3 of this exhibit is a breakdown of the revenue recovery from the monthly minimums and the commodity rates. Under present rates, approximately 38.8 percent of revenues are derived from the monthly minimums. This is shown on page 1 of the exhibit. However, under Staff's proposed rates, the percentage drops to 29.6 percent. This shift results in more revenue instability as less revenue from the monthly minimums exposes the Company to less revenues when water sales are affected by conservation

In contrast, as shown on page 2 of the exhibit, the Company's proposed rate design derives approximately 33.8 percent revenue recovery from the monthly minimums. I should note that based upon my experience, Staff typically recommends revenue recovery between 30 and 40 percent of the monthly minimums. In my view, it should be closer to 40 percent and preferably between 40 percent and 50 percent. So, Pima's current rate design is already riskier than most that I have seen. Shifting revenue recovery further away from the monthly minimums will only increase revenue instability and the Commission should not go too far in light of this.

Finally, from a cost of service standpoint, the Staff rates provide more subsidization than does the Company's. I will discuss the results of my cost of service (Rebuttal G schedules) updates and associated exhibits a bit later. For now, the unbalanced subsidization occurring under Staff's rate design is another reason Staff's rate design should not be adopted.

Q. ANY OTHER CONCERNS ABOUT THE STAFF PROPOSED RATES?

A. Yes, Staff recommends a monthly minimum for the irrigation customer class that is different than the monthly minimum for effluent sales for the wastewater division, while at the same time recommending the same commodity rates for irrigation water (recovered effluent) for the water division and effluent water for the wastewater division. The Company recommends that both the monthly minimums and the commodity rates be the same, as this design is a reflection of the integrated nature of the water and wastewater operations with respect to irrigation water.[55]

Q. IN REBUTTAL EXHIBIT TJB-RB1, STAFF'S RATES PRODUCE ABOUT $137,000 MORE REVENUE THAN IS REQUIRED FOR STAFF'S REVENUE REQUIREMENT. PLEASE COMMENT.

A. Yes, that's true. You will find the approximately $137,000 on line 31. It appears as a reconciling amount to balance to the Staff proposed revenue requirement. I have contacted Staff to try to resolve this issue.

Q. DOES THIS ERROR IMPACT YOUR COMMENTS REGARDING STAFF'S RATE DESIGN?

A. No.

[55] Bourassa Dt. at 22; Soriano Dt. at 4.

3. Comments on RUCO Rate Design

Q. THANK YOU, CAN YOU PLEASE COMMENT ON RUCO'S RATE DESIGN?

A. RUCO is proposing an inverted three tier design for the 5/8 inch metered residential, and an inverted two tier design for the 3/4 inch and larger metered customers.[56] RUCO's break-over points are the same under present rates and the same as proposed by the Company.

Like the Company's rate design, RUCO's rate design spreads the rate increase more evenly than Staff's rate design, and while RUCO's rate design does shift revenue from the monthly minimums, it is less of a shift than Staff's rate design and is closer to the Company's rate design.

Q. HAVE YOU PREPARED A SCHEDULE TO SHOW THIS?

A. Yes, included as Rebuttal Exhibit TJB-RB4 is a schedule similar to the Company's H-1 which shows the revenues recovered from each customer class under present rates and RUCO's proposed rates. As shown, the percentage of revenues recovered from the 5/8x3/4 inch metered residential customers under RUCO's proposed rates is about 62 percent. Compare this to the 62.7 percent recovered from the 5/8x3/4 inch metered residential customers under the Company's proposed rates.

Q. HAVE YOU PREPARED A SCHEDULE TO ILLUSTRATE THE AVERAGE INCREASE BY CUSTOMER CLASS UNDER RUCO'S PROPOSED RATES?

A. Yes. Rebuttal Exhibit TJB-RB5 is similar to the H-2 schedule contained in the Company's rebuttal filing. The H-2 shows the average bill at present and proposed rates. RUCO is recommending a revenue increase of about 29 percent. As shown on the schedule, RUCO is providing a 19.6 percent increase on the average

[56] *See* RUCO Schedule RBM-RD2.

5/8 inch residential metered customers; about two-thirds of RUCO's recommend overall increase of 29 percent.

Q. WHAT CONCERNS DO YOU HAVE WITH RUCO'S PROPOSED RATE DESIGN?

A. While RUCO's rate design is more balanced than Staff's rate design, it is too complicated. In my view the complication is unnecessary. Let me explain. RUCO has proposed different monthly minimums for the residential and commercial customers. Further, RUCO has proposed different commodity rates for the residential and commercial customers. This complicates the rate design and it is unnecessary. Complicated rate designs are difficult to explain and for customers to understand. Further, RUCO has not explained the reasons or provided a complete analysis to justify the differences in the monthly minimums and the commodity rates between the residential and commercial classes.

Q. ARE THERE OTHER CONCERNS?

A. Yes. There is clearly a problem with the 3/4 inch meter commercial commodity. RUCO proposes a two-tier inverted block rate for this customer class as does the Company. However, the first tier commodity rate is the first tier commodity rate for the 3/4 inch metered residential customer, and the second tier commodity rate is the second tier commodity rate for 3/4 inch metered residential customer. The 3/4 inch metered residential customers have a three-tier inverted block rate. As is typical, the first tier commodity rate for the 3/4 inch metered commercial customers is the second tier of the 3/4 inch metered residential customers, and the second tier is for the 3/4 inch metered commercial customers is the third tier of the 3/4 inch metered residential customers.

There is also a problem with the 3/4 inch metered residential customers commodity rates. The first tier commodity rate for the 3/4 inch metered residential

customer is less than that of the first tier commodity rate of the 5/8x3/4 inch metered residential customer. The second tier commodity rate is less than the second tier commodity rate of the 5/8x3/4 inch metered residential customer. RUCO proposes the same monthly minimum and same break-over points for both of these customer classes and under the circumstances there is no apparent justification for different commodity rates.

Finally, RUCO recommends a monthly minimum and commodity rate for the irrigation customer class that is different than the monthly minimum and commodity rate for effluent sales for the wastewater division and irrigation water (recovered effluent) for the water division. The Company recommends that both the monthly minimums and the commodity rates be the same as this design is a reflection of the integrated nature of the water and wastewater operations with respect to irrigation water.[57]

4. Miscellaneous Charges – Water Division

Q. ARE THERE ANY DISAGREEMENTS WITH RESPECT TO THE MISCELLANEOUS CHARGES?

A. No.

5. Cost of Service Study – Water Rates

Q. HAVE YOU UPDATED YOUR COST OF SERVICE STUDY?

A. Yes. I have updated my cost of service study to reflect the changes to rate base, revenues and expenses contained in the Company's rebuttal filing. As shown on Rebuttal Schedule G-2, the returns at the rebuttal proposed rates continue to vary substantially between the various meter sizes. While all the returns are positive, the 5/8x3/4 inch customer classes provide returns below the 8.29 percent requested

[57] Bourassa Dt. at 22; Soriano Dt. at 4.

in the instant case at 4.22 percent. The larger sized meters, such as the 1 inch, 2 inch, 3 inch customer classes are providing much higher returns at about 23 percent, 23.6 percent, and 44 percent, respectively. The irrigation class provided for about a 39 percent return. This indicates that the larger meter customer classes as well as the irrigation class continue to subsidize the 5/8 inch and 3/4 inch customer classes under the rebuttal proposed rates. However, consistent with the concept of gradualism, there is improvement in eliminating existing subsidization under the Company's proposed rates.

Q. HAVE YOU PREPARED A SCHEDULE TO SHOW THE RESULTS OF A COST OF SERVICE STUDY USING THE STAFF RECOMMENDATIONS?

A. Yes. Rebuttal Exhibit TJB-RB6 shows the cost of service study results using the Staff recommendations for rate base, revenues and expenses, and proposed rates. This schedule is similar to the G-2 schedule in my cost of service study. Keep in mind I believe the Staff rates produce too much revenue. That said, as shown on the schedule, all of the returns from the various customer size classes are positive. The 5/8x3/4 inch customer classes provide a return of just 0.45 percent, far below the Company's 4.43 percent and well below the 7.80 percent recommended by Staff. The larger sized meters, such as the 1 inch, 2 inch, and 3 inch customer classes are providing much higher returns at about 26 percent, 30 percent, and 61 percent, respectively. The irrigation class provides for a nearly 81 percent return. This demonstrates that the larger meter and irrigation class customer classes subsidize the 5/8 inch and 3/4 inch customer classes to a much greater extent under the Staff proposed rates than does the Company's.

B. Wastewater Division

1. Proposed Rates – Wastewater Division

Q. WHAT ARE THE COMPANY'S REBUTTAL PROPOSED RATES FOR WASTEWATER SERVICE?

A. The Company's proposed rates are:

MONTHLY SERVICE CHARGES	
5/8" x 3/4" meters	$ 25.97
3/4" Meters	$ 40.36
1" Meters	$ 67.78
1 1/2" Meters	$ 134.05
2" Meters	$ 214.02
3" Meter	$ 415.50
4" Meters	$ 649.23
6" Meter	$1,298.45
Effluent Sales	
Monthly minimum	$ 200.00
Gallons in minimum	0
Commodity Rate	$ 0.55

Q. WHAT WILL BE THE AVERAGE 5/8X3/4 INCH RESIDENTIAL CUSTOMER MONTHLY BILL UNDER THE NEW RATES?

A. As shown on Wastewater Schedule H-2, page 1, the monthly bill under proposed rates for a 5/8 inch residential customer is $25.97—a $3.24 increase from the present monthly bill or a 14.25 percent increase.

2. Comments on Staff and RUCO Rate Designs

Q. PLEASE COMMENT ON THE PROPOSED RATE DESIGNS OF STAFF AND RUCO?

A. All of the parties recommend similar flat rate designs for the wastewater division. In addition, all of the parties recommend a monthly minimum for effluent sales and a commodity rate for all gallons.

Q. WHAT ARE THE DIFFERENCES IN DESIGNS BETWEEN THE COMPANY AND RUCO?

A. Let's begin with the Staff rate design. Staff only recommends an increase to the monthly minimums for the 5/8x3/4 inch metered residential customers. The larger meter monthly minimums are the same as under current rates. Since Staff does not explain why this is the case, in my view this is not fair and reasonable. I should also note the Staff rates produce too much revenue on the order of about $28,000. I have contacted Staff about this issue.

On the other hand, RUCO scales the monthly minimums based on the flows of a 5/8x3/4 inch water meter to set the monthly minimums for the various size meter classes.[58] This results in less of an increase to the larger metered classes than the increase on the 5/8x3/4 inch meter class. The Company proposes to increase the monthly minimums by the same percentage so that the increase in revenues is shared more equitably among the classes.

Q. IS IT NECESSARY TO SCALE THE MONTHLY MINIMUMS IN THE INSTANT CASE?

A. No. The monthly minimums already increase as the size of the water meter and the minimums are close to where they would be if scaling the minimums were employed. As a result and for the reason that I believe that the increase in revenues

[58] Coley Dt. at 32.

should be shared more equitably in the instant case, there is no basis to scale the minimums at this time.

Q. DO YOU HAVE ANY COMMENTS OR CONCERNS ON THE RUCO PROPOSED RATES?

A. Yes, I have two comments. First, I believe the RUCO proposed rates produce too little revenue - on the order of approximately $90,000. I have contacted RUCO to investigate the discrepancy. Second, as I mentioned earlier, RUCO recommends a monthly minimum and commodity rate for the irrigation customer class that is different than the monthly minimum and commodity rate for effluent sales for the wastewater division and irrigation water (recovered effluent) for the water division. The Company recommends that both the monthly minimums and the commodity rates be the same as this design is a reflection of the integrated nature of the water and wastewater operations with respect to irrigation water.[59]

3. <u>Miscellaneous Charges – Wastewater Division</u>

Q. ARE THERE ANY DISAGREEMENTS WITH RESPECT TO THE MISCELLANEOUS CHARGES?

A. No.

Q. DOES THAT CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

[59] Bourassa Dt. at 22; Soriano Dt. at 4.

Pima Utility Company

Thomas Bourassa Rebuttal Testimony
(Rate Base)

Exhibit TJB-RB1

Pima Utility Company - Water Division - Staff Rates
Revenue Summary
Test Year Ended December 31, 2010

Exhibit
Schedule H-1

Line No.	Meter Size	Classification	Total Revenues at Present Rates	Total Revenues at Proposed Rates	Dollar Change	Percent Change	Percent of Present Water Revenues	Percent of Proposed Water Revenues
1	5/8x3/4 Inch	Residential	$ 1,274,912	$ 1,447,517	$ 172,605	13.54%	64.47%	58.90%
2	1 Inch	Residential	116,781	146,019	29,238	25.04%	5.91%	5.94%
3								
4	5/8x3/4 Inch	Commercial	$ 25,431	$ 37,415	$ 11,984	47.12%	1.29%	1.52%
5	3/4 Inch	Commercial	1,819	2,717	898	49.36%	0.09%	0.11%
6	1 Inch	Commercial	28,761	38,613	9,852	34.25%	1.45%	1.57%
7	1 1/2 Inch	Commercial	10,567	14,223	3,656	34.59%	0.53%	0.58%
8	2 Inch	Commercial	208,085	301,793	93,707	45.03%	10.52%	12.28%
9								
10	Irrigation		310,134	597,738	287,604	92.74%	15.68%	24.32%
11	Irrigation - recovered effluent		7,324	7,324	-	0.00%	0.37%	0.30%
12								
13	**Subtotals of Revenues**		$ 1,983,814	$ 2,593,359	$ 609,544	30.73%	100.31%	105.53%
14	**Revenue Annualizations:**							
15	5/8x3/4 Inch	Residential	$ (464)	$ (494)	$ (29)	6.30%	-0.02%	-0.02%
16	1 Inch	Residential	1,345	1,612	267	19.82%	0.07%	0.07%
17								
18	5/8x3/4 Inch	Commercial	$ (343)	$ (490)	$ (147)	42.74%	-0.02%	-0.02%
19	3/4 Inch	Commercial	-	-	-	0.00%	0.00%	0.00%
20	1 Inch	Commercial	390	511	121	31.13%	0.02%	0.02%
21	1 1/2 Inch	Commercial	(127)	(155)	(28)	22.45%	-0.01%	-0.01%
22	2 Inch	Commercial	381	453	72	19.03%	0.02%	0.02%
23								
24	Irrigation - recovered effluent		(7,324)	(7,324)	-	0.00%	-0.37%	-0.30%
25	(belongs to Wastewater Division)							
26								
27	**Subtotal Revenue Annualization**		(6,142)	(5,886)	256	-4.17%	-0.31%	-0.30%
28								
29	**Total Revenues w/ Annualization**		$ 1,977,673	$ 2,587,473	$ 609,800	30.83%	100.00%	105.29%
30	**Misc Revenues**		7,261	7,261	-	0.00%	0.37%	0.30%
31	**Reconciling Amount**		(7,306)	(137,175)	(129,869)	1777.57%	-0.37%	-5.58%
32	**Total Revenues**		$ 1,977,628	$ 2,457,559	$ 479,931	24.27%	100.00%	100.00%
33								
34								

Pima Utility Company

Thomas Bourassa Rebuttal Testimony
(Rate Base)

Exhibit TJB-RB2

Pima Utility Company - Water Division - Staff Rates
Analysis of Revenue by Detailed Class
Test Year Ended December 31, 2010

Exhibit
Schedule H-2

Line No.	Customer Classification and/or Meter Size		(a) Average Number of Customers at 12/31/2010	Average Consumption	Average Bill Present Rates	Average Bill Proposed Rates	Proposed Increase Dollar Amount	Proposed Increase Percent Amount	Percent of Customers
1	5/8x3/4 Inch	Residential	9,747	6,395	$ 10.66	$ 11.44	$ 0.77	7.26%	95.87%
2	1 Inch	Residential	220	28,258	44.00	52.48	8.48	19.28%	2.17%
3									
4	5/8x3/4 Inch	Commercial	63	27,442	$ 32.82	47.11	14.30	43.56%	0.62%
5	3/4 Inch	Commercial	4	31,484	37.18	54.06	16.88	45.39%	0.04%
6	1 Inch	Commercial	46	35,570	51.90	65.05	13.15	25.35%	0.45%
7	1 1/2 Inch	Commercial	11	55,541	78.46	101.50	23.03	29.36%	0.11%
8	2 Inch	Commercial	72	51,537	79.14	96.74	17.60	22.23%	0.71%
9									
10	Irrigation		4	15,854,381	$ 5,851.58	$ 11,278.07	$ 5,426.49	92.74%	0.04%
11									
12									
13									
14									
15									
16									
17									
18	Totals		10,167						100.00%
19									
20	Actual Year End Number								
21	of Customers:		10,188						
22									
23									
24									
25									

Pima Utility Company

Thomas Bourassa Rebuttal Testimony
(Rate Base)

Exhibit TJB-RB3

Pima Utility Company - Water Division
Revenue Breakdown Summary
Present Rates

		Present Monthly Mins	Commodity First Tier	Commodity Second Tier	Commodity Third Tier	Total
5/8x3/4 Inch	Residential	$ 666,421	$ 468,773	$ 139,254	$ -	$ 1,274,448
3/4 Inch	Residential	$ -	$ -	$ -	$ -	$ -
1 Inch	Residential	$ 42,816	$ 19,994	$ 55,316	$ -	$ 118,126
Subtotal		$ 709,237	$ 488,767	$ 194,570	$ -	$ 1,392,574
		36.00%	24.81%	9.87%	0.00%	70.68%
5/8x3/4 Inch	Commercial	$ 4,241	$ 3,355	$ 17,492	$ -	$ 25,088
3/4 Inch	Commercial	$ 274	$ 203	$ 1,343	$ -	$ 1,819
1 Inch	Commercial	$ 8,832	$ 2,703	$ 17,616	$ -	$ 29,151
1 1/2 Inch	Commercial	$ 2,772	$ 866	$ 6,803	$ -	$ 10,440
2 Inch	Commercial	$ 30,264	$ 8,165	$ 170,037	$ -	$ 208,466
Subtotal		$ 46,382	$ 15,292	$ 213,291	$ -	$ 274,965
		2.35%	0.78%	10.83%	0.00%	13.96%
Irrigation		$ 9,540	$ 300,594	$ -	$ -	$ 310,134
Irrigation recovered effluent		$ -	$ (7,324)	$ -	$ -	$ (7,324)
	TOTALS	$ 765,160	$ 797,328	$ 407,861	$ -	$ 1,970,349
	Percent of Total	38.83%	40.47%	20.70%	0.00%	100.00%
	Cummulative %	38.83%	79.30%	100.00%	100.00%	

Pima Utility Company - Water Division
Revenue Breakdown Summary
Company Proposed Rates

		Present Monthly Mins	Commodity First Tier	Commodity Second Tier	Commodity Third Tier	Total
5/8x3/4 Inch	Residential	$ 789,043	$ 350,254	$ 308,594	$ 216,387	$ 1,664,278
3/4 Inch	Residential	$ -	$ -	$ -	$ -	$ -
1 Inch	Residential	$ 50,694	$ 62,265	$ 45,058	$ -	$ 158,018
Subtotal		$ 839,737	$ 412,519	$ 353,652	$ 216,387	$ 1,822,295
		31.38%	15.41%	13.21%	8.09%	68.09%
5/8x3/4 Inch	Commercial	$ 5,021	$ 5,416	$ 27,181	$ -	$ 37,618
3/4 Inch	Commercial	$ 324	$ 343	$ 2,086	$ -	$ 2,753
1 Inch	Commercial	$ 10,457	$ 9,137	$ 21,077	$ -	$ 40,671
1 1/2 Inch	Commercial	$ 3,282	$ 4,844	$ 5,991	$ -	$ 14,117
2 Inch	Commercial	$ 35,833	$ 74,757	$ 182,842	$ -	$ 293,431
Subtotal		$ 54,917	$ 94,496	$ 239,177	$ -	$ 388,589
		2.05%	3.53%	8.94%	0.00%	14.52%
Irrigation		$ 10,600	$ 462,155	$ -	$ -	$ 472,755
Irrigation recovered effluent		$ -	$ (7,324)	$ -	$ -	$ (7,324)
	TOTALS	$ 905,254	$ 961,846	$ 592,829	$ 216,387	$ 2,676,316
	Percent of Total	33.82%	35.94%	22.15%	8.09%	100.00%
	Cummulative %	33.82%	69.76%	91.91%	100.00%	

Pima Utility Company - Water Division - Staff Rates
Revenue Breakdown Summary
Proposed Rates

		Present Monthly Mins	Commodity First Tier	Commodity Second Tier	Commodity Third Tier	Total
5/8x3/4 Inch	Residential	$ 666,421	$ 283,007	$ 275,950	$ 221,646	$ 1,447,024
3/4 Inch	Residential	$ -	$ -	$ -	$ -	$ -
1 Inch	Residential	$ 42,816	$ 49,758	$ 55,057	$ -	$ 147,631
Subtotal		$ 709,237	$ 332,765	$ 331,007	$ 221,646	$ 1,594,655
		27.49%	12.90%	12.83%	8.59%	61.80%
5/8x3/4 Inch	Commercial	$ 4,241	$ 4,843	$ 27,841	$ -	$ 36,925
3/4 Inch	Commercial	$ 274	$ 306	$ 2,137	$ -	$ 2,717
1 Inch	Commercial	$ 8,832	$ 7,112	$ 23,180	$ -	$ 39,124
1 1/2 Inch	Commercial	$ 2,772	$ 2,689	$ 8,607	$ -	$ 14,068
2 Inch	Commercial	$ 30,264	$ 31,431	$ 240,551	$ -	$ 302,246
Subtotal		$ 46,382	$ 46,382	$ 302,316	$ -	$ 395,080
		1.80%	1.80%	11.72%	0.00%	15.31%
Irrigation		$ 9,540	$ 588,198	$ -	$ -	$ 597,738
Irrigation recovered effluent		$ -	$ (7,324)	$ -	$ -	$ (7,324)
	TOTALS	$ 765,160	$ 960,021	$ 633,323	$ 221,646	$ 2,580,149
	Percent of Total	29.66%	37.21%	24.55%	8.59%	100.00%
	Cummulative %	29.66%	66.86%	91.41%	100.00%	

Pima Utility Company - Water Division - RUCO Rates
Revenue Breakdown Summary
Proposed Rates

		Present Monthly Mins	Commodity First Tier	Commodity Second Tier	Commodity Third Tier	Total
5/8x3/4 Inch	Residential	$ 721,372	$ 343,382	$ 296,954	$ 215,328	$ 1,577,035
3/4 Inch	Residential	$ -	$ -	$ -	$ -	$ -
1 Inch	Residential	$ 46,750	$ 60,891	$ 44,838	$ -	$ 152,478
Subtotal		$ 768,121	$ 404,272	$ 341,792	$ 215,328	$ 1,729,513
		30.39%	15.99%	13.52%	8.52%	68.42%
5/8x3/4 Inch	Commercial	$ 4,643	$ 5,169	$ 26,724	$ -	$ 36,536
3/4 Inch	Commercial	$ 300	$ 239	$ 1,517	$ -	$ 2,055
1 Inch	Commercial	$ 9,671	$ 8,720	$ 20,723	$ -	$ 39,114
1 1/2 Inch	Commercial	$ 3,035	$ 4,623	$ 5,890	$ -	$ 13,548
2 Inch	Commercial	$ 33,139	$ 71,352	$ 179,768	$ -	$ 284,259
Subtotal		$ 50,787	$ 90,104	$ 234,621	$ -	$ 375,512
		2.01%	3.56%	9.28%	0.00%	14.85%
Irrigation		$ 10,070	$ 420,141	$ -	$ -	$ 430,211
Irrigation recovered effluent		$ -	$ (7,324)	$ -	$ -	$ (7,324)
	TOTALS	$ 828,978	$ 907,193	$ 576,413	$ 215,328	$ 2,527,912
	Percent of Total	32.79%	35.89%	22.80%	8.52%	100.00%
	Cummulative %	32.79%	68.68%	91.48%	100.00%	

Pima Utility Company

Thomas Bourassa Rebuttal Testimony
(Rate Base)

Exhibit TJB-RB4

Pima Utility Company - Water Division - RUCO Rates
Revenue Summary
Test Year Ended December 31, 2010

Exhibit
Schedule H-1

Line No.	Meter Size	Classification	Total Revenues at Present Rates	Total Revenues at Proposed Rates	Dollar Change	Percent Change	Percent of Present Water Revenues	Percent of Proposed Water Revenues
1	5/8x3/4 Inch	Residential	$ 1,274,912	$ 1,577,587	$ 302,675	23.74%	64.47%	62.02%
2	1 Inch	Residential	116,781	150,796	34,015	29.13%	5.91%	5.93%
3								
4	5/8x3/4 Inch	Commercial	$ 25,431	$ 37,028	$ 11,597	45.60%	1.29%	1.46%
5	3/4 Inch	Commercial	1,819	2,055	236	12.95%	0.09%	0.08%
6	1 Inch	Commercial	28,761	38,609	9,848	34.24%	1.45%	1.52%
7	1 1/2 Inch	Commercial	10,567	13,699	3,132	29.63%	0.53%	0.54%
8	2 Inch	Commercial	208,085	283,819	75,733	36.40%	10.52%	11.16%
9								
10	Irrigation		310,134	430,211	120,078	38.72%	15.68%	16.91%
11	Irrigation - recovered effluent		7,324	7,324	-	0.00%	0.37%	0.29%
12								
13	**Subtotals of Revenues**		$ 1,983,814	$ 2,541,127	$ 557,313	28.09%	100.31%	99.90%
14	**Revenue Annualizations:**							
15	5/8x3/4 Inch	Residential	$ (464)	$ (552)	$ (87)	18.83%	-0.02%	-0.02%
16	1 Inch	Residential	1,345	1,682	337	25.04%	0.07%	0.07%
17								
18	5/8x3/4 Inch	Commercial	$ (343)	$ (492)	$ (149)	43.42%	-0.02%	-0.02%
19	3/4 Inch	Commercial	-	-	-	0.00%	0.00%	0.00%
20	1 Inch	Commercial	390	505	115	29.60%	0.02%	0.02%
21	1 1/2 Inch	Commercial	(127)	(151)	(24)	18.87%	-0.01%	-0.01%
22	2 Inch	Commercial	381	440	59	15.52%	0.02%	0.02%
23								
24	Irrigation - recovered effluent		(7,324)	(7,324)	-	0.00%	-0.37%	-0.29%
25	(belongs to Wastewater Division)							
26								
27	**Subtotal Revenue Annualization**		(6,142)	(5,891)	251	-4.09%	-0.31%	-0.30%
28								
29	**Total Revenues w/ Annualization**		$ 1,977,673	$ 2,535,236	$ 557,564	28.19%	100.00%	99.67%
30	**Misc Revenues**		7,261	7,261	-	0.00%	0.37%	0.29%
31	**Reconciling Amount**		(7,306)	1,177	8,483	-116.11%	-0.37%	0.05%
32	**Total Revenues**		$ 1,977,628	$ 2,543,675	$ 566,047	28.62%	100.00%	100.00%
33								
34								

Pima Utility Company

Thomas Bourassa Rebuttal Testimony
(Rate Base)

Exhibit TJB-RB5

Pima Utility Company - Water Division - RUCO Rates
Analysis of Revenue by Detailed Class
Test Year Ended December 31, 2010

Exhibit
Schedule H-2

Line No.	Customer Classification and/or Meter Size		(a) Average Number of Customers at 12/31/2010	Average Consumption	Average Bill Present Rates	Average Bill Proposed Rates	Proposed Increase Dollar Amount	Proposed Increase Percent Amount	Percent of Customers
1	5/8x3/4 Inch	Residential	9,747	6,395	$ 10.66	$ 12.76	$ 2.09	19.62%	95.87%
2	1 Inch	Residential	220	28,258	44.00	54.16	10.16	23.10%	2.17%
3									
4	5/8x3/4 Inch	Commercial	63	27,442	$ 32.82	47.22	14.40	43.89%	0.62%
5	3/4 Inch	Commercial	4	31,484	37.18	41.35	4.17	11.21%	0.04%
6	1 Inch	Commercial	46	35,570	51.90	65.46	13.56	26.14%	0.45%
7	1 1/2 Inch	Commercial	11	55,541	78.46	93.13	14.67	18.69%	0.11%
8	2 Inch	Commercial	72	51,537	79.14	91.34	12.21	15.42%	0.71%
9									
10	Irrigation		4	15,854,381	$ 5,851.58	$ 8,117.19	$ 2,265.61	38.72%	0.04%
11									
12									
13									
14									
15									
16									
17									
18	Totals		10,167						100.00%
19									
20	Actual Year End Number								
21	of Customers:		10,188						
22									
23									
24									
25									

Pima Utility Company

Thomas Bourassa Rebuttal Testimony
(Rate Base)

Exhibit TJB-RB6

Pima Utility Company - Water Division - Staff Proposed Rates
Test Year Ended December 31, 2010
Cost of Service Study, Using Commodity Demand Method
Operating Margins at Proposed Rates

Exhibit
Schedule G-2
Page 1

Line No.	Meter Size->	Totals	Meter Size 5/8" x 3/4"	3/4"	1"	1 1/2"	2"	Irrigation
1	Water Revenues	$ 2,593,359	$ 1,484,932	$ 2,717	$ 184,632	$ 14,223	$ 301,793	$ 605,061
2	Revenue Annualizations	(5,886)	(983)	-	2,123	(155)	453	(7,324)
3	Misc. Revenues[1]	7,261	6,988	3	190	8	69	3
4	Reconcilation H-1 to C-1[1]	(137,715)	(132,538)	(54)	(3,609)	(149)	(1,311)	(54)
5	Total Revenues	$ 2,457,019	$ 1,358,399	$ 2,666	$ 183,337	$ 13,927	$ 301,004	$ 597,686
6								
7	Operating Expenses[2]	$ 969,804	$ 703,352	$ 592	$ 45,095	$ 3,301	$ 32,355	$ 185,110
8	Depreciation and							
9	Amortization[2]	688,387	571,246	355	32,129	2,360	34,757	47,540
10	Property Tax[3]	87,799	48,541	95	6,551	498	10,756	21,358
11	Income Tax[4]	-	-	-	-	-	-	-
12	Total Operating Expenses	$ 1,745,990	$ 1,323,138	$ 1,042	$ 83,775	$ 6,159	$ 77,868	$ 254,008
13	Operating Income	$ 711,029	$ 35,261	$ 1,624	$ 99,562	$ 7,768	$ 223,136	$ 343,679
14	Interest Expense[5]	137,090	118,993	65	5,704	389	5,537	6,402
15	Net Income	$ 573,939	$ (83,732)	$ 1,559	$ 93,857	$ 7,378	$ 217,600	$ 337,277
16	Rate Base[6]	$ 9,122,677	$ 7,918,397	$ 4,332	$ 379,599	$ 25,902	$ 368,437	$ 426,010
17	Return on Rate Base[7]	7.79%	0.45%	37.48%	26.23%	29.99%	60.56%	80.67%
18								
19	**Percent of Total Customers**		96.241%	0.039%	2.621%	0.108%	0.952%	0.039%
20								
21								

22 [1] Allocated based on customer counts.
23 [2] Operating Expenses and Depreciation computations are shown on Schedule G-4, Page 1.
24 [3] Property Taxes allocation based on Revenues
25 [4] Income Tax from Schedule C-1, at Proposed Rates. Income Taxes allocated based on taxable income
26 [5] Interest Synchronized Interest Expense. Allocation based on Rate Base
27 [6] Rate Base computations are shown on Schedule G-3, Page 1
28 [7] Operating Income Divided by Rate Base
29

Pima Utility Company

Water Division Schedules

Schedules A through C, G, and H

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Computation of Increase in Gross Revenue
Requirements As Adjusted

Exhibit
Rebuttal Schedule A-1
Page 1
Witness: Bourassa

Line No.			
1	Fair Value Rate Base	$	9,073,324
2			
3	Adjusted Operating Income		241,792
4			
5	Current Rate of Return		2.66%
6			
7	Required Operating Income	$	752,179
8			
9	Required Rate of Return on Fair Value Rate Base		8.29%
10			
11	Operating Income Deficiency	$	510,386
12			
13	Gross Revenue Conversion Factor		1.3979
14			
15	Increase in Gross Revenue		
16	Requirement	$	713,480
17			
18	Adjusted Test Year Revenues	$	1,977,627
19	Increase in Gross Revenue Revenue Requirement	$	713,480
20	Proposed Revenue Requirement	$	2,691,108
21	% Increase		36.08%

	Customer Classification (Residential Commercial, Irrigation)		**Present Rates**	**Proposed Rates**	**Dollar Increase**	**Percent Increase**
26	5/8x3/4 Inch	Residential	$ 1,274,912	$ 1,664,864	$ 389,952	30.59%
27	1 Inch	Residential	116,781	156,268	39,486	33.81%
28						
29	5/8x3/4 Inch	Commercial	25,431	38,127	12,696	49.92%
30	3/4 Inch	Commercial	1,819	2,753	934	51.33%
31	1 Inch	Commercial	28,761	40,144	11,383	39.58%
32	1 1/2 Inch	Commercial	10,567	14,276	3,709	35.10%
33	2 Inch	Commercial	208,085	292,965	84,880	40.79%
34						
35	Irrigation		317,458	480,079	162,622	51.23%
36						
37	Revenue Annualization		(6,142)	(5,835)	307	-5.00%
38						
39	**Subtotal**		$ 1,977,673	$ 2,683,640	$ 705,967	35.70%
40						
41	Other Water Revenues		7,261	7,261	-	0.00%
42	Reconciling Amount		(7,306)	207	7,513	-102.83%
43	Rounding				-	0.00%
44	**Total of Water Revenues**		$ 1,977,628	$ 2,691,108	$ 713,480	36.08%

45
46
47 SUPPORTING SCHEDULES:
48 B-1
49 C-1
50 C-3
51 H-1

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Summary of Rate Base

Exhibit
Rebuttal Schedule B-1
Page 1
Witness: Bourassa

Line No.		Original Cost Rate base	Fair Value Rate Base
1			
2	Gross Utility Plant in Service	$ 14,571,659	$ 14,571,659
3	Less: Accumulated Depreciation	4,788,552	4,788,552
4			
5	Net Utility Plant in Service	$ 9,783,107	$ 9,783,107
6			
7	Less:		
8	Advances in Aid of Construction	(0)	(0)
9			
10	Contributions in Aid of Construction	1,056,007	1,056,007
11			
12	Accumulated Amortization of CIAC	(346,223)	(346,223)
13			
14	Customer Meter Deposits	-	-
15	Deferred Income Taxes & Credits	-	-
16			
17			
18			
19	Plus:		
20	Unamortized Finance		
21	Charges	-	-
22	Deferred Tax Assets	-	-
23	Allowance for Working Capital	-	-
24			
25			
26	Total Rate Base	$ 9,073,324	$ 9,073,324
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41	SUPPORTING SCHEDULES:		
42	B-2		
43	B-3		
44	B-5		
45	E-1		
46			
47			
48			
49			
50			

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Original Cost Rate Base Proforma Adjustments

Exhibit
Rebuttal Schedule B-2
Page 1
Witness: Bourassa

Line No.		Actual at End of Test Year	Proforma Adjustment	Adjusted at end of Test Year
1	Gross Utility			
2	Plant in Service	$ 14,546,128	25,531	$ 14,571,659
3				
4	**Less:**			
5	Accumulated			
6	Depreciation	4,788,169	383	4,788,552
7				
8				
9	Net Utility Plant			
10	in Service	$ 9,757,959		$ 9,783,107
11				
12	**Less:**			
13	Advances in Aid of			
14	Construction	374,236	(374,236)	(0)
15				
16	Contributions in Aid of			
17	Construction - Gross	632,418	423,589	1,056,007
18				
19	Accumulated Amortization of CIAC	(346,223)	-	(346,223)
20				
21	Customer Meter Deposits	-		-
22	Accumulated Deferred Income Tax	-	-	-
23				-
24				-
25				
26	**Plus:**			
27	Unamortized Finance			
28	Charges	-		-
29	Prepayments	-		-
30	Materials and Supplies	-		-
31	Working capital	-	-	-
32				-
33				
34	Total	$ 9,097,529		$ 9,073,324
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45	SUPPORTING SCHEDULES:			RECAP SCHEDULES:
46	B-2, pages 2			B-1
47	E-1			
48				
49				
50				

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Original Cost Rate Base Proforma Adjustments

Exhibit
Rebuttal Schedule B-2
Page 2
Witness: Bourassa

Line No.		Actual at End of Test Year	Proforma Adjustments 1 Plant-in-Service	2 Accumulated Depreciation	3 AIAC/ CIAC	4 Intentionally Left Blank	5 Intentionally Left Blank	Adjusted at end of Test Year
1	Gross Utility							
2	Plant in Service	$ 14,546,128	25,531					$ 14,571,659
3								
4	**Less:**							
5	Accumulated							
6	Depreciation	4,788,169		383				4,788,552
7								
8								
9	Net Utility Plant							
10	in Service	$ 9,757,959	$ 25,531	$ (383)	$ -	$ -	$ -	$ 9,783,107
11								
12	**Less:**							
13	Advances in Aid of							
14	Construction	374,236			(374,236)			(0)
15								
16	Contributions in Aid of							
17	Construction (CIAC)	632,418			423,589			1,056,007
18								
19	Accumulated Amort of CIAC	(346,223)			-			(346,223)
20								
21	Customer Meter Deposits	-						-
22	Accumulated Deferred Income Taxes	-			-			-
23								
24								
25	**Plus:**							
26	Unamortized Finance							
27	Charges	-						-
28	Prepayments							
29	Materials and Supplies							
30	Allowance for Cash Working Capital	-						-
31								
32	Total	$ 9,097,529	$ 25,531	$ (383)	$ (49,353)	$ -	$ -	$ 9,073,324
33								
34								
35								
36	SUPPORTING SCHEDULES:						RECAP SCHEDULES:	
37	B-2, pages 3-5						B-1	
38	E-1							
39								
40								

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Original Cost Rate Base Proforma Adjustments
Adjustment Number 1

Exhibit
Rebuttal Schedule B-2
Page 3
Witness: Bourassa

Plant-in-Service

Line No.	Acct. No.	Description	Direct Adjusted Orginal Cost	A Capitalized Expenses	B Intentionally Left Blank	C Intentionally Left Blank	D Intentionally Left Blank	E Intentionally Left Blank	Rebuttal Adjusted Original Cost
				Adjustments					
6	301	Organization Cost	-						-
7	302	Franchise Cost	-						-
8	303	Land and Land Rights	97,637						97,637
9	304	Structures and Improvements	315,125						315,125
10	305	Collecting and Impounding Res.	-						-
11	306	Lake River and Other Intakes	-						-
12	307	Wells and Springs	606,699	3,902					610,601
13	308	Infiltration Galleries and Tunnels	-						-
14	309	Supply Mains	-						-
15	310	Power Generation Equipment	-						-
16	311	Electric Pumping Equipment	2,263,801	5,937					2,269,738
17	320	Water Treatment Equipment	-						-
18	320.1	Water Treatment Plant	-						-
19	320.2	Chemical Solution Feeders	58,255						58,255
20	330	Dist. Reservoirs & Standpipe	-						-
21	330.1	Storage tanks	1,102,197						1,102,197
22	330.2	Pressure Tanks	73,937						73,937
23	331	Trans. and Dist. Mains	2,916,048						2,916,048
24	333	Services	4,709,148	15,692					4,724,840
25	334	Meters	923,202						923,202
26	335	Hydrants	887,381						887,381
27	336	Backflow Prevention Devices	-						-
28	339	Other Plant and Misc. Equip.	-						-
29	340	Office Furniture and Fixtures	4,239						4,239
30	340.1	Computers and Software	28,479						28,479
31	341	Transportation Equipment	61,635						61,635
32	342	Stores Equipment	-						-
33	343	Tools and Work Equipment	134,506						134,506
34	344	Laboratory Equipment	-						-
35	345	Power Operated Equipment	124,899						124,899
36	346	Communications Equipment	238,939						238,939
37	347	Miscellaneous Equipment	-						-
38	348	Other Tangible Plant	-						-
39			-						-
40		TOTALS	$ 14,546,128	$ 25,531	$ -	$ -	$ -	$ -	$ 14,571,659
41									
42		Plant-in-Service per Direct							$ 14,546,128
43									
44		Increase (decrease) in Plant-in-Service							$ 25,531
45									
46		Adjustment to Plant-in-Service							$ 25,531
47									
48		SUPPORTING SCHEDULES							
49		B-2, pages 3.1							
50		B-2, pages 3.2-3.19							

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
B-2 Adjustment 1 - A
Capitalized Expenses

Exhibit
Rebuttal Schedule B-2
Page 3.1
Witness: Bourassa

Line No.	Plant Acct	Description		Amount
1	307	Wells and Springs	$	3,902
2	311	Electric Pumping Equipment		5,937
3	333	Services		15,692
4				
5		Total	$	25,531
6				
7				
8	Increase in Plant-in-Service		$	25,531
9				
10				
11				
12				
13				
14				
15				
16	Reference/Supporting Schedule			
17	Staff Rate Base Adjustment No. 1, Schedule CSB-4			
18				
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Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.2
Witness: Jones/Bourassa

				Per Decision No. 58743 (1993 Account Numbers)				Current Books		Conform to Decision No. 58743		
Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	Company Plant at 12/31/1992	Order Adopted Adjustments	Order Plant at 12/31/1992	Accum. Deprec. At 12/31/1992	G/L Plant at 12/31/1992	NARUC Plant at 12/31/1992	Correction to Plant Balance	Corrected Plant at 12/31/1992	Accum. Deprec. At 12/31/1992
1	301	Organization Cost	0.00%			-		-	-		-	-
2	302	Franchise Cost	0.00%			-		-	-		-	-
3	303	Land and Land Rights	0.00%	92,551		92,551		92,551	92,551		92,551	-
4	304	Structures & Improvements	3.00%	63,366		63,366		63,366	63,366		63,366	27,823
5	305	Collecting & Impounding Reservoirs	3.00%			-		-	-		-	-
6	306	Lake, River, Canal Intakes	3.00%			-		-	-		-	-
7	307	Wells & Springs	3.00%	153,447		153,447		153,447	153,447		153,447	67,375
8	308	Infiltration Galleries	3.00%			-		-	-		-	-
9	309	Raw Water Supply Mains	3.00%			-		-	-		-	-
10	310	Power Generation Equipment	3.00%			-		-	-		-	-
11	311	Pumping Equipment	3.00%	111,953		111,953		116,953	204,563		204,563	89,819
12	320	Water Treatment Equipment	3.00%			-		-	-		-	-
13	320.1	Water Treatment Plants	3.00%			-		-	-		-	-
14	320.2	Solution Chemical Feeders	3.00%			-		-	19,839		19,839	8,711
15	330	Distribution Reservoirs & Standpipes	3.00%	300,045	13,200	313,245		310,605	-		-	-
16	330.1	Storage Tanks	3.00%			-		-	215,634		215,634	94,681
17	330.2	Pressure Tanks	3.00%			-		-	10,000		10,000	4,391
18	331	Transmission & Distribution Mains	3.00%	1,080,106	2,640	1,082,746		1,082,746	1,100,025		1,100,025	482,998
19	333	Services	3.00%	521,965	5,280	527,245		521,965	527,245		527,245	231,502
20	334	Meters	3.00%	162,498		162,498		167,778	162,498		162,498	71,350
21	335	Hydrants	3.00%	425,810	2,640	428,450		428,450	428,450		428,450	188,123
22	336	Backflow Prevention Devices	3.00%			-		-	-		-	-
23	339	Other Plant & Misc Equipment	3.00%			-		-	-		-	-
24	340	Office Furniture & Equipment	3.00%		2,640	2,640		84,981	2,640		2,640	1,159
25	340.1	Computers & Software	3.00%			-		-	-		-	-
26	341	Transportation Equipment	3.00%	34,947		34,947		-	14,826		14,826	6,510
27	342	Stores Equipment	3.00%			-		-	-		-	-
28	343	Tools, Shop & Garage Equipment	3.00%	64,874		64,874		-	26,196	15,121	41,317	18,141
29	344	Laboratory Equipment	3.00%			-		-	-		-	-
30	345	Power Operated Equipment	3.00%			-		-	-		-	-
31	346	Communication Equipment	3.00%			-		-	1,561		1,561	686
32	347	Miscellaneous Equipment	3.00%			-		-	-		-	-
33	348	Other Tangible Plant	3.00%			-		-	-		-	-
34		Const. Work in Progress		147,000	(147,000)	-						
35												
36		TOTALS		3,158,562	(120,600)	3,037,962	1,293,269	3,022,841	3,022,841	15,121	3,037,962	1,293,269

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.3
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	1993 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	92,551	-
4	304	Structures & Improvements	3.00%	-	-	-	-	-	-	-	1,901	63,366	29,724
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	-	-	-	-	-	-	-	4,603	153,447	71,978
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	-	-	-	-	-	-	-	6,137	204,563	95,956
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	-	-	-	-	-	-	-	595	19,839	9,306
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	-	-	-	-	-	-	-	6,469	215,634	101,150
17	330.2	Pressure Tanks	3.00%	-	-	-	-	-	-	-	300	10,000	4,691
18	331	Transmission & Distribution Mains	3.00%	-	-	-	-	-	-	-	33,001	1,100,025	515,999
19	333	Services	3.00%	-	-	-	-	-	-	-	15,817	527,245	247,319
20	334	Meters	3.00%	8,444	-	8,444	-	-	-	-	5,002	170,942	76,352
21	335	Hydrants	3.00%	-	-	-	-	-	-	-	12,853	428,450	200,976
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	-	-	-	-	-	-	-	79	2,640	1,238
25	340.1	Computers & Software	3.00%	-	-	-	-	-	-	-	-	-	-
26	341	Transportation Equipment	3.00%	9,759	-	9,759	-	-	-	-	591	24,585	7,101
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	-	-	-	-	7,700	7,700	-	1,124	33,617	11,565
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
31	346	Communication Equipment	3.00%	-	-	-	-	-	-	-	47	1,561	733
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		18,202	-	18,202	-	7,700	7,700	-	88,520	3,048,464	1,374,089

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.4
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	1994 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	92,551	-
4	304	Structures & Improvements	3.00%	-	-	-	-	-	-	-	1,901	63,366	31,625
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	-	-	-	-	-	-	-	4,603	153,447	76,582
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	68,234	(10,847)	57,388	-	5,672	5,672	-	6,913	256,278	97,197
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	-	-	-	-	3,439	3,439	-	544	16,400	6,411
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	-	-	-	-	-	-	-	6,469	215,634	107,619
17	330.2	Pressure Tanks	3.00%	-	-	-	-	-	-	-	300	10,000	4,991
18	331	Transmission & Distribution Mains	3.00%	96,895	-	96,895	-	-	-	-	34,454	1,196,920	550,453
19	333	Services	3.00%	-	-	-	-	-	-	-	15,817	527,245	263,137
20	334	Meters	3.00%	39,118	-	39,118	-	-	-	-	5,715	210,060	82,067
21	335	Hydrants	3.00%	14,400	-	14,400	-	-	-	-	13,069	442,850	214,046
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	-	-	-	-	-	-	-	79	2,640	1,317
25	340.1	Computers & Software	3.00%	-	-	-	-	-	-	-	-	-	-
26	341	Transportation Equipment	3.00%	-	-	-	-	-	-	-	738	24,585	7,839
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	22,414	-	22,414	-	-	-	-	1,345	56,031	12,910
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
31	346	Communication Equipment	3.00%	1,649	-	1,649	-	-	-	-	72	3,210	804
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		242,710	(10,847)	231,863	-	9,111	9,111	-	92,019	3,271,216	1,456,997

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.5
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	1995 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	5,086	-	5,086	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	95,415	-	95,415	-	-	-	-	3,332	158,781	34,957
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	205,071	-	205,071	-	-	-	-	7,679	358,517	84,261
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	531,947	(16,125)	515,822	-	22,955	22,955	-	15,081	749,145	89,323
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	8,948	-	8,948	-	-	-	-	626	25,348	7,037
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	211,912	-	211,912	-	-	-	-	9,648	427,546	117,267
17	330.2	Pressure Tanks	3.00%	40,924	-	40,924	-	-	-	-	914	50,924	5,905
18	331	Transmission & Distribution Mains	3.00%	117,738	-	117,738	-	-	-	-	37,674	1,314,658	588,127
19	333	Services	3.00%	42,162	-	42,162	-	-	-	-	16,450	569,407	279,586
20	334	Meters	3.00%	16,795	-	16,795	-	-	-	-	6,554	226,855	88,620
21	335	Hydrants	3.00%	34,000	-	34,000	-	-	-	-	13,795	476,850	227,841
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	-	-	-	-	-	-	-	79	2,640	1,397
25	340.1	Computers & Software	3.00%	-	-	-	-	-	-	-	-	-	-
26	341	Transportation Equipment	3.00%	-	-	-	-	-	-	-	738	24,585	8,576
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	954	-	954	-	-	-	-	1,695	56,985	14,605
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
31	346	Communication Equipment	3.00%	-	-	-	-	-	-	-	96	3,210	901
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		1,310,951	(16,125)	1,294,827	-	22,955	22,955	-	114,362	4,543,088	1,548,403

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.6
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	1996 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	10,033	-	10,033	-	-	-	-	4,914	168,814	39,871
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	5,895	-	5,895	-	-	-	-	10,844	364,412	95,105
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	64,372	(9,461)	54,911	-	-	-	-	23,298	804,056	112,621
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	-	-	-	-	-	-	-	760	25,348	7,797
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	1,520	-	1,520	-	-	-	-	12,849	429,066	130,116
17	330.2	Pressure Tanks	3.00%	-	-	-	-	-	-	-	1,528	50,924	7,433
18	331	Transmission & Distribution Mains	3.00%	70,621	-	70,621	-	-	-	-	40,499	1,385,279	628,626
19	333	Services	3.00%	28,729	-	28,729	-	-	-	-	17,513	598,136	297,100
20	334	Meters	3.00%	50,337	-	50,337	-	-	-	-	7,561	277,192	96,181
21	335	Hydrants	3.00%	11,550	-	11,550	-	-	-	-	14,479	488,400	242,320
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	-	-	-	-	-	-	-	79	2,640	1,476
25	340.1	Computers & Software	3.00%	-	-	-	-	-	-	-	-	-	-
26	341	Transportation Equipment	3.00%	8,000	-	8,000	-	-	-	-	858	32,585	9,434
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	4,211	(1,423)	2,787	-	-	-	-	1,751	59,772	16,356
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	2,125	-	2,125	-	-	-	-	32	2,125	32
31	346	Communication Equipment	3.00%	-	-	-	-	-	-	-	96	3,210	997
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		257,393	(10,884)	246,509	-	-	-	-	137,061	4,789,597	1,685,464

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.7
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	1997 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	-	-	-	-	-	-	-	5,064	168,814	44,936
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	-	-	-	-	-	-	-	10,932	364,412	106,038
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	75,492	-	75,492	-	52,540	52,540	-	24,466	827,008	84,547
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	-	-	-	-	-	-	-	760	25,348	8,558
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	-	-	-	-	-	-	-	12,872	429,066	142,988
17	330.2	Pressure Tanks	3.00%	-	-	-	-	-	-	-	1,528	50,924	8,960
18	331	Transmission & Distribution Mains	3.00%	263,564	-	263,564	-	-	-	-	45,512	1,648,843	674,137
19	333	Services	3.00%	117,056	-	117,056	-	-	-	-	19,700	715,192	316,800
20	334	Meters	3.00%	35,468	-	35,468	-	-	-	-	8,848	312,660	105,029
21	335	Hydrants	3.00%	58,630	-	58,630	-	-	-	-	15,531	547,030	257,852
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	-	-	-	-	-	-	-	79	2,640	1,555
25	340.1	Computers & Software	3.00%	-	-	-	-	-	-	-	-	-	-
26	341	Transportation Equipment	3.00%	17,108	-	17,108	-	-	-	-	1,234	49,693	10,668
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	928	-	928	-	-	-	-	1,807	60,700	18,163
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	-	-	-	-	-	-	-	64	2,125	96
31	346	Communication Equipment	3.00%	99,380	-	99,380	-	-	-	-	1,587	102,591	2,584
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		667,626	-	667,626	-	52,540	52,540	-	149,985	5,404,683	1,782,910

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.8
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	1998 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	218,067	(200,000)	18,067	-	-	-	-	5,335	186,881	50,271
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	500,000	(500,000)	-	-	17,772	17,772	-	10,666	346,640	98,931
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	876,040	(838,888)	37,153	-	1,453	1,453	-	25,346	862,708	108,440
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	1,163	-	1,163	-	-	-	-	778	26,511	9,336
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	-	-	-	-	-	-	-	12,872	429,066	155,860
17	330.2	Pressure Tanks	3.00%	-	-	-	-	-	-	-	1,528	50,924	10,488
18	331	Transmission & Distribution Mains	3.00%	17,011	-	17,011	-	-	-	-	49,720	1,665,854	723,858
19	333	Services	3.00%	37,577	-	37,577	-	-	-	-	22,019	752,769	338,819
20	334	Meters	3.00%	31,733	-	31,733	-	-	-	-	9,856	344,393	114,885
21	335	Hydrants	3.00%	-	-	-	-	-	-	-	16,411	547,030	274,263
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	-	-	-	-	-	-	-	79	2,640	1,634
25	340.1	Computers & Software	3.00%	866	-	866	-	-	-	-	13	866	13
26	341	Transportation Equipment	3.00%	14,132	-	14,132	13,223	-	13,223	-	1,504	50,602	(1,051)
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	2,868	-	2,868	-	-	-	-	1,864	63,568	20,027
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	2,226	-	2,226	-	-	-	-	97	4,352	193
31	346	Communication Equipment	3.00%	101,552	-	101,552	-	-	-	-	4,601	204,142	7,185
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		1,803,236	(1,538,888)	264,348	13,223	19,225	32,448	-	162,690	5,636,583	1,913,151

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.9
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	1999 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	-	-	-	-	-	-	-	5,606	186,881	55,877
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	-	-	-	-	-	-	-	10,399	346,640	109,331
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	196,797	(82,615)	114,183	-	5,250	5,250	-	27,515	971,641	130,705
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	2,825	-	2,825	-	-	-	-	838	29,336	10,173
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	-	-	-	-	-	-	-	12,872	429,066	168,732
17	330.2	Pressure Tanks	3.00%	957	-	957	-	-	-	-	1,542	51,881	12,030
18	331	Transmission & Distribution Mains	3.00%	327,584	-	327,584	-	-	-	-	54,889	1,993,437	778,747
19	333	Services	3.00%	86,486	-	86,486	-	-	-	-	23,880	839,255	362,699
20	334	Meters	3.00%	42,708	-	42,708	-	-	-	-	10,972	387,101	125,857
21	335	Hydrants	3.00%	65,970	-	65,970	-	-	-	-	17,400	613,000	291,663
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	-	-	-	-	-	-	-	79	2,640	1,713
25	340.1	Computers & Software	3.00%	4,148	-	4,148	-	-	-	-	88	5,015	101
26	341	Transportation Equipment	3.00%	1,855	-	1,855	-	-	-	-	1,546	52,457	495
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	4,595	-	4,595	-	-	-	-	1,976	68,163	22,003
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	623	-	623	-	-	-	-	140	4,974	333
31	346	Communication Equipment	3.00%	3,986	-	3,986	-	-	-	-	6,184	208,129	13,369
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		738,535	(82,615)	655,920	-	5,250	5,250	-	175,928	6,287,253	2,083,829

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.10
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2000 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	73,854	-	73,854	-	-	-	-	6,714	260,735	62,592
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	191,797	-	191,797	-	10,713	10,713	-	13,115	527,724	111,733
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	605,426	(20,717)	584,708	-	45,099	45,099	-	37,243	1,511,250	122,849
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	2,707	-	2,707	-	1,388	1,388	-	900	30,655	9,685
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	522,695	-	522,695	-	-	-	-	20,712	951,761	189,444
17	330.2	Pressure Tanks	3.00%	30,624	-	30,624	-	10,000	10,000	-	1,866	72,505	3,896
18	331	Transmission & Distribution Mains	3.00%	3,631	-	3,631	-	-	-	-	59,858	1,997,069	838,605
19	333	Services	3.00%	504,769	-	504,769	105,370	-	105,370	-	31,169	1,238,654	288,498
20	334	Meters	3.00%	68,383	-	68,383	-	-	-	-	12,639	455,484	138,496
21	335	Hydrants	3.00%	-	-	-	-	-	-	-	18,390	613,000	310,053
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	1,483	-	1,483	-	-	-	-	101	4,123	1,815
25	340.1	Computers & Software	3.00%	-	-	-	-	-	-	-	150	5,015	252
26	341	Transportation Equipment	3.00%	17,787	-	17,787	-	-	-	-	1,841	70,244	2,335
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	-	-	-	-	2,056	2,056	-	2,014	66,107	21,961
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	52,116	-	52,116	-	-	-	-	931	57,091	1,264
31	346	Communication Equipment	3.00%	3,464	-	3,464	-	-	-	-	6,296	211,592	19,665
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		2,078,734	(20,717)	2,058,017	105,370	69,256	174,626	-	213,939	8,170,644	2,123,143

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.11
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2001 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	-	-	-	-	-	-	-	7,822	260,735	70,414
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	5,438	(5,438)	-	-	-	-	-	15,832	527,724	127,565
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	95,274	(47,141)	48,134	-	500	500	-	46,052	1,558,883	168,401
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	713	(713)	-	-	-	-	-	920	30,655	10,605
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	-	-	-	-	-	-	-	28,553	951,761	217,997
17	330.2	Pressure Tanks	3.00%	-	-	-	-	-	-	-	2,175	72,505	6,071
18	331	Transmission & Distribution Mains	3.00%	-	-	-	-	-	-	-	59,912	1,997,069	898,517
19	333	Services	3.00%	740,222	-	740,222	117,178	-	117,178	-	46,505	1,861,698	217,825
20	334	Meters	3.00%	83,430	-	83,430	-	-	-	-	14,916	538,914	153,412
21	335	Hydrants	3.00%	-	-	-	-	-	-	-	18,390	613,000	328,443
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	-	-	-	-	-	-	-	124	4,123	1,939
25	340.1	Computers & Software	3.00%	-	-	-	-	-	-	-	150	5,015	402
26	341	Transportation Equipment	3.00%	2,907	-	2,907	-	-	-	-	2,151	73,150	4,486
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	16,665	-	16,665	-	-	-	-	2,233	82,771	24,195
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	53,455	-	53,455	-	-	-	-	2,515	110,546	3,778
31	346	Communication Equipment	3.00%	3,844	-	3,844	-	-	-	-	6,405	215,437	26,070
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		1,001,949	(53,292)	948,657	117,178	500	117,678	-	254,655	9,001,623	2,260,120

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.12
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2002 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	1,500	-	1,500	-	-	-	-	7,845	262,235	78,258
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	287,579	(287,579)	-	-	-	-	-	15,832	527,724	143,396
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	92,280	(16,178)	76,103	-	27,211	27,211	-	47,500	1,607,775	188,690
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	-	-	-	-	-	-	-	920	30,655	11,525
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	6,814	-	6,814	-	-	-	-	28,655	958,575	246,652
17	330.2	Pressure Tanks	3.00%	-	-	-	-	-	-	-	2,175	72,505	8,246
18	331	Transmission & Distribution Mains	3.00%	230,254	-	230,254	-	-	-	-	63,366	2,227,323	961,883
19	333	Services	3.00%	574,324	-	574,324	71,094	-	71,094	-	63,399	2,364,928	210,131
20	334	Meters	3.00%	61,979	-	61,979	-	-	-	-	17,097	600,893	170,509
21	335	Hydrants	3.00%	89,449	-	89,449	-	2,000	2,000	-	19,702	700,449	346,145
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	-	-	-	-	-	-	-	124	4,123	2,062
25	340.1	Computers & Software	3.00%	-	-	-	-	-	-	-	150	5,015	553
26	341	Transportation Equipment	3.00%	61,853	-	61,853	60,613	2,179	62,792	38,000	2,180	72,211	(18,125)
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	1,572	-	1,572	-	-	-	-	2,507	84,343	26,701
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	-	-	-	-	-	-	-	3,316	110,546	7,095
31	346	Communication Equipment	3.00%	2,144	-	2,144	-	6,976	6,976	-	6,391	210,604	25,485
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		1,409,747	(303,756)	1,105,991	131,707	38,366	170,073	38,000	281,158	9,937,541	2,409,205

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.13
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2003 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	6,520	(2,570)	3,950	-	-	-	-	7,926	266,185	86,185
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	-	-	-	-	-	-	-	15,832	527,724	159,228
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	132,687	(34,500)	98,188	-	47,250	47,250	-	48,997	1,658,713	190,437
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	1,987	-	1,987	-	-	-	-	949	32,642	12,474
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	-	-	-	-	1,000	1,000	-	28,742	957,575	274,394
17	330.2	Pressure Tanks	3.00%	-	-	-	-	-	-	-	2,175	72,505	10,421
18	331	Transmission & Distribution Mains	3.00%	290,233	-	290,233	-	-	-	-	71,173	2,517,556	1,033,056
19	333	Services	3.00%	435,687	-	435,687	49,692	-	49,692	-	76,738	2,750,923	237,176
20	334	Meters	3.00%	64,897	-	64,897	-	-	-	-	19,000	665,790	189,509
21	335	Hydrants	3.00%	120,601	-	120,601	-	500	500	-	22,815	820,550	368,460
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	-	-	-	-	-	-	-	124	4,123	2,186
25	340.1	Computers & Software	3.00%	2,631	-	2,631	-	-	-	-	190	7,646	742
26	341	Transportation Equipment	3.00%	24,945	-	24,945	2,000	5,533	7,533	-	2,428	89,623	(23,231)
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	2,337	-	2,337	-	928	928	-	2,551	85,752	28,325
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	-	-	-	-	-	-	-	3,316	110,546	10,411
31	346	Communication Equipment	3.00%	4,287	-	4,287	-	-	-	-	6,382	214,891	31,867
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		1,086,811	(37,070)	1,049,742	51,692	55,211	106,903	-	309,340	10,880,380	2,611,642

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.14
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2004 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	5,091	-	5,091	-	2,600	2,600	-	8,023	268,677	91,608
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	-	-	-	-	-	-	-	15,832	527,724	175,060
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	64,740	(24,716)	40,024	-	11,686	11,686	-	50,186	1,687,051	228,938
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	14,326	-	14,326	-	1,319	1,319	-	1,174	45,649	12,329
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	-	-	-	-	-	-	-	28,727	957,575	303,122
17	330.2	Pressure Tanks	3.00%	-	-	-	-	-	-	-	2,175	72,505	12,597
18	331	Transmission & Distribution Mains	3.00%	27,203	-	27,203	-	-	-	-	75,935	2,544,759	1,108,991
19	333	Services	3.00%	332,191	-	332,191	35,998	-	35,998	-	86,971	3,047,116	288,149
20	334	Meters	3.00%	50,270	-	50,270	-	-	-	-	20,728	716,060	210,237
21	335	Hydrants	3.00%	8,282	-	8,282	-	500	500	-	24,733	828,332	392,693
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	1,500	-	1,500	-	-	-	-	146	5,623	2,332
25	340.1	Computers & Software	3.00%	-	-	-	-	-	-	-	229	7,646	972
26	341	Transportation Equipment	3.00%	11,372	-	11,372	16,536	2,431	18,967	9,425	2,575	82,027	(30,198)
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	1,964	-	1,964	-	-	-	-	2,602	87,716	30,927
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	-	-	-	-	-	-	-	3,316	110,546	13,727
31	346	Communication Equipment	3.00%	9,716	-	9,716	-	-	-	-	6,592	224,607	38,460
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		526,656	(24,716)	501,939	52,534	18,536	71,070	9,425	329,945	11,311,249	2,879,942

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.15
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2005 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	-	-	-	-	-	-	-	8,060	268,677	99,668
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	33,092	-	33,092	-	15,457	15,457	-	16,096	545,359	175,699
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	83,364	(71,431)	11,933	-	-	-	-	50,791	1,698,984	279,728
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	4,531	-	4,531	-	5,988	5,988	-	1,348	44,192	7,689
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	-	-	-	-	-	-	-	28,727	957,575	331,849
17	330.2	Pressure Tanks	3.00%	-	-	-	-	-	-	-	2,175	72,505	14,772
18	331	Transmission & Distribution Mains	3.00%	344,940	-	344,940	-	-	-	-	81,517	2,889,700	1,190,508
19	333	Services	3.00%	472,257	-	472,257	37,474	-	37,474	-	97,935	3,481,899	348,610
20	334	Meters	3.00%	79,639	-	79,639	-	-	-	-	22,676	795,699	232,913
21	335	Hydrants	3.00%	43,480	-	43,480	-	-	-	-	25,502	871,811	418,195
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	-	-	-	-	-	-	-	169	5,623	2,501
25	340.1	Computers & Software	3.00%	15,827	-	15,827	-	-	-	-	467	23,473	1,439
26	341	Transportation Equipment	3.00%	750	-	750	-	7,521	7,521	-	2,359	75,256	(35,360)
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	1,200	-	1,200	-	-	-	-	2,649	88,916	33,576
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	-	-	-	-	-	-	-	3,316	110,546	17,044
31	346	Communication Equipment	3.00%	-	-	-	-	-	-	-	6,738	224,607	45,198
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		1,079,081	(71,431)	1,007,650	37,474	28,966	66,440	-	350,527	12,252,458	3,164,028

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.16
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2006 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	-	-	-	-	-	-	-	8,060	268,677	107,728
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	-	-	-	-	-	-	-	16,361	545,359	192,060
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	89,679	(58,153)	31,527	-	6,714	6,714	-	51,342	1,723,797	324,356
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	6,347	-	6,347	-	-	-	-	1,421	50,539	9,110
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	-	-	-	-	-	-	-	28,727	957,575	360,576
17	330.2	Pressure Tanks	3.00%	-	-	-	-	-	-	-	2,175	72,505	16,947
18	331	Transmission & Distribution Mains	3.00%	-	-	-	-	-	-	-	86,691	2,889,700	1,277,199
19	333	Services	3.00%	357,742	-	357,742	29,274	-	29,274	-	109,384	3,810,367	428,720
20	334	Meters	3.00%	34,418	(3,089)	31,329	-	-	-	-	24,341	827,028	257,254
21	335	Hydrants	3.00%	-	-	-	-	-	-	-	26,154	871,811	444,349
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	-	-	-	-	-	-	-	169	5,623	2,669
25	340.1	Computers & Software	3.00%	431	-	431	-	-	-	-	711	23,903	2,149
26	341	Transportation Equipment	3.00%	-	-	-	-	908	908	-	2,244	74,348	(34,024)
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	-	-	-	-	8,050	8,050	-	2,547	80,866	28,073
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	-	-	-	-	-	-	-	3,316	110,546	20,360
31	346	Communication Equipment	3.00%	4,243	-	4,243	-	3,150	3,150	-	6,755	225,700	48,803
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		492,861	(61,242)	431,619	29,274	18,822	48,096	-	370,397	12,635,981	3,486,330

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.17
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2007 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	-	-	-	-	-	-	-	8,060	268,677	115,788
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	-	-	-	-	-	-	-	16,361	545,359	208,421
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	272,215	(21,213)	251,002	-	43,805	43,805	-	54,822	1,930,993	335,373
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	-	-	-	-	-	-	-	1,516	50,539	10,626
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	136,912	-	136,912	-	-	-	-	30,781	1,094,487	391,357
17	330.2	Pressure Tanks	3.00%	-	-	-	-	-	-	-	2,175	72,505	19,122
18	331	Transmission & Distribution Mains	3.00%	1,879	-	1,879	-	-	-	-	86,719	2,891,578	1,363,918
19	333	Services	3.00%	275,451	-	275,451	23,698	-	23,698	-	118,087	4,062,120	523,109
20	334	Meters	3.00%	19,990	-	19,990	-	-	-	-	25,111	847,018	282,365
21	335	Hydrants	3.00%	-	-	-	-	-	-	-	26,154	871,811	470,504
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	204	-	204	-	-	-	-	172	5,826	2,841
25	340.1	Computers & Software	3.00%	3,082	-	3,082	-	-	-	-	763	26,985	2,913
26	341	Transportation Equipment	3.00%	14,300	-	14,300	21,162	-	21,162	1,851	2,128	67,486	(51,208)
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	-	-	-	-	5,900	5,900	-	2,337	74,966	24,510
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	-	-	-	-	-	-	-	3,316	110,546	23,676
31	346	Communication Equipment	3.00%	-	-	-	-	-	-	-	6,771	225,700	55,574
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		724,033	(21,213)	702,819	44,860	49,705	94,565	1,851	385,274	13,244,236	3,778,890

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.18
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2008 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	83,986	(44,313)	39,673	-	-	-	-	8,655	308,350	124,444
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	229,783	(179,493)	50,290	-	-	-	-	17,115	595,649	225,536
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	375,212	(262,374)	112,838	-	15,295	15,295	-	59,393	2,028,536	379,471
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	5,165	-	5,165	-	3,500	3,500	-	1,541	52,205	8,667
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	-	-	-	-	-	-	-	32,835	1,094,487	424,192
17	330.2	Pressure Tanks	3.00%	-	-	-	-	-	-	-	2,175	72,505	21,297
18	331	Transmission & Distribution Mains	3.00%	20,188	-	20,188	-	-	-	-	87,050	2,911,766	1,450,968
19	333	Services	3.00%	293,123	(6,613)	286,510	20,664	-	20,664	-	125,851	4,327,966	628,297
20	334	Meters	3.00%	20,720	(2,055)	18,666	-	-	-	-	25,691	865,684	308,055
21	335	Hydrants	3.00%	15,570	-	15,570	-	-	-	-	26,388	887,381	496,892
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	1,600	-	1,600	1,500	-	1,500	-	176	5,926	1,517
25	340.1	Computers & Software	3.00%	-	-	-	-	-	-	-	810	26,985	3,722
26	341	Transportation Equipment	3.00%	-	-	-	-	-	-	-	2,025	67,486	(49,183)
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	35,000	-	35,000	-	-	-	-	2,774	109,966	27,284
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	-	-	-	-	-	-	-	3,316	110,546	26,993
31	346	Communication Equipment	3.00%	-	-	-	-	-	-	-	6,771	225,700	62,345
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		1,080,346	(494,847)	585,499	22,164	18,795	40,959	-	402,566	13,788,776	4,140,497

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.19
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2009 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	10,576	-	10,576	-	3,800	3,800	-	9,352	315,125	129,996
5	305	Collecting & Impounding Reservoirs	3.00%	-	-	-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-	-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	-	-	-	-	-	-	-	17,869	595,649	243,405
8	308	Infiltration Galleries	3.00%	-	-	-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	226,802	(21,325)	205,476	-	61,631	61,631	-	63,014	2,172,382	380,854
12	320	Water Treatment Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-	-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	-	-	-	-	-	-	-	1,566	52,205	10,233
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-	-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	7,710	-	7,710	-	-	-	-	32,950	1,102,197	457,142
17	330.2	Pressure Tanks	3.00%	1,431	-	1,431	-	-	-	-	2,197	73,937	23,494
18	331	Transmission & Distribution Mains	3.00%	4,282	-	4,282	-	-	-	-	87,417	2,916,048	1,538,385
19	333	Services	3.00%	220,238	-	220,238	17,958	-	17,958	-	132,873	4,530,246	743,212
20	334	Meters	3.00%	27,743	-	27,743	-	-	-	-	26,387	893,426	334,442
21	335	Hydrants	3.00%	-	-	-	-	-	-	-	26,621	887,381	523,513
22	336	Backflow Prevention Devices	3.00%	-	-	-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	-	-	-	-	1,687	1,687	-	152	4,239	(17)
25	340.1	Computers & Software	3.00%	2,641	-	2,641	-	5,014	5,014	-	774	24,613	(518)
26	341	Transportation Equipment	3.00%	-	-	-	-	-	-	-	2,025	67,486	(47,158)
27	342	Stores Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	-	-	-	-	-	-	-	3,299	109,966	30,583
29	344	Laboratory Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	9,115	-	9,115	-	-	-	-	3,453	119,660	30,446
31	346	Communication Equipment	3.00%	13,239	-	13,239	-	-	-	-	6,970	238,939	69,314
32	347	Miscellaneous Equipment	3.00%	-	-	-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-	-	-	-	-	-	-	-	-
34		Const. Work in Progress											
35													
36		TOTALS		523,776	(21,325)	502,451	17,958	72,132	90,090	-	416,920	14,201,137	4,467,326

Pima Utility Company - Water Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.20
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2010 Plant Additions (Per Books)	Plant Adjustments	Rate Case Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	301	Organization Cost	0.00%	-	-		-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-		-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-		-	-	-	-	-	-	97,637	-
4	304	Structures & Improvements	3.00%	-	-		-	-	-	-	-	9,454	315,125	139,450
5	305	Collecting & Impounding Reservoirs	3.00%	-	-		-	-	-	-	-	-	-	-
6	306	Lake, River, Canal Intakes	3.00%	-	-		-	-	-	-	-	-	-	-
7	307	Wells & Springs	3.00%	11,050	-	3,902	14,952	-	-	-	-	18,094	610,601	261,499
8	308	Infiltration Galleries	3.00%	-	-		-	-	-	-	-	-	-	-
9	309	Raw Water Supply Mains	3.00%	-	-		-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	3.00%	-	-		-	-	-	-	-	-	-	-
11	311	Pumping Equipment	3.00%	220,917	(52,091)	5,937	174,763	-	77,407	77,407	-	66,632	2,269,738	370,078
12	320	Water Treatment Equipment	3.00%	-	-		-	-	-	-	-	-	-	-
13	320.1	Water Treatment Plants	3.00%	-	-		-	-	-	-	-	-	-	-
14	320.2	Solution Chemical Feeders	3.00%	8,051	-		8,051	-	2,000	2,000	-	1,657	58,255	9,890
15	330	Distribution Reservoirs & Standpipes	3.00%	-	-		-	-	-	-	-	-	-	-
16	330.1	Storage Tanks	3.00%	-	-		-	-	-	-	-	33,066	1,102,197	490,208
17	330.2	Pressure Tanks	3.00%	1,433	-		1,433	-	1,433	1,433	-	2,218	73,937	24,279
18	331	Transmission & Distribution Mains	3.00%	-	-		-	-	-	-	-	87,481	2,916,048	1,625,867
19	333	Services	3.00%	199,648	-	15,692	215,340	20,746	-	20,746	-	138,826	4,724,840	861,292
20	334	Meters	3.00%	29,776	-		29,776	-	-	-	-	27,249	923,202	361,692
21	335	Hydrants	3.00%	-	-		-	-	-	-	-	26,621	887,381	550,134
22	336	Backflow Prevention Devices	3.00%	-	-		-	-	-	-	-	-	-	-
23	339	Other Plant & Misc Equipment	3.00%	-	-		-	-	-	-	-	-	-	-
24	340	Office Furniture & Equipment	3.00%	-	-		-	-	-	-	-	127	4,239	110
25	340.1	Computers & Software	3.00%	3,867	-		3,867	-	-	-	-	796	28,479	278
26	341	Transportation Equipment	3.00%	-	-		-	5,851	-	5,851	-	1,937	61,635	(51,073)
27	342	Stores Equipment	3.00%	-	-		-	-	-	-	-	-	-	-
28	343	Tools, Shop & Garage Equipment	3.00%	24,539	-		24,539	-	-	-	-	3,667	134,506	34,251
29	344	Laboratory Equipment	3.00%	-	-		-	-	-	-	-	-	-	-
30	345	Power Operated Equipment	3.00%	5,239	-		5,239	-	-	-	-	3,668	124,899	34,114
31	346	Communication Equipment	3.00%	-	-		-	-	-	-	-	7,168	238,939	76,482
32	347	Miscellaneous Equipment	3.00%	-	-		-	-	-	-	-	-	-	-
33	348	Other Tangible Plant	3.00%	-	-		-	-	-	-	-	-	-	-
34		Const. Work in Progress												
35														
36		TOTALS		504,520	(52,091)	25,531	477,960	26,597	80,840	107,437	-	428,663	14,571,659	4,788,552

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Original Cost Rate Base Proforma Adjustments
Adjustment Number 2

Exhibit
Rebuttal Schedule B-2
Page 4
Witness: Bourassa

Accumulated Depreciation

Line No.	Acct. No.	Description	Adjusted Accum. Depr.	A Depr. Related to Capitalized Expenses	B Difference to Computed Balance	Adjustments C Intentionally Left Blank	D Intentionally Left Blank	E Intentionally Left Blank	Adjusted Accum. Depr.
6	301	Organization Cost	-		-				-
7	302	Franchise Cost	-		-				-
8	303	Land and Land Rights	-		-				-
9	304	Structures and Improvements	139,450		-				139,450
10	305	Collecting and Impounding Res.	-		-				-
11	306	Lake River and Other Intakes	-		-				-
12	307	Wells and Springs	261,440	59	-				261,499
13	308	Infiltration Galleries and Tunnels	-		-				-
14	309	Supply Mains	-		-				-
15	310	Power Generation Equipment	-		-				-
16	311	Electric Pumping Equipment	369,989	89	-				370,078
17	320	Water Treatment Equipment	-		-				-
18	320.1	Water Treatment Plant	-		-				-
19	320.2	Chemical Solution Feeders	9,890		-				9,890
20	330	Dist. Reservoirs & Standpipe	-		-				-
21	330.1	Storage tanks	490,208		-				490,208
22	330.2	Pressure Tanks	24,279		-				24,279
23	331	Trans. and Dist. Mains	1,625,867		-				1,625,867
24	333	Services	861,057	235	-				861,292
25	334	Meters	361,692		-				361,692
26	335	Hydrants	550,134		-				550,134
27	336	Backflow Prevention Devices	-		-				-
28	339	Other Plant and Misc. Equip.	-		-				-
29	340	Office Furniture and Fixtures	110		(0)				110
30	340.1	Computers and Software	278		-				278
31	341	Transportation Equipment	(51,073)		-				(51,073)
32	342	Stores Equipment	-		-				-
33	343	Tools and Work Equipment	34,251		-				34,251
34	344	Laboratory Equipment	-		-				-
35	345	Power Operated Equipment	34,114		-				34,114
36	346	Communications Equipment	76,482		-				76,482
37	347	Miscellaneous Equipment	-		-				-
38	348	Other Tangible Plant	-		-				-
39			-						-
40		TOTALS	$ 4,788,169	$ 383	$ (0)	$ -	$ -	$ -	$ 4,788,552
41									
42	Accumulated Depreciation per Direct								$ 4,788,169
43									
44	Increase (decrease) in Accumulated Depreciation								$ 383
45									
46	Adjustment to Accumulated Depreciation								$ 383
47									
48	SUPPORTING SCHEDULES								
49	B-2, pages 4.1								
50	B-2, pages 3.2 to 3.19								

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
B-2 Adjustment 2 - A
Depreciation Related to Capitalized Expenses

Exhibit
Rebuttal Schedule B-2
Page 4.1
Witness: Bourassa

Line No.	Plant Acct	Description	Amount	Depr Rate	Years	Depreciation
1	307	Wells and Springs	$ 3,902	3.00%	0.5	$ 59
2	311	Electric Pumping Equipment	5,937	3.00%	0.5	89
3	333	Services	15,692	3.00%	0.5	235
4						
5		Total				$ 383
6						
7						
8	Increase in Accumulated Depreciation					$ 383
9						
10						
11						
12						
13						
14						
15						
16	Reference/Supporting Schedule					
17	Staff Rate Base Adjustment No. 2, Schedule CSB-5					
18						
19						
20						
21						
22						
23						
24						
25						

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
B-2 Adjustment 3
Reclassify AIAC to CIAC

Exhibit
Rebuttal Schedule B-2
Page 5
Witness: Bourassa

Line No.		
1	Advances-in-aid of Construction related to bankrupt developer	$ 374,236
2	Unrefunded AIAC related to bankrupt developer	49,353
3		
4	Total	$ 423,589
5		
6		
7	Increase (Decrease) in AIAC	$ (374,236)
8		
9		
10	Increase (Decrease) in CIAC	$ 423,589
11		
12		
13		
14		
15	Reference/Supporting Schedule	
16	RUCO Rate Base Adjustment No. 1, Schedule RBM-6	
17		
18		
19		
20		
21		
22		
23		
24		

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Computation of Working Capital

Exhibit
Rebuttal Schedule B-5
Page 1
Witness: Bourassa

Line No.			
1	Cash Working Capital (1/8 of Allowance		
2	Operation and Maintenance Expense)	$	87,361
3	Pumping Power (1/24 of Pumping Power)		10,519
4	Purchased Water (1/24 of Purchased Water)		-
5	Prepaid Expenses		
6			
7			
8			
9	Total Working Capital Allowance	$	97,880
10			
11			
12	Working Capital Requested	$	-
13			
14			
15			
16			
17		Adjusted Test Year	
18	Total Operating Expense	$	1,735,835
19	Less:		
20	Income Tax	$	39,984
21	Property Tax		77,191
22	Depreciation		667,320
23	Purchased Water		-
24	Pumping Power		252,453
25	Allowable Expenses	$	698,886
26	1/8 of allowable expenses	$	87,361
27			
28			
29	SUPPORTING SCHEDULES:	RECAP SCHEDULES:	
30	E-1	B-1	
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Income Statement

Exhibit
Rebuttal Schedule C-1
Page 1
Witness: Bourassa

Line No.		Direct Adjusted Results	Adjustment	Rebuttal Adjusted Results	Proposed Rate Increase	Adjusted with Rate Increase
1	**Revenues**					
2	*Metered Water Revenues*	$ 1,970,366	$ -	$ 1,970,366	$ 713,480	$ 2,683,846
3	Unmetered Water Revenues	-	-	-		-
4	Other Water Revenues	7,261	-	7,261		7,261
5		$ 1,977,627	$ -	$ 1,977,627	$ 713,480	$ 2,691,108
6	**Operating Expenses**					
7	Salaries and Wages	$ 220,827	-	$ 220,827		$ 220,827
8	Salaries and Wages - Off. and Dir.	90,294	(50,096)	40,198		40,198
9	Employee Pensions and Benefits	64,900	-	64,900		64,900
10	Purchased Water	-	-	-		-
11	Purchased Power	252,453	-	252,453		252,453
12	Chemicals	16,721	-	16,721		16,721
13	Repairs and Maintenance	100,885	(29,489)	71,396		71,396
14	Office Supplies and Expense	67,321	(460)	66,861		66,861
15	Contractual Services - Engineering	5,283	(3,902)	1,381		1,381
16	Contractual Services - Accounting	3,067	-	3,067		3,067
17	Contractual Services - Legal	14,175	-	14,175		14,175
18	Contractual Services - Other	54,797	(415)	54,382		54,382
19	*Contractual Services - Water Testing*	18,737	(9,812)	8,925		8,925
20	Rents - Equipment	3,203	-	3,203		3,203
21	Transportation Expenses	44,637	-	44,637		44,637
22	Insurance - Vehicle	17,464	-	17,464		17,464
23	Insurance - General Liability	10,840	-	10,840		10,840
24	Insurance - Worker's Comp	1,009	-	1,009		1,009
25	Reg. Comm. Exp.	3,671	-	3,671		3,671
26	Reg. Comm. Exp. - Rate Case	50,000	(50,000)	-		-
27	Bad Debt Expense	4,766	-	4,766		4,766
28	Miscellaneous Expense	15,934	(6,354)	9,580		9,580
29	Depreciation Expense	686,998	(19,677)	667,320		667,320
30	Taxes Other Than Income	40,883	-	40,883		40,883
31	Property Taxes	83,358	(6,167)	77,191	9,555	86,746
32	Income Tax	(27,157)	67,141	39,984	193,539	233,523
33			-	-		-
34	**Total Operating Expenses**	$ 1,845,067	$ (109,232)	$ 1,735,835	$ 203,094	$ 1,938,929
35	**Operating Income**	$ 132,560	$ 109,232	$ 241,792	$ 510,386	$ 752,178
36	**Other Income (Expense)**					
37	Interest Income	48,219	-	48,219		48,219
38	Other income	1,254	-	1,254		1,254
39	Interest Expense	(203,041)	66,693	(136,349)		(136,349)
40	Other Expense	(1,692)	-	(1,692)		(1,692)
41		(758)	-	(758)		(758)
42	**Total Other Income (Expense)**	$ (156,017)	$ 66,693	$ (89,325)	$ -	$ (89,325)
43	**Net Profit (Loss)**	$ (23,457)	$ 175,924	$ 152,467	$ 510,386	$ 662,853
44						
45	SUPPORTING SCHEDULES:				RECAP SCHEDULES:	
46	C-1, page 2				A-1	
47	E-2					
48						

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Income Statement

Exhibit
Rebuttal Schedule C-1
Page 2.1
Witness: Bourassa

Line No.		LABEL>>>>> Direct Adjusted Results	1 Depreciation	2 Property Taxes	3 Rate Case Expense	4 Salaries & Wages	5 Office Supplies and Expense	6 Repairs & Maintenance	7 Contractual Services - Engineering	8 Contractual Services - Testing	9 Contractual Services - Other
1	**Revenues**										
2	Metered Water Revenues	$ 1,970,366									
3	Unmetered Water Revenues	-									
4	Other Water Revenues	7,261									
5		$ 1,977,627	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	**Operating Expenses**										
7	Salaries and Wages	$ 220,827									
8	Salaries and Wages - Off. and Dir.	90,294				(50,096)					
9	Employee Pensions and Benefits	64,900									
10	Purchased Water	-									
11	Purchased Power	252,453									
12	Chemicals	16,721									
13	Repairs and Maintenance	100,885						(29,489)			
14	Office Supplies and Expense	67,321					(460)				
15	Contractual Services - Engineering	5,283							(3,902)		
16	Contractual Services - Accounting	3,067									
17	Contractual Services - Legal	14,175									
18	Contractual Services - Other	54,797									(415)
19	Contr. Services - Water Testing	18,737								(9,812)	
20	Rents - Equipment	3,203									
21	Transportation Expenses	44,637									
22	Insurance - Vehicle	17,464									
23	Insurance - General Liability	10,840									
24	Insurance - Worker's Comp	1,009									
25	Reg. Comm. Exp.	3,671									
26	Reg. Comm. Exp. - Rate Case	50,000			(50,000)						
27	Bad Debt Expense	4,766									
28	Miscellaneous Expense	15,934									
29	Depreciation Expense	686,998	(19,677)								
30	Taxes Other Than Income	40,883									
31	Property Taxes	83,358		(6,167)							
32	Income Tax	(27,157)									
33											
34	**Total Operating Expenses**	$ 1,845,067	$ (19,677)	$ (6,167)	$ (50,000)	$ (50,096)	$ (460)	$ (29,489)	$ (3,902)	$ (9,812)	$ (415)
35	**Operating Income**	$ 132,560	$ 19,677	$ 6,167	$ 50,000	$ 50,096	$ 460	$ 29,489	$ 3,902	$ 9,812	$ 415
36	**Other Income (Expense)**										
37	Interest Income	48,219									
38	Other income	1,254									
39	Interest Expense	(203,041)									
40	Other Expense	(1,692)									
41	Gain/Loss on Disposal	(758)									
42	**Total Other Income (Expense)**	$ (156,017)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
43	**Net Profit (Loss)**	$ (23,457)	$ 19,677	$ 6,167	$ 50,000	$ 50,096	$ 460	$ 29,489	$ 3,902	$ 9,812	$ 415
44											
45	SUPPORTING SCHEDULES:										
46	C-2										
47	E-2										

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Income Statement

Exhibit
Rebuttal Schedule C-1
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Line No.		10 Bank Fees	11 Intentionally Left Blank	12 Intentionally Left Blank	13 Intentionally Left Blank	14 Intentionally Left Blank	15 Interest Synch.	16 Income tax	Rebuttal Adjusted Results	Proposed Rate Increase	Adjusted with Rate Increase
1	**Revenues**								$ 1,970,366	$ 713,480	$ 2,683,846
2	Metered Water Revenues								-		-
3	Unmetered Water Revenues								7,261		7,261
4	Other Water Revenues										
5		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,977,627	$ 713,480	$ 2,691,108
6	**Operating Expenses**								$ 220,827		$ 220,827
7	Salaries and Wages								40,198		40,198
8	Salaries and Wages - Off. and Dir.								64,900		64,900
9	Employee Pensions and Benefits								-		-
10	Purchased Water								252,453		252,453
11	Purchased Power								16,721		16,721
12	Chemicals								71,396		71,396
13	Repairs and Maintenance								66,861		66,861
14	Office Supplies and Expense								1,381		1,381
15	Contractual Services - Engineering								3,067		3,067
16	Contractual Services - Accounting								14,175		14,175
17	Contractual Services - Legal								54,382		54,382
18	Contractual Services - Other								8,925		8,925
19	Contr. Services - Water Testing								3,203		3,203
20	Rents - Equipment								44,637		44,637
21	Transportation Expenses								17,464		17,464
22	Insurance - Vehicle								10,840		10,840
23	Insurance - General Liability								1,009		1,009
24	Insurance - Worker's Comp								3,671		3,671
25	Reg. Comm. Exp.								-		-
26	Reg. Comm. Exp. - Rate Case								4,766		4,766
27	Bad Debt Expense								9,580		9,580
28	Miscellaneous Expense	(6,354)							667,320		667,320
29	Depreciation Expense								40,883		40,883
30	Taxes Other Than Income								77,191	9,555	86,746
31	Property Taxes							67,141	39,984	193,539	233,523
32	Income Tax										
33											
34	**Total Operating Expenses**	$ (6,354)	$ -	$ -	$ -	$ -	$ -	$ 67,141	$ 1,735,835	$ 203,094	$ 1,938,929
35	**Operating Income**	$ 6,354	$ -	$ -	$ -	$ -	$ -	$ (67,141)	$ 241,792	$ 510,386	$ 752,178
36	**Other Income (Expense)**										
37	Interest Income								48,219		48,219
38	Other income								1,254		1,254
39	Interest Expense						66,693		(136,349)		(136,349)
40	Other Expense								(1,692)		(1,692)
41	Gain/Loss on Disposal								(758)		(758)
42	**Total Other Income (Expense)**	$ -	$ -	$ -	$ -	$ -	$ 66,693	$ -	$ (89,325)	$ -	$ (89,325)
43	**Net Profit (Loss)**	$ 6,354	$ -	$ -	$ -	$ -	$ 66,693	$ (67,141)	$ 152,467	$ 510,386	$ 662,853
44											
45	SUPPORTING SCHEDULES:										
46	C-2										
47	E-2										

RECAP SCHEDULES:
C-1, page 1

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Adjustments to Revenues and Expenses

Exhibit
Rebuttal Schedule C-2
Page 1
Witness: Bourassa

Adjustments to Revenues and Expenses

Line No.		1	2	3	4	5	6	Subtotal
		Depreciation Expense	Property Taxes	Rate Case Expense	Salaries & Wages	Office Supplies and Expense	Repairs & Maintenance	
4	Revenues							-
6	Expenses	(19,677)	(6,167)	(50,000)	(50,096)	(460)	(29,489)	(155,890)
8 9	Operating Income	19,677	6,167	50,000	50,096	460	29,489	155,890
11 12	Interest Expense							-
13 14 15	Other Income / Expense						-	-
17	Net Income	19,677	6,167	50,000	50,096	460	29,489	155,890

Adjustments to Revenues and Expenses

Line No.		7	8	9	10	11	12	Subtotal
		Contractual Services - Engineering	Contractual Services - Testing	Contractual Services - Other	Bank Fees	Intentionally Left Blank	Intentionally Left Blank	
25	Revenues							-
27	Expenses	(3,902)	(9,812)	(415)	(6,354)			(176,373)
29 30	Operating Income	3,902	9,812	415	6,354	-	-	176,373
32 33	Interest Expense	-						-
34 35 36	Other Income / Expense							-
38	Net Income	3,902	9,812	415	6,354	-	-	176,373

Adjustments to Revenues and Expenses

Line No.		13	14	15	16	17	18	Total
		Intentionally Left Blank	Intentionally Left Blank	Interest Synch.	Income Taxes	Intentionally Left Blank	Intentionally Left Blank	
46	Revenues							-
48	Expenses				67,141			(109,232)
50 51	Operating Income	-	-	-	(67,141)	-	-	109,232
53 54	Interest Expense			66,693				66,693
55 56 57	Other Income / Expense							-
59	Net Income	-	-	66,693	(67,141)	-	-	175,924

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Adjustments to Revenues and Expenses
Adjustment Number 1

Exhibit
Rebuttal Schedule C-2
Page 2
Witness: Bourassa

Depreciation Expense

Line No.	Acct. No.	Description	Adjusted Original Cost	Proposed Rates	Depreciation Expense
1					
2					
3					
4					
5	301	Organization Cost	-	0.00%	-
6	302	Franchise Cost	-	0.00%	-
7	303	Land and Land Rights	97,637	0.00%	-
8	304	Structures and Improvements	315,125	3.33%	10,494
9	305	Collecting and Impounding Res.	-	2.50%	-
10	306	Lake River and Other Intakes	-	2.50%	-
11	307	Wells and Springs	610,601	3.33%	20,333
12	308	Infiltration Galleries and Tunnels	-	6.67%	-
13	309	Supply Mains	-	2.00%	-
14	310	Power Generation Equipment	-	5.00%	-
15	311	Electric Pumping Equipment	2,269,738	12.50%	283,717
16	320	Water Treatment Equipment	-	3.33%	-
17	320.1	Water Treatment Plant	-	3.33%	-
18	320.2	Chemical Solution Feeders	58,255	20.00%	11,651
19	330	Dist. Reservoirs & Standpipe	-	2.22%	-
20	330.1	Storage tanks	1,102,197	2.22%	24,469
21	330.2	Pressure Tanks	73,937	5.00%	3,697
22	331	Trans. and Dist. Mains	2,916,048	2.00%	58,321
23	333	Services	4,724,840	3.33%	157,337
24	334	Meters	923,202	8.33%	76,903
25	335	Hydrants	887,381	2.00%	17,748
26	336	Backflow Prevention Devices	-	6.67%	-
27	339	Other Plant and Misc. Equip.	-	6.67%	-
28	340	Office Furniture and Fixtures	4,239	6.67%	283
29	340.1	Computers and Software	28,479	20.00%	5,696
30	341	Transportation Equipment	61,635	20.00%	12,327
31	342	Stores Equipment	-	4.00%	-
32	343	Tools and Work Equipment	134,506	5.00%	6,725
33	344	Laboratory Equipment	-	10.00%	-
34	345	Power Operated Equipment	124,899	5.00%	6,245
35	346	Communications Equipment	238,939	10.00%	23,894
36	347	Miscellaneous Equipment	-	10.00%	-
37	348	Other Tangible Plant	-	10.00%	-
38		TOTALS	$ 14,571,659		$ 719,839
39					
40			Gross CIAC	Amort. Rate	
41	Less: Amortization of Contributions		$ 1,056,007	4.9733%	$ (52,519)
42	Total Depreciation Expense				$ 667,320
43					
44	Adjusted Test Year Depreciation Expense				686,998
45					
46	Increase (decrease) in Depreciation Expense				(19,677)
47					
48	Adjustment to Revenues and/or Expenses				$ (19,677)
49					
50	SUPPORTING SCHEDULE				
51	B-2, page 3				

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 2

Exhibit
Rebuttal Schedule C-2
Page 3
Witness: Bourassa

Property Taxes

Line No.	DESCRIPTION	Test Year as adjusted	Company Recommended
1	Company Adjusted Test Year Revenues - 2007	$ 1,977,627	$ 1,977,627
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	3,955,255	3,955,255
4	Company Recommended Revenue	1,977,627	2,691,108
5	Subtotal (Line 4 + Line 5)	5,932,882	6,646,363
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	1,977,627	2,215,454
8	Department of Revenue Mutilplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	3,955,255	4,430,908
10	Plus: 10% of CWIP - 2010	-	-
11	Less: Net Book Value of Licensed Vehicles	112,708	112,708
12	Full Cash Value (Line 9 + Line 10 - Line 11)	3,842,547	4,318,200
13	Assessment Ratio	20.0%	20.0%
14	Assessment Value (Line 12 * Line 13)	768,509	863,640
15	Composite Property Tax Rate - Obtained from ADOR	10.0442%	10.0442%
16	Test Year Adjusted Property Tax Expense (Line 14 * Line 15)	$ 77,191	$ 86,746
17	Tax on Parcels	-	-
18	Total Property Taxes (Line 16 + Line 17)	$ 77,191	
19	Test Year Property Taxes	$ 83,358	
20	Adjustment to Test Year Property Taxes (Line 18 - Line 19)	**$ (6,167)**	
21			
22	Property Tax on Company Recommended Revenue (Line 16 + Line 17)		$ 86,746
23	Company Test Year Adjusted Property Tax Expense (Line 18)		$ 77,191
24	Increase in Property Tax Due to Increase in Revenue Requirement		**$ 9,555**
25			
26	Increase in Property Tax Due to Increase in Revenue Requirement (Line 24)		$ 9,555
27	Increase in Revenue Requirement		$ 713,480
28	Increase in Property Tax Per Dollar Increase in Revenue (Line 26 / Line 27)		1.33923%
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 3

Exhibit
Rebuttal Schedule C-2
Page 4
Witness: Bourassa

Rate Case Expense

Line No.			
1			
2			
3			
4			
5			
6			
7	Annual Rate Case Expense per Direct	$	50,000
8			
9	Amount to include in operating expenses	$	-
10			
11			
12	Increase(decrease) Rate Case Expense	$	(50,000)
13			
14	Adjustment to Revenue and/or Expense	$	(50,000)
15			
16			
17			
18			
19	REFERENCE		
20	See Testimony		

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 4

Exhibit
Rebuttal Schedule C-2
Page 5
Witness: Bourassa

Salaries and Wages - Offices and Directors

Line No.			
1			
2	Proposed Salaries and Wages for Officers and Directors	$	40,198
3			
4	Test Year Salaries and Wages - Officers and Directors	$	90,294
5			
6	Increase (decrease) in Salaries and Wages - Officers and Directors	$	(50,096)
7			
8			
9	Adjustment to Revenue and/or Expense	$	(50,096)
10			
11			
12			
13	REFERENCE		
14	Testimony		
15			
16			
17			
18			
19			
20			

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 5

Exhibit
Rebuttal Schedule C-2
Page 6
Witness: Bourassa

Office Supplies and Expense

Line No.			
1			
2			
3			
4	Remove coffee service expense	$	460
5			
6			
7			
8	Increase (decrease) in Office Supplies and Expense	$	(460)
9			
10			
11	Adjustment to Revenue and/or Expense	$	(460)
12			
13	REFERENCE/SUPPORTING SCHEDULES		
14	Staff Adjustment No. 4, Schedule CSB-11		
15			
16			
17			
18			
19			
20			

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 6

Exhibit
Rebuttal Schedule C-2
Page 7
Witness: Bourassa

Repairs and Maintenance

Line No.			
1			
2			
3	Remove capitalized expenses from Repairs and Maintenance	$	21,629
4	Normalization adjustment for tree removal costs		7,860
5	Total	$	29,489
6			
7			
8	Increase (decrease) in Repairs and Maintenance	$	(29,489)
9			
10			
11	Adjustment to Revenue and/or Expense	$	(29,489)
12			
13	REFERENCE/SUPPORTING SCHEDULES		
14	Staff Adjustment No. 3, Schedule CSB-10		
15			
16			
17			
18			
19			
20			

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 7

Exhibit
Rebuttal Schedule C-2
Page 8
Witness: Bourassa

Contractual Services - Engineering

Line No.			
1			
2	Remove capitalized expenses from Contractual Services - Eng.	$	3,902
3			
4			
5			
6			
7	Increase (decrease) in Contractual Services - Eng.	$	(3,902)
8			
9			
10	Adjustment to Revenue and/or Expense	$	(3,902)
11			
12	REFERENCE/SUPPORTING SCHEDULES		
13	Staff Adjustment No. 5, Schedule CSB-12		
14			
15			
16			
17			
18			
19			
20			

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2001
Adjustment to Revenues and Expenses
Adjustment Number 8

Exhibit
Rebuttal Schedule C-2
Page 9
Witness: Bourassa

Contractual Services - Testing

Line No.			
1			
2	Staff Recommended Testing Expenses	$	8,925
3			
4	Test Year Testing Expenses	$	18,737
5			
6	Increase (decrease) in Testing Expense	$	(9,812)
7			
8			
9		$	(9,812)
10			
11			
12			
13			
14			
15			
16	REFERENCE/SUPPORTING SCHEDULES		
17	Staff Adjustment No. 6, Schedule CSB-13		
18			
19			
20			

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 9

Exhibit
Rebuttal Schedule C-2
Page 10
Witness: Bourassa

Contractual Services - Other

Line No.			
1			
2	Remove expenses from Contractual Services -Other	$	415
3			
4			
5			
6			
7	Increase (decrease) in Contractual Services - Other	$	(415)
8			
9			
10	Adjustment to Revenue and/or Expense	$	(415)
11			
12	REFERENCE/SUPPORTING SCHEDULES		
13	Staff Adjustment No. 7, Schedule CSB-14		
14			
15			
16			
17			
18			
19			
20			

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 10

Exhibit
Schedule C-2
Page 11
Witness: Bourassa

Miscellaneous Expense

Line No.			
1			
2			
3			
4	WW Division bank fees recorded on Water Division's books	$	6,354
5			
6			
7			
8	Increase (decrease) in Miscellaneous Expense	$	(6,354)
9			
10			
11	Adjustment to Revenue and/or Expense	$	(6,354)
12			
13	REFERENCE/SUPPORTING SCHEDULES		
14	RUCO Adjustment No. 6, Schedule RBM-15		
15			
16			
17			
18			
19			
20			

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 15

Exhibit
Rebuttal Schedule C-2
Page 12
Witness: Bourassa

Interest Synchronization

Line No.			
1			
2			
3			
4	Fair Value Rate Base	$ 9,073,324	
5	Weighted Cost of Debt	1.50%	
6	Interest Expense		$ 136,349
7			
8	Test Year Interest Expense		$ 203,041
9			
10	Increase (decrease) in Interest Expense		(66,693)
11			
12			
13			
14	Adjustment to Revenue and/or Expense		$ 66,693
15			
16			
17	Weighted Cost of Debt Computation		
18			Weighted
19		Amount / Percent	Cost / Cost
20	Debt	$ 8,370,000 35.36%	4.25% 1.50%
21	Equity	$ 15,301,736 64.64%	10.50% 6.79%
22	Total	$ 23,671,736 100.00%	8.29%
23			
24			
25			
26			
27			
28			
29			
30			

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Adjustment to Revenues and/or Expenses
Adjustment Number 16

Exhibit
Rebuttal Schedule C-2
Page 13
Witness: Bourassa

Line No.			Test Year Adjusted Results	Adjusted with Rate Increase
1	Income Tax Computation			
2				
3				
4				
5				
6	Revenue		$ 1,977,627	$ 2,691,108
7	Operating Expenses Excluding Income Taxes		1,695,851	1,705,406
8	Synchronized Interest		136,349	136,349
9				
10	Income Before Taxes		$ 145,428	$ 849,353
11				
12	Arizona Income Before Taxes		$ 145,428	$ 849,353
13				
14	Less: Effective Arizona Income Tax		$ 6,433	$ 37,573
15	Rate =	4.4237% [1]		
16				
17				
18				
19				
20	Federal Income Before Taxes		$ 145,428	$ 849,353
21				
22	Less Arizona Income Taxes		$ 6,433	$ 37,573
23				
24	Federal Taxable Income		$ 138,994	$ 811,780
25				
26				
27				
28	FEDERAL INCOME TAXES:			
29	Effective Federal Tax Rate =	24.1383% [1]	$ 33,551	$ 195,950
30				
31				
32				
33				
34				
35	Federal Income Taxes		$ 33,551	$ 195,950
36				
37				
38	Total Income Tax		$ 39,984	$ 233,523
39				
40	Overall Tax Rate		27.49%	27.49%
41				
42	Income Tax		$ 39,984	$ 233,523
43	Test Year Income tax Expense		(27,157)	39,984
44	Adjustment to Income Tax Expense		$ 67,141	$ 193,538
45				
46				
47	[1] See work papers/testimony			

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Computation of Gross Revenue Conversion Factor

Exhibit
Rebuttal Schedule C-3
Page 1
Witness: Bourassa

Line No.	Description	Percentage of Incremental Gross Revenues
1	Combined Federal and State Effective Income Tax Rate	27.494%
2		
3	Property Taxes	0.971%
4		
5		
6	Total Tax Percentage	28.465%
7		
8	Operating Income % = 100% - Tax Percentage	71.535%
9		
10		
11		
12		
13	1 = Gross Revenue Conversion Factor	
14	Operating Income %	1.3979
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25	SUPPORTING SCHEDULES:	RECAP SCHEDULES:
26	C-3, page 2	A-1
27		
28		
29		
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39		
40		

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010

Exhibit
Rebuttal Schedule C-3
Page 2
Witness: Bourassa

GROSS REVENUE CONVERSION FACTOR

Line No.	Description	(A)	(B)	(C)	(D)	[E]	[F]
	Calculation of Gross Revenue Conversion Factor:						
1	Revenue	100.0000%					
2	Uncollecible Factor (Line 11)	0.0000%					
3	Revenues (L1 - L2)	100.0000%					
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	28.4652%					
5	Subtotal (L3 - L4)	71.5348%					
6	**Revenue Conversion Factor (L1 / L5)**	1.397921					
	Calculation of Uncollectible Factor:						
7	Unity	100.0000%					
8	Combined Federal and State Tax Rate (Line 17)	27.4942%					
9	One Minus Combined Income Tax Rate (L7 - L8)	72.5058%					
10	Uncollectible Rate	0.0000%					
11	Uncollectible Factor (L9 * L10)		0.0000%				
	Calculation of Effective Tax Rate:						
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%					
13	Arizona State Income Tax Rate	4.4237%					
14	Federal Taxable Income (L12 - L13)	95.5763%					
15	Applicable Federal Income Tax Rate (Line 54)	24.1383%					
16	Effective Federal Income Tax Rate (L14 x L15)	23.0705%					
17	Combined Federal and State Income Tax Rate (L13 +L16)		27.4942%				
	Calculation of Effective Property Tax Factor						
18	Unity	100.0000%					
19	Combined Federal and State Income Tax Rate (L17)	27.4942%					
20	One Minus Combined Income Tax Rate (L18-L19)	72.5058%					
21	Property Tax Factor	1.3392%					
22	Effective Property Tax Factor (L20*L21)		0.9710%				
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			28.4652%			
24	Required Operating Income	$ 752,179					
25	AdjustedTest Year Operating Income (Loss)	$ 241,792					
26	Required Increase in Operating Income (L24 - L25)		$ 510,386				
27	Income Taxes on Recommended Revenue (Col. (E), L52)	$ 233,523					
28	Income Taxes on Test Year Revenue (Col. (F), L52)	$ 39,984					
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		$ 193,539				
30	Recommended Revenue Requirement	$ 2,691,108					
31	Uncollectible Rate (Line 10)	0.0000%					
32	Uncollectible Expense on Recommended Revenue (L30 * L31)	$ -					
33	Adjusted Test Year Uncollectible Expense	$ -					
34	Required Increase in Revenue to Provide for Uncollectible Exp.		$ -				
35	Property Tax with Recommended Revenue	$ 86,746					
36	Property Tax on Test Year Revenue	$ 77,191					
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		$ 9,555				
38	Total Required Increase in Revenue (L26 + L29 + L37)		$ 713,480				

		(A)	(B)	(C)	(D)	[E]	[F]
		Test Year			Company Recommended		
		Total			Total		
	Calculation of Income Tax:	Pima UtilityCompany - Water Division			Pima UtilityCompany - Water Division		
39	Revenue	$ 1,977,627	$ 1,977,627		$ 2,691,108	$ 2,691,108	
40	Operating Expenses Excluding Income Taxes	$ 1,695,851	$ 1,695,851		$ 1,705,406	$ 1,705,406	
41	Synchronized Interest (L58)	$ 136,349	$ 136,349	$ -	$ 136,349	$ 136,349	
42	Arizona Taxable Income (L39 - L40 - L41)	$ 145,428	$ 145,428	$ -	$ 849,354	$ 849,354	$ -
43	Arizona State Effective Income Tax Rate (see work papers)	4.4237%	4.4237%	4.4237%	4.4237%	4.4237%	4.4237%
44	Arizona Income Tax (L42 x L43)	$ 6,433	$ 6,433	$ -	$ 37,573	$ 37,573	$ -
45	Federal Taxable Income (L42 - L44)	$ 138,994	$ 138,994	$ -	$ 811,781	$ 811,781	$ -
46	Effective Tax Rate (see work papers)	24.1383%	24.1383%		24.1383%	24.1383%	
47	Federal Income Tax (L45 x L46)	$ 33,551	$ 33,551		$ 195,950	$ 195,950	
48		$ -			$ -		
49		$ -			$ -		
50		$ -			$ -		
51	Total Federal Income Tax	$ 33,551	$ 33,551	$ -	$ 195,950	$ 195,950	$ -
52	Combined Federal and State Income Tax (L35 + L42)	$ 39,984	$ 39,984	$ -	$ 233,523	$ 233,523	$ -

53	COMBINED Applicable Federal Income Tax Rate [Col. [D], L51 - Col. [A], L51] / [Col. [D], L45 - Col. [A], L45]	24.1383%	
54	WATER Applicable Federal Income Tax Rate [Col. [E], L51 - Col. [B], L51] / [Col. [E], L45 - Col. [B], L45]		24.1383%
55			

	Calculation of Interest Synchronization:		N/A
56	Rate Base	$ 9,073,324	$ -
57	Weighted Average Cost of Debt	1.5027%	0.0000%
58	Synchronized Interest (L56 x L57)	$ 136,349	$ -

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Cost of Service Study, Using Commodity Demand Method
Operating Margins at Present Rates

Exhibit
Rebuttal Schedule G-1
Page 1
Witness: Bourassa

Line No.	Meter Size->	Totals	Meter Size 5/8" x 3/4"	3/4"	1"	1 1/2"	2"	Irrigation
1	Water Revenues	$ 1,983,814	$ 1,300,343	$ 1,819	$ 145,542	$ 10,567	$ 208,085	$ 317,458
2	Revenue Annualizations	(6,142)	(807)	-	1,735	(127)	381	(7,324)
3	Misc. Revenues[1]	7,261	6,988	3	190	8	69	3
4	Reconcilation H-1 to C-1[1]	(7,306)	(7,031)	(3)	(191)	(8)	(70)	(3)
5	Total Revenues	$ 1,977,628	$ 1,299,493	$ 1,819	$ 147,276	$ 10,440	$ 208,466	$ 310,134
6								
7	Operating Expenses[2]	$ 951,340	$ 685,896	$ 584	$ 44,011	$ 3,210	$ 30,868	$ 186,771
8	Depreciation and							
9	Amortization[2]	667,320	554,518	343	30,939	2,263	33,453	45,805
10	Property Tax[3]	77,191	50,722	71	5,748	408	8,137	12,105
11	Income Tax[4]	39,984	(30,256)	208	16,748	1,148	35,885	16,252
12	Total Operating Expenses	$ 1,735,835	$ 1,260,879	$ 1,207	$ 97,446	$ 7,028	$ 108,342	$ 260,934
13	Operating Income	$ 241,793	$ 38,614	$ 613	$ 49,830	$ 3,413	$ 100,124	$ 49,200
14	Interest Expense[5]	136,349	118,404	65	5,662	386	5,491	6,341
15	Net Income	$ 105,444	$ (79,790)	$ 548	$ 44,167	$ 3,027	$ 94,633	$ 42,859
16	Rate Base[6]	$ 9,073,324	$ 7,879,209	$ 4,305	$ 376,811	$ 25,673	$ 365,381	$ 421,945
17	Return on Rate Base[7]	2.66%	0.49%	14.23%	13.22%	13.29%	27.40%	11.66%
18								
19	**Percent of Total Customers**		96.24%	0.04%	2.62%	0.11%	0.95%	0.04%
20								
21								

22 [1] Allocated based on customer counts.
23 [2] Operating Expenses and Depreciation computations are shown on Schedule G-4, Page 1.
24 [3] Property Taxes allocation based on Revenues
25 [4] Income Tax from Schedule C-1, at Present Rates. Income Taxes allocated based on taxable income
26 [5] Interest Synchronized Interest Expense. Allocation based on Rate Base
27 [6] Rate Base computations are shown on Schedule G-3, Page 1
28 [7] Operating Income Divided by Rate Base
29
30

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Cost of Service Study, Using Commodity Demand Method
Operating Margins at Proposed Rates

Exhibit
Rebuttal Schedule G-2
Page 1
Witness: Bourassa

Line No.	Meter Size->	Totals	Meter Size 5/8" x 3/4"	3/4"	1"	1 1/2"	2"	Irrigation
1	Water Revenues	$ 2,689,474	$ 1,702,990	$ 2,753	$ 196,411	$ 14,276	$ 292,965	$ 480,079
2	Revenue Annualizations	(5,835)	(1,095)	-	2,277	(159)	466	(7,324)
3	Misc. Revenues[1]	7,261	6,988	3	190	8	69	3
4	Reconcilation H-1 to C-1[1]	207	199	0	5	0	2	0
5	Total Revenues	$ 2,691,108	$ 1,709,083	$ 2,756	$ 198,884	$ 14,125	$ 293,502	$ 472,758
6								
7	Operating Expenses[2]	$ 951,340	$ 685,896	$ 584	$ 44,011	$ 3,210	$ 30,868	$ 186,771
8	Depreciation and							
9	Amortization[2]	667,320	554,518	343	30,939	2,263	33,453	45,805
10	Property Tax[3]	86,746	55,091	89	6,411	455	9,461	15,239
11	Income Tax[4]	233,523	81,156	460	30,755	2,148	58,901	60,103
12	Total Operating Expenses	$ 1,938,929	$ 1,376,661	$ 1,477	$ 112,116	$ 8,075	$ 132,682	$ 307,918
13	Operating Income	$ 752,179	$ 332,423	$ 1,279	$ 86,768	$ 6,049	$ 160,820	$ 164,840
14	Interest Expense[5]	136,349	118,404	65	5,662	386	5,491	6,341
15	Net Income	$ 615,830	$ 214,019	$ 1,214	$ 81,106	$ 5,664	$ 155,329	$ 158,499
16	Rate Base[6]	$ 9,073,324	$ 7,879,209	$ 4,305	$ 376,811	$ 25,673	$ 365,381	$ 421,945
17	Return on Rate Base[7]	8.29%	4.22%	29.70%	23.03%	23.56%	44.01%	39.07%
18								
19	**Percent of Total Customers**		96.241%	0.039%	2.621%	0.108%	0.952%	0.039%
20								
21								

22 [1] Allocated based on customer counts.
23 [2] Operating Expenses and Depreciation computations are shown on Schedule G-4, Page 1.
24 [3] Property Taxes allocation based on Revenues
25 [4] Income Tax from Schedule C-1, at Proposed Rates. Income Taxes allocated based on taxable income
26 [5] Interest Synchronized Interest Expense. Allocation based on Rate Base
27 [6] Rate Base computations are shown on Schedule G-3, Page 1
28 [7] Operating Income Divided by Rate Base
29

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Cost of Service Study Using Commodity / Demand Method
Allocation of Assets to Customer Classes

Exhibit
Rebuttal Schedule G-3
Page 1
Witness: Bourassa

Line No.		Totals	5/8 x 3/4"	3/4"	1"	1 1/2"	2"	Irrigation	Totals
1	Plant, Minus Accumulated Depreciation, Advances and Contributions in Aid, Meter Deposits, and Deferred Income Tax (from Schedule G-5, Page 1)								
2	Commodity	$ 583,630	$ 258,397	$ 508	$ 31,823	$ 2,476	$ 15,009	$ 275,417	$ 583,630
3	Demand	3,322,710	2,768,101	1,694	188,445	15,527	219,077	129,865	3,322,710
4	Customer	741,926	714,035	291	19,444	801	7,064	291	741,926
5	Service	3,863,548	3,670,225	1,497	111,174	5,089	67,723	7,840	3,863,548
6	Meter	561,511	468,451	314	25,924	1,780	56,509	8,532	561,511
7	Totals	$ 9,073,324	$ 7,879,209	$ 4,305	$ 376,811	$ 25,673	$ 365,381	$ 421,945	$ 9,073,324
8									
9									-
10	Net Rate Base	$ 9,073,324	$ 7,879,209	$ 4,305	$ 376,811	$ 25,673	$ 365,381	$ 421,945	$ 9,073,324
11									
12	Allocation %	100.00%	86.84%	0.05%	4.15%	0.28%	4.03%	4.65%	100.00%
13									

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Cost of Service Study, Using Commodity Demand Method
Allocation of Expenses to Customer Classes

Exhibit
Rebuttal Schedule G-4
Page 1
Witness: Bourassa

Line No.		Totals	5/8 x 3/4"	3/4"	1"	1 1/2"	2"	Irrigation
	Operation and Maintenance Expense (from Schedule G-6, Page 1)							
1	Commodity	$ 372,366	$ 164,862	$ 324	$ 20,304	$ 1,579	$ 9,576	$ 175,721
2	Demand	279,722	233,032	143	15,864	1,307	18,443	10,933
3	Customer	299,252	288,002	117	7,843	323	2,849	117
4	Service	-	-	-	-	-	-	-
5	Meter	-	-	-	-	-	-	-
6	Totals	$ 951,340	$ 685,896	$ 584	$ 44,011	$ 3,210	$ 30,868	$ 186,771
7								
8	Depreciaton Expense on Plant (from Schedule G-6, Page 2)							
9	Commodity	67,834	30,033	59	3,699	288	1,744	32,011
10	Demand	314,354	261,884	160	17,828	1,469	20,726	12,286
11	Customer	50,892	48,979	20	1,334	55	485	20
12	Service	157,337	149,464	61	4,527	207	2,758	319
13	Meter	76,903	64,158	43	3,551	244	7,739	1,169
14	Totals	$ 667,320	$ 554,518	$ 343	$ 30,939	$ 2,263	$ 33,453	$ 45,805
15								
16								
17	Total Expenses (excluding Income Tax and							
18	Property Taxes)	$ 1,618,660	$ 1,240,413	$ 928	$ 74,950	$ 5,472	$ 64,321	$ 232,576
19								
20	Property Taxes, Allocated on Schedules G-1 & G-2	$ 77,191						
21	Income Tax, Allocated on Schedules G-1 & G-2	39,984						
22	Total Adjusted TY Expenses	**$ 1,735,835**						
23								

Exhibit
Rebuttal Schedule G-4
Page 2
Witness: Bourassa

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Cost of Service Study, Using Commodity Demand Method
Summary of Allocation of Expenses to Customer Classes

Line No.		Totals	5/8 x 3/4"	3/4"	1"	1 1/2"	2"	Irrigation
1	Commodity	$ 440,200	$ 164,862	$ 324	$ 20,304	$ 1,579	$ 9,576	$ 175,721
2	Demand	594,076	494,916	303	33,693	2,776	39,169	23,219
3	Customer	350,144	336,981	137	9,176	378	3,334	137
4	Service	157,337	149,464	61	4,527	207	2,758	319
5	Meter	76,903	64,158	43	3,551	244	7,739	1,169
6								
7								
8	Totals	$ 1,618,660	$ 1,210,381	$ 869	$ 71,251	$ 5,185	$ 62,576	$ 200,565
9								
10								
11								
12								
13	Total Expenses (excluding Income Tax and							
14	Property Taxes)	**$ 1,618,660**	$ 1,210,381	$ 869	$ 71,251	$ 5,185	$ 62,576	$ 200,565
15								
16	Property Taxes, Allocated on Schedules G-1 & G-2	$ 77,191						
17	Income Tax, Allocated on Schedules G-1 & G-2	39,984						
18	Total Adjusted TY Expenses	**$ 1,735,835**						
19								

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Cost of Service Study, Using Commodity Demand Method
Allocation of Rate Base by Function

Exhibit
Rebuttal Schedule G-5
Page 1
Witness: Bourassa

Line No.		Adjusted	Demand	Commodity	Customer	Meter	Service	Totals
1	**Rate Base**							
2	Plant minus (Accumulated Depreciation	$ 9,073,324	$ 3,322,710	$ 583,630	$ 741,926	$ 561,511	$ 3,863,548	$ 9,073,324
3	Contributions in Aid of Construction							
4	Advances in Aid of Construction,							
5	Meter Deposits and Deferred Income Tax)							
6								
7								
8								
9		9,073,324	3,322,710	583,630	741,926	561,511	3,863,548	9,073,324
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Allocation of Plant, Less Contributions and Advances in Aid of
Construction , Meter Deposits and Accumulated Depreciation to Functions

Exhibit
Rebuttal Schedule G-5
Page 2
Witness: Bourassa

Line No.	Account No.	Description	Original Cost Plant	Accumulated Depreciation	Total Net Plant Values	Demand	Commodity	Customer	Meter	Service
1	**Intangible**									
2	301	Organization	$ -		$ -					
3	302	Franchises	-		-					
4										
5	**Subtotal Intangible**		-		-	-	-	-	-	-
6										
7	**Source of Supply & Pumping Plant**									
8	303	Land and Land Rights	$ 97,637		$ 97,637	$ 97,637	$ -	$ -	$ -	$ -
9	304	Structures and Improvements	315,125	139,450	175,676	175,676	-	-		
10	305	Collecting and Impounding Res.	-	-	-	-				
11	306	Lakes, Rivers, Other Intakes	-	-	-					
12	307	Wells and Springs	610,601	261,499	349,102	279,281	69,820	-		
13	308	Infiltration Galleries and Tunnels	-	-	-					
14	309	Supply Mains	-	-	-	-	-			
15	310	Power Generation Equipment	-	-	-	-	-			
16	311	Electric Pumping Equipment	2,269,738	370,078	1,899,660	1,519,728	379,932			
17	**Subtotal Source of Supply & Pumping Plant**		$ 3,293,101	$ 771,027	$ 2,522,074	$ 2,072,322	$ 449,752	$ -	$ -	$ -
18										
19	**Water Treatment**									
20	320.2	Water Treat. Equip. - Chem Sol Feeder	$ 58,255	$ 9,890	$ 48,365	$ 38,692	$ 9,673			
21	**Subtotal Water Treatment**		$ 58,255	$ 9,890	$ 48,365	$ 38,692	$ 9,673	$ -	$ -	$ -
22										
23	**Transmission and Distribution Plant**									
24	330	Distribution Reservoirs & Standpipe	$ -	$ -	$ -	$ -	$ -			
25	330.1	Storage tanks	1,102,197	490,208	611,989	550,790	61,199			
26	330.2	Pressure Tanks	73,937	24,279	49,658	44,692	4,966			
27	331	Transmission and Distribution Mains	2,916,048	1,625,867	1,290,182	1,161,164	129,018			
28	333	Services	4,724,840	861,292	3,863,548					3,863,548
29	334	Meters	923,202	361,692	561,511				561,511	
30	335	Hydrants	887,381	550,134	337,246			337,246		
31	336	Backflow Prevention Devices	-	-	-	-	-			
32	339	Other Plant and Miscellaneous Equip.	-	-	-	-	-			
33	**Subtotal Transmission and Distribution Plant**		$ 10,627,605	$ 3,913,472	$ 6,714,134	$ 1,756,646	$ 195,183	$ 337,246	$ 561,511	$ 3,863,548
34										
35	**General Plant**									
36	340	Office Furniture and Fixtures	$ 4,239	$ 110	$ 4,129			$ 4,129		
37	340.1	Computers and Software	28,479	278	28,201			28,201		
38	341	Transportation Equipment	61,635	(51,073)	112,708	28,177		84,531		
39	342	Stores Equipment	-	-	-					
40	343	Tools and Work Equipment	134,506	34,251	100,255	25,064		75,191		
41	344	Laboratory Equipment	-	-	-					
42	345	Power Operated Equipment	124,899	34,114	90,785			90,785		
43	346	Communications Equipment	238,939	76,482	162,457	40,614		121,843		
44										

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Allocation of Plant, Less Contributions and Advances in Aid of
Construction , Meter Deposits and Accumulated Depreciation to Functions

Exhibit
Rebuttal Schedule G-5
Page 2.1
Witness: Bourassa

Line No.	Account No.	Description	Original Cost Plant	Accumulated Depreciation	Total Net Plant Values	Demand	Commodity	Customer	Meter	Service
1	**General Plant Continued**					-		-		
2	347	Miscellaneous Equipment	-	-	-			-		
3	348	Other Tangible Plant	-	-	-			-		
4	**Subtotal General Plant**		$ 592,698	$ 94,163	$ 498,535	$ 93,855	$ -	$ 404,680	$ -	$ -
5	Total Plant		$ 14,571,659	$ 4,788,552	$ 9,783,107	$ 3,961,514	$ 654,608	$ 741,926	$ 561,511	$ 3,863,548
6										
7	Contributions in Aid of Construction, Net		(709,783)		(709,783)	(638,805)	(70,978)	-		
8	Advances in Aid of Construction		0		0	0	0			
9	Meter Deposits		-		-				-	
10			-		-	-	-			
11			-		-			-		
12			-		-			-		
13	Totals		$ 13,861,876	$ 4,788,552	$ 9,073,324	$ 3,322,710	$ 583,630	$ 741,926	$ 561,511	$ 3,863,548
14	Rate Bases (Plant -(AIAC, CIAC, Meter Deposits & Accum. Depr.)				$ 9,073,324	$ 3,322,710	$ 583,630	$ 741,926	$ 561,511	$ 3,863,548

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Cost of Service Study, Using Commodity Demand Method
Allocation of Expenses to Functions

Exhibit
Rebuttal Schedule G-6
Page 1
Witness: Bourassa

Line No.	Description	Adjusted	Demand	Commodity	Customer	Meter	Service	Totals
1	Salaries and Wages[1]	$ 220,827	$88,330.68	$44,165.34	$88,330.68	$ -	$ -	$ 220,826.69
2	Salaries and Wages - Officers & Dir[1]	40,198	16,079	8,040	16,079	-	-	40,198
3	Employee Pensions and Benefits[1]	64,900	25,960	12,980	25,960	-	-	64,900
4	Purchased Water[1]	-		-				-
5	Purchased Power[1]	252,453	-	252,453	-	-	-	252,453
6	Chemicals[1]	16,721	-	16,721	-	-	-	16,721
7	Repairs and Maintenance[1]	71,396	49,977	21,419	-	-	-	71,396
8	Office Supplies and Expense	66,861			66,861			66,861
9	Outside Services - Acctng & Eng.	4,448	1,779	890	1,779	-	-	4,448
10	Outside Services - Other[1]	54,382	21,753	10,876	21,753	-	-	54,382
11	Outside Services - Legal	14,175	5,670	2,835	5,670	-	-	14,175
12	Water Testing[1]	8,925	7,140	1,785	-	-	-	8,925
13	Rents - Equipment	3,203	801	-	2,402	-	-	3,203
14	Transportation Expenses[1]	44,637	11,159	-	33,478	-	-	44,637
15	Insurance - Vehicle	17,464	4,366	-	13,098	-	-	17,464
16	Insurance - General Liability	10,840	5,420		5,420			10,840
17	Insurance - Worker's Comp	1,009	404	202	404	-	-	1,009
18	Reg. Comm. Exp.	3,671			3,671			3,671
19	Reg. Comm. Exp. - Rate Case	-	-		-			-
20	Miscellaneous Expense	9,580			9,580			9,580
21	Bad Debt Expense	4,766			4,766			4,766
22	Depreciation Expense[2]	667,320	314,354	67,834	50,892	76,903	157,337	667,320
23	Taxes Other Than Income	40,883	40,883					40,883
24	Property Taxes, Allocated on Schedules G-1 & G-2	**77,191**						
25	Income Tax, Allocated on Schedules G-1 & G-2	**39,984**						
26								
27	Total	$ 1,735,835	$ 594,076	$ 440,200	$ 350,144	$ 76,903	$ 157,337	**$ 1,618,660**
28								
29								
30	[1] See Schedule G-7, page 2.1.							
31	[2] Depreciation allocation computed on Schedule G-6, Page 2.							
32								
33								
34								

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Allocation of Depreciation Expense to Functions

Exhibit
Rebuttal Schedule G-6
Page 2.0
Witness: Bourassa

Line No.	Account No.	Description	Original Cost	Depreciation Rate	Depreciation Expense	Total Depr. Expense	Demand	Commodity	Customer	Meter	Service
1	**Intangible**										
2	301	Organization	$ -		$ -						
3	302	Franchises	-		-						
4											
5	**Subtotal Intangible**		$ -		$ -	$ -	$ -	$ -	$ -	$ -	$ -
6											
7		**Source of Supply & Pumping Plant**									
8	303	Land and Land Rights	$ 97,637	0.000%	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	304	Structures and Improvements	315,125	3.330%	10,494	10,494	10,494	-			
10	305	Collecting and Impounding Res.	-	2.500%	-	-	-				
11	306	Lakes, Rivers, Other Intakes	-	2.500%	-	-					
12	307	Wells and Springs	610,601	3.330%	20,333	20,333	16,266	4,067			
13	308	Infiltration Galleries and Tunnels	-	6.670%	-	-					
14	309	Supply Mains	-	2.000%	-	-	-	-			
15	310	Power Generation Equipment	-	5.000%	-	-	-	-			
16	311	Electric Pumping Equipment	2,269,738	12.500%	283,717	283,717	226,974	56,743			
17	**Subtotal Source of Supply & Pumping Plant**		$ 3,293,101		$ 314,544	$ 314,544	$ 253,734	$ 60,810	$ -	$ -	$ -
18											
19	**Water Treatment**										
20	320.2	Water Treat. Equip. - Chem Sol Feeder	58,255	20.000%	11,651	11,651	9,321	2,330			
21	**Subtotal Water Treatment**		$ 58,255		$ 11,651	$ 11,651	$ 9,321	$ 2,330	$ -	$ -	$ -
22											
23	**Transmission and Distribution Plant**										
24	330	Distribution Reservoirs & Standpipe	$ -		$ -	$ -	$ -	$ -	$ -	$ -	$ -
25	330.1	Storage tanks	1,102,197	2.220%	24,469	24,469	22,022	2,447	-	-	-
26	330.2	Pressure Tanks	73,937	5.000%	3,697	3,697	3,327	370	-	-	-
27	331	Transmission and Distribution Mains	2,916,048	2.000%	58,321	58,321	52,489	5,832			
28	333	Services	4,724,840	3.330%	157,337	157,337					157,337
29	334	Meters	923,202	8.330%	76,903	76,903				76,903	
30	335	Hydrants	887,381	2.000%	17,748	17,748			17,748		
31	336	Backflow Prevention Devices	-	6.670%	-	-	-	-			
32	339	Other Plant and Miscellaneous Equipment	-	6.670%	-	-	-	-			
33	**Subtotal Transmission and Distribution Plant**		$ 10,627,605		$ 338,474	$ 338,474	$ 77,838	$ 8,649	$ 17,748	$ 76,903	$ 157,337
34											
35	**General Plant**										
36	340	Office Furniture and Fixtures	$ 4,239	6.670%	$ 283	$ 283	$ -	$ -	$ 283	$ -	$ -
37	340.1	Computers and Software	28,479	20.000%	5,696	5,696	-	-	5,696	-	-
38	341	Transportation Equipment	61,635	20.000%	12,327	12,327	3,082		9,245		
39	342	Stores Equipment	-	4.000%	-	-			-		
40	343	Tools and Work Equipment	134,506	5.000%	6,725	6,725	6,053	673			
41	344	Laboratory Equipment	-	10.000%	-	-	-	-			
42	345	Power Operated Equipment	124,899	5.000%	6,245	6,245	5,620	624			
43	346	Communications Equipment	238,939	10.000%	23,894	23,894	5,973	-	17,920		

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Allocation of Depreciation Expense to Functions

Exhibit
Rebuttal Schedule G-6
Page 2.1
Witness: Bourassa

Line No.	Account No.	Description	Original Cost	Depreciatior Rate	Depreciation Expense	Total Depr. Expense	Demand	Commodity	Customer	Meter	Service
1	**General Plant Continued**										
2	347	Miscellaneous Equipment	-	10.00%	-	-			-		
3	348	Other Tangible Plant	-	10.00%	-	-	-				
4	**Subtotal General Plant**		$ 592,698		$ 55,170	$ 55,170	$ 20,728	$ 1,297	$ 33,144	$ -	$ -
5	**Total Plant**		$ 14,571,659		$ 719,839	$ 719,839	$ 361,621	$ 73,086	$ 50,892	$ 76,903	$ 157,337
6											
7											
8	Less: Amortization of Contributions										
9		Composite	$ 1,056,007	4.9733%	$ (52,519)	$ (52,519)	$ (47,267)	$ (5,252)			
10					-	-	-	-			
11											
12											
13											
14	Total Depreciation Expense		1,056,007		$ 667,320	$ 667,320	$ 314,354	$ 67,834	$ 50,892	$ 76,903	$ 157,337
15											
16											
17											
18											
19											

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Summary of Commodity - Demand Method Functions Factors

Exhibit
Rebuttal Schedule G-7
Page 1
Witness: Bourassa

Line No.	Description	5/8" x 3/4"	3/4"	1"	1 1/2"	2"	4"	6"	8"	Irrigation	Totals
1											
2	Description	5/8" x 3/4"	3/4"	1"	1 1/2"	2"	4"	6"	8"	Irrigation	Totals
3	Commodity	44.274%	0.087%	5.453%	0.424%	2.572%	0.000%	0.000%	0.000%	47.19%	100.00%
4	Demand	83.309%	0.051%	5.671%	0.467%	6.593%	0.000%	0.000%	0.000%	3.91%	100.00%
5	Customer	96.241%	0.039%	2.621%	0.108%	0.952%	0.000%	0.000%	0.000%	0.04%	100.00%
6	Services	94.996%	0.039%	2.877%	0.132%	1.753%	0.000%	0.000%	0.000%	0.20%	100.00%
7	Meters	83.427%	0.056%	4.617%	0.317%	10.064%	0.000%	0.000%	0.000%	1.52%	100.00%
8											
9											
10											
11											
12	SUPPORTING SCHEDULES										
13	G-7, page 3										

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
COMMODITY - DEMAND METHOD FUNCTION FACTORS
Plant and Depreciation Expense Allocations Functions

Exhibit
Rebuttal Schedule G-7
Page 2
Witness: Bourassa

Line No.	Description	Total	Demand	Commodity	Customer
1					
2					
3	Wells	1.00	0.80	0.20	
4	Pumps & Equipment	1.00	0.80	0.20	
5	Trans. & Dist. Mains	1.00	0.90	0.10	
6	Structures & Improv.	1.00	1.00		
7	Land	1.00	1.00		
8	Customer	1.00			1.00
9	Services	1.00			1.00
10	Meters	1.00			1.00
11	Fire Hydrants	1.00			1.00
12	Transportation Equip.	1.00	0.25		0.75
13	Office Furniture	1.00			1.00
14	Communication Equip.	1.00	0.25		0.75
15	Water Treatment Equip.	1.00	0.10	0.90	
16					
17					
18					
19					
20					

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Cost of Service Study, Using Commodity Demand Method
Development Of Expense Allocation Factors

Exhibit
Rebuttal Schedule G-7
Page 2.1
Witness: Bourassa

Line No.	Expense Type	Total	Demand	Commodity	Customer	Meters	Services
1							
2	Repairs and Maintenance[1]	1.00	0.70	0.30	-	-	-
3	Contractual Services[2]	1.00	0.40	0.20	0.40	-	-
4	Purchased Power/Fuel for Power Prod.[3]	1.00	-	1.00	-	-	-
5	Purchased Water[4]	1.00	-	1.00	-	-	-
6	Transportation[5]	1.00	0.25	-	0.75	-	-
7	Chemicals[6]	1.00	-	1.00	-	-	-
8	Water Testing[7]	1.00	0.80	0.20	-	-	-
9	Salaries and Wages[8]	1.00	0.40	0.20	0.40	-	-
10							
11							
12							

13 [1] Estimated based on examination of costs in repairs and maintenance and professional judgement.
14 [2] Estimated based on examination of costs included in contractual services and professional judgement.
15 [3] 100% related to pumping and water production.
16 [4] 100% related to pumping and water production.
17 [5] Based on allocation of transportation equipment. See G-7, page 2.
18 [6] 100% related to water production.
19 [7] Based on allocation of well plant and equipment. See G-7, page 2.
20 [8] The Company does not have recorded salaries and wages expense. See allocation of contractual services.
21
22
23
24
25

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Cost of Service Study, Using Commodity Demand Method
Development of Class Allocation Factors

Exhibit
Rebuttal Schedule G-7
Page 3
Witness: Bourassa

COMMODITY ALLOCATION FACTOR

Meter Size	(a) Total Gallons (in 1,000's) In Test Year	Percent of Total
5/8" x 3/4"	768,141	44.27%
3/4"	1,511	0.09%
1"	94,602	5.45%
1-1/2"	7,359	0.42%
2"	44,617	2.57%
3"	-	0.00%
4"	-	0.00%
6"	-	0.00%
8"	-	0.000%
Irrigation	818,738	47.190%
Totals	1,734,968	100.00%

DEMAND ALLOCATION FACTOR

Meter Size	Number of Meters and/or Services	Equivalent Weight	Equivalent Number of Meters and/or Services	Percent of Total
5/8" x 3/4"	9,805	1.0	9,805	83.31%
3/4"	4	1.5	6	0.05%
1"	267	2.5	668	5.67%
1-1/2"	11	5.0	55	0.47%
2"	97	8.0	776	6.59%
3"	-	16.0	0	0.00%
4"	-	25.0	0	0.00%
6"	-	50.0	0	0.00%
8"	-	80.0	0	0.00%
Irrigation	4	115.0	460	3.91%
Totals	10,188		11,770	100.00%

CUSTOMER ALLOCATION FACTOR

Meter Size	Number of Meters	Percent of Total
5/8" x 3/4"	9,805	96.24%
3/4"	4	0.04%
1"	267	2.62%
1-1/2"	11	0.11%
2"	97	0.95%
3"	-	0.00%
4"	-	0.00%
6"	-	0.00%
8"	-	0.00%
Irrigation	4	0.04%
Totals	10,188	100.00%

SERVICES ALLOCATION FACTOR (b)

Meter Size	Number of Services	Installation Cost	Weighted Number Services	Percent of Total
5/8" x 3/4"	9,805	$ 445.00	4,363,225	95.00%
3/4"	4	445.00	1,780	0.04%
1"	267	495.00	132,165	2.88%
1-1/2"	11	550.00	6,050	0.13%
2"	97	830.00	80,510	1.75%
3"	0	1,165.00	0	0.00%
4"	0	1,670.00	0	0.00%
6"	0	2,330.00	0	0.00%
8"	0	2,330.00	0	0.00%
Irrigation	4	2,330.00	9,320	0.20%
Totals	10,188		4,593,050	100.00%

METER ALLOCATION FACTOR (b)

Meter Size	Number of Meters	Meter Cost	Weighted Dollars of Meters	Percent of Total
5/8" x 3/4"	9,805	$ 155.00	1,519,775	83.43%
3/4"	4	255.00	1,020	0.06%
1"	267	315.00	84,105	4.62%
1-1/2"	11	525.00	5,775	0.32%
2"	97	1,890.00	183,330	10.06%
3"	0	2,545.00	0	0.00%
4"	0	3,645.00	0	0.00%
6"	0	6,920.00	0	0.00%
8"	0	6,920.00	0	0.00%
10"	4	6,920.00	27,680	1.52%
Totals	10,188		1,821,685	100.00%

(a) Includes customer and gallon sold annualization.
(b) Meter and Service Line cost from Arizona Corporation Commission Memo of February 21, 2008 from Marlin Scott, Jr.. Meter costs based on compound meters. Cost of service line and meter is based on costs allowed for a compound meter installation.

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Cost of Service Study Using Commodity / Demand Method
Computation of Monthly Minimums for Customer, Service, Meter
Using Function Costs and Expenses

Exhibit
Rebuttal Schedule G-8
Page 1
Witness: Bourassa

Line No.						Customer	Service	Meter
1	Return on Rate Base	8.29%				61,506	46,549	320,288
2	Misc. Revenues					199		
3	Customer, Services and Meter Expenses (From Sch. G-6. Page 1)					350,144	157,337	76,903
4	Property Taxes					86,746		
5	Income Taxes					233,523		
6	Total Revenue Requirement / Customer, Meter & Service (Line 13+15+16+17)					732,118	203,886	397,191
7								
8	**Customer Charge**							
9	Number of Bills =	10,188	times	12		122,256		
10								
11	**Charge per Bill**					$ 5.99		
12	(Customer Revenue Requirement divided by Annualized Number of Bills)							
13								
14	**Service Line and Meter Charge**							
15	Equivalent 5/8 Meters	11,770	times	12			141,234	141,234
16								
17	**Charge per Equivalent Meter**						$ 1.44	$ 2.81
18								
19								
20	**CUSTOMER CHARGE:**							
21	Monthly Minimum for 5/8 Inch Meter (with no water included in Minimum or Demand Charge)						$ 5.99	
22	Charge per Bill						1.44	
23	Charge per Equivalent Service Line						2.81	
24	Charge per Equivalent Meter							
25	(Service and Meter Revenue Requirement divided by Annual Equivalent Meters)							
26	Monthly Minimum for 5/8 Inch Meter, **WITHOUT** Demand Charge Included						$ 10.24	

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Cost of Service Study Using Commodity / Demand Method
Computation of Monthly Minimums for Demand Charge

Exhibit
Rebuttal Schedule G-8
Page 2
Witness: Bourassa

Line No.	DEMAND CHARGE:		
1			
2	Return on Rate Base 8.29%		275,453
3	Demand Expenses, from Schedule G-6, Page 1		594,076
4			
5	Totals		869,529
6	Total Revenue Requirement / Demand Component		
7	Equivalent Number of 5/8 Meters billings		141,234
8	Demand Charge for 5/8 Inch Meter		$ 6.16
9			
10		5/8" Demand	Meter	Demand
11	Demand Charge Per Equivalent	Charge	Ratio	Charge
12	5/8 Inch Meter	$ 6.16	1.0	$ 6.16
13	3/4 Inch Meter	$ 6.16	1.5	$ 9.23
14	1 Inch Meter	$ 6.16	2.5	$ 15.39
15	1 1/2 Inch Meter	$ 6.16	5.0	$ 30.78
16	2 Inch Meter	$ 6.16	8.0	$ 49.25
17	3 Inch Meter	$ 6.16	16.0	$ 98.51
18	4 Inch Meter	$ 6.16	25.0	$ 153.92
19	6 Inch Meter	$ 6.16	50.0	$ 307.83
20				
21				

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Cost of Service Study Using Commodity / Demand Method
Computation Demand Charge and Commodity

Exhibit
Rebuttal Schedule G-8
Page 3
Witness: Bourassa

Line No.			Commodity	Customer	Service	Meter	Demand
1	Return on Rate Base	8.29%	48,383	61,506	320,288	46,549	275,453
2	Less: Miscellaneous Revenues			(7,261)			
3							
4	Expenses (From Sch. G-6. Page 1)		440,200	350,144	157,337	76,903	594,076
5	Property taxes			86,746			
6	Income Taxes			233,523			
7	Total Revenue Requirement by function		488,583	724,657	477,625	123,452	869,529
8	Gallons Sold (in 1,000's)(Zero Gallons in Minimum) (G-7, page 3)		1,734,968				
9	Computed Commodity Rate (line 7 divided by line 8)		**$ 0.2816**				
10	Annualized Number of Bills (from G-8, page 1)			122,256			
11	Equivalent Meters and Service Lines (from G-8, page 1)				141,234	141,234	141,234
12	Customer Charge (line 7 divided by line 10)			$ 5.93			
13	Meter, Service Line & Demand Charge (Line 7 divided by Line 11)				$ 3.38	$ 0.87	$ 6.16
14	Total Monthly Minimum Charge for a 5/8 Inch Meter (Sum of Customer						
15	Service Line, Meter and Demand Charge on Lines 23 & Line 24)						$ 16.34
16							
17							

	Monthly Minimum	5/8" Monthly Minimum	Meter Ratio	Demand Charge
19	5/8 Inch Meter	$ 16.34	1.0	$ 16.34
20	3/4 Inch Meter	$ 16.34	1.5	$ 24.51
21	1 Inch Meter	$ 16.34	2.5	$ 40.85
22	1 1/2 Inch Meter	$ 16.34	5.0	$ 81.70
23	2 Inch Meter	$ 16.34	8.0	$ 130.72
24	3 Inch Meter	$ 16.34	16.0	$ 261.44
25	4 Inch Meter	$ 16.34	25.0	$ 408.50
26	6 Inch Meter	$ 16.34	50.0	$ 817.00
27	8 Inch Meter	$ 16.34	80.0	$ 1,307.19

28
29
30
31

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Cost of Service Study Using Commodity / Demand Method
Computation Demand Charge and Commodity

Exhibit
Rebuttal Schedule G-8
Page 4
Witness: Bourassa

Line No.		Total Rev. Req.	%	Portion of Rev. Req.	
1	**Single Tier Rate Design with Some Customer and Demand Costs recovered via the Commodity Rate**				
2					
3	Revenue Requirements Collected via Commodity Charge				
4					
5					
6	Customer, Service, and Meter Costs	$ 1,325,734	45%	$ 596,580	
7	Demand Costs	869,529	45%	391,288	
8	Commodity Costs	488,583	100%	488,583	
9	Total Costs to be Collected via Commodity			$ 1,476,452	
10	Gallons Sold (in 1,000's)(Zero Gallons in Minimum) (G-7, page 3)			1,734,968	
11					
12	Commodity Charge (per 1,000 gallons) (Line 9 divided by line 10)			$ 0.851	
13					
14	Revenue Requirement Collected				
15					
16	Monthly Minimum 5/8 Meter				
17	Total Revenue Requirement			$ 2,683,847	
18	Less: Portion of Revenue Requirement Collected via Commodity Charge			(1,476,452)	
19	Balance to be Recovered through Monthly Minimum			$ 1,207,395	44.99%
20					
21	Number of Equivalent 5/8 Inch Meter Billings (from G-8, page 1)			141,234	
22					
23	Computed Monthly Minimum 5/8 Inch Meter Equivalent (line 19 divided by line 21)			$ 8.55	
24					
25					
26		5/8"	Meter	Monthly	
27	Meter Size	Minimum	Ratio	Minimum	
28	5/8 Inch Meter	$ 8.55	1.0	$ 8.55	
29	3/4 Inch Meter	$ 8.55	1.5	$ 12.82	
30	1 Inch Meter	$ 8.55	2.5	$ 21.37	
31	1 1/2 Inch Meter	$ 8.55	5.0	$ 42.74	
32	2 Inch Meter	$ 8.55	8.0	$ 68.39	
33	3 Inch Meter	$ 8.55	16.0	$ 136.78	
34	4 Inch Meter	$ 8.55	25.0	$ 213.72	
35	6 Inch Meter	$ 8.55	50.0	$ 427.44	
36	8 Inch Meter	$ 8.55	80.0	$ 683.91	
37	10 Inch Meter				
38					

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Comparison of Proposed Rates to Computed Costs
For a 5/8 Inch Residential Meter (With Required Operating Margin)

Exhibit
Rebuttal Schedule G-9
Page 1
Witness: Bourassa

Column Number-->		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) (Col. 2 - Col. 8)
		Revenues								Total Revenues minus Total Charges & Costs
Line No.	Water Usage	Monthly Minimum	Commodity	Total	Demand Charges	Customer Charges	Service Line Charges	Meter Charges	Commodity Charges	Total Charges & Costs
1	0	$ 6.75	$ -	$ 6.75	$ 6.16	$ 5.93	$ 3.38	$ 0.87	0	$ 16.34	$ (9.59)
2	1,000	6.75	0.93	7.68	6.16	5.93	3.38	0.87	0.282	16.62	(8.94)
3	2,000	6.75	1.86	8.61	6.16	5.93	3.38	0.87	0.563	16.90	(8.30)
4	3,000	6.75	2.78	9.53	6.16	5.93	3.38	0.87	0.845	17.18	(7.65)
5	4,000	6.75	3.71	10.46	6.16	5.93	3.38	0.87	1.126	17.47	(7.00)
6	5,000	6.75	4.99	11.74	6.16	5.93	3.38	0.87	1.408	17.75	(6.01)
7	6,000	6.75	6.27	13.02	6.16	5.93	3.38	0.87	1.690	18.03	(5.01)
8	7,000	6.75	7.55	14.30	6.16	5.93	3.38	0.87	1.971	18.31	(4.01)
9	8,000	6.75	8.83	15.57	6.16	5.93	3.38	0.87	2.253	18.59	(3.02)
10	9,000	6.75	10.10	16.85	6.16	5.93	3.38	0.87	2.534	18.87	(2.02)
11	10,000	6.75	11.38	18.13	6.16	5.93	3.38	0.87	2.816	19.16	(1.03)
12	12,000	6.75	14.74	21.49	6.16	5.93	3.38	0.87	3.379	19.72	1.77
13	14,000	6.75	18.09	24.84	6.16	5.93	3.38	0.87	3.943	20.28	4.56
14	16,000	6.75	21.45	28.20	6.16	5.93	3.38	0.87	4.506	20.85	7.35
15	18,000	6.75	24.81	31.56	6.16	5.93	3.38	0.87	5.069	21.41	10.15
16	20,000	6.75	28.16	34.91	6.16	5.93	3.38	0.87	5.632	21.97	12.94
17	25,000	6.75	36.56	43.30	6.16	5.93	3.38	0.87	7.040	23.38	19.92
18	30,000	6.75	44.95	51.70	6.16	5.93	3.38	0.87	8.448	24.79	26.91
19	35,000	6.75	53.34	60.09	6.16	5.93	3.38	0.87	9.856	26.20	33.89
20	40,000	6.75	61.73	68.48	6.16	5.93	3.38	0.87	11.264	27.60	40.87
21	45,000	6.75	70.12	76.87	6.16	5.93	3.38	0.87	12.672	29.01	47.86
22	50,000	6.75	78.51	85.26	6.16	5.93	3.38	0.87	14.080	30.42	54.84
23	60,000	6.75	95.29	102.04	6.16	5.93	3.38	0.87	16.897	33.24	68.81
24	70,000	6.75	112.07	118.82	6.16	5.93	3.38	0.87	19.713	36.05	82.77
25	80,000	6.75	128.86	135.61	6.16	5.93	3.38	0.87	22.529	38.87	96.74
26	90,000	6.75	145.64	152.39	6.16	5.93	3.38	0.87	25.345	41.68	110.70
27	100,000	6.75	162.42	169.17	6.16	5.93	3.38	0.87	28.161	44.50	124.67

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Comparison of Proposed Rates to Computed Costs
For a 3/4 Inch Commercial Meter (With Required Operating Margin)

Exhibit
Rebuttal Schedule G-9
Page 2
Witness: Bourassa

Column Number-->		(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Revenues									(Col. 2 - Col. 8) Total Revenues minus Total Charges & Costs
Line No.	Water Usage	Monthly Minimum	Commodity	Total	Demand Charges	Customer Charges	Service Line Charges	Meter Charges	Commodity Charges	Total Charges & Costs	
1	0	$ 6.75	$ -	$ 6.75	$ 9.23	$ 8.89	$ 5.07	$ 1.31	0	$ 24.51	$ (17.76)
2	1,000	6.75	1.28	8.03	9.23	8.89	5.07	1.31	0.282	24.79	(16.76)
3	2,000	6.75	2.56	9.31	9.23	8.89	5.07	1.31	0.563	25.07	(15.77)
4	3,000	6.75	3.83	10.58	9.23	8.89	5.07	1.31	0.845	25.35	(14.77)
5	4,000	6.75	5.11	11.86	9.23	8.89	5.07	1.31	1.126	25.64	(13.77)
6	5,000	6.75	6.39	13.14	9.23	8.89	5.07	1.31	1.408	25.92	(12.78)
7	6,000	6.75	7.67	14.42	9.23	8.89	5.07	1.31	1.690	26.20	(11.78)
8	7,000	6.75	8.95	15.70	9.23	8.89	5.07	1.31	1.971	26.48	(10.78)
9	8,000	6.75	10.23	16.97	9.23	8.89	5.07	1.31	2.253	26.76	(9.79)
10	9,000	6.75	11.50	18.25	9.23	8.89	5.07	1.31	2.534	27.04	(8.79)
11	10,000	6.75	12.78	19.53	9.23	8.89	5.07	1.31	2.816	27.33	(7.80)
12	12,000	6.75	16.14	22.89	9.23	8.89	5.07	1.31	3.379	27.89	(5.00)
13	14,000	6.75	19.49	26.24	9.23	8.89	5.07	1.31	3.943	28.45	(2.21)
14	16,000	6.75	22.85	29.60	9.23	8.89	5.07	1.31	4.506	29.02	0.58
15	18,000	6.75	26.21	32.96	9.23	8.89	5.07	1.31	5.069	29.58	3.38
16	20,000	6.75	29.56	36.31	9.23	8.89	5.07	1.31	5.632	30.14	6.17
17	25,000	6.75	37.96	44.70	9.23	8.89	5.07	1.31	7.040	31.55	13.15
18	30,000	6.75	46.35	53.10	9.23	8.89	5.07	1.31	8.448	32.96	20.14
19	35,000	6.75	54.74	61.49	9.23	8.89	5.07	1.31	9.856	34.37	27.12
20	40,000	6.75	63.13	69.88	9.23	8.89	5.07	1.31	11.264	35.77	34.10
21	45,000	6.75	71.52	78.27	9.23	8.89	5.07	1.31	12.672	37.18	41.09
22	50,000	6.75	79.91	86.66	9.23	8.89	5.07	1.31	14.080	38.59	48.07
23	60,000	6.75	96.69	103.44	9.23	8.89	5.07	1.31	16.897	41.41	62.04
24	70,000	6.75	113.47	120.22	9.23	8.89	5.07	1.31	19.713	44.22	76.00
25	80,000	6.75	130.26	137.01	9.23	8.89	5.07	1.31	22.529	47.04	89.97
26	90,000	6.75	147.04	153.79	9.23	8.89	5.07	1.31	25.345	49.85	103.93
27	100,000	6.75	163.82	170.57	9.23	8.89	5.07	1.31	28.161	52.67	117.90

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Comparison of Proposed Rates to Computed Costs
For a 1 Inch Residential Meter (With Required Operating Margin)

Exhibit
Rebuttal Schedule G-9
Page 3
Witness: Bourassa

Column Number-->		(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Revenues									(Col. 2 - Col. 8) Total Revenues minus Total Charges & Costs
Line No.	Water Usage	Monthly Minimum	Commodity	Total	Demand Charges	Customer Charges	Service Line Charges	Meter Charges	Commodity Charges	Total Charges & Costs	
1	0	$ 18.94	$ -	$ 18.94	$ 15.39	$ 14.82	$ 8.45	$ 2.19	0	$ 40.85	$ (21.91)
2	1,000	18.94	1.28	20.22	15.39	14.82	8.45	2.19	0.282	41.13	(20.91)
3	2,000	18.94	2.56	21.50	15.39	14.82	8.45	2.19	0.563	41.41	(19.91)
4	3,000	18.94	3.83	22.78	15.39	14.82	8.45	2.19	0.845	41.69	(18.92)
5	4,000	18.94	5.11	24.06	15.39	14.82	8.45	2.19	1.126	41.98	(17.92)
6	5,000	18.94	6.39	25.34	15.39	14.82	8.45	2.19	1.408	42.26	(16.92)
7	6,000	18.94	7.67	26.61	15.39	14.82	8.45	2.19	1.690	42.54	(15.93)
8	7,000	18.94	8.95	27.89	15.39	14.82	8.45	2.19	1.971	42.82	(14.93)
9	8,000	18.94	10.23	29.17	15.39	14.82	8.45	2.19	2.253	43.10	(13.93)
10	9,000	18.94	11.50	30.45	15.39	14.82	8.45	2.19	2.534	43.38	(12.94)
11	10,000	18.94	12.78	31.73	15.39	14.82	8.45	2.19	2.816	43.67	(11.94)
12	12,000	18.94	15.34	34.28	15.39	14.82	8.45	2.19	3.379	44.23	(9.95)
13	14,000	18.94	17.89	36.84	15.39	14.82	8.45	2.19	3.943	44.79	(7.95)
14	16,000	18.94	20.45	39.40	15.39	14.82	8.45	2.19	4.506	45.36	(5.96)
15	18,000	18.94	23.01	41.95	15.39	14.82	8.45	2.19	5.069	45.92	(3.97)
16	20,000	18.94	25.56	44.51	15.39	14.82	8.45	2.19	5.632	46.48	(1.97)
17	25,000	18.94	31.96	50.90	15.39	14.82	8.45	2.19	7.040	47.89	3.01
18	30,000	18.94	40.35	59.29	15.39	14.82	8.45	2.19	8.448	49.30	9.99
19	35,000	18.94	48.74	67.68	15.39	14.82	8.45	2.19	9.856	50.71	16.98
20	40,000	18.94	57.13	76.07	15.39	14.82	8.45	2.19	11.264	52.11	23.96
21	45,000	18.94	65.52	84.46	15.39	14.82	8.45	2.19	12.672	53.52	30.94
22	50,000	18.94	73.91	92.85	15.39	14.82	8.45	2.19	14.080	54.93	37.92
23	60,000	18.94	90.69	109.64	15.39	14.82	8.45	2.19	16.897	57.75	51.89
24	70,000	18.94	107.47	126.42	15.39	14.82	8.45	2.19	19.713	60.56	65.86
25	80,000	18.94	124.26	143.20	15.39	14.82	8.45	2.19	22.529	63.38	79.82
26	90,000	18.94	141.04	159.98	15.39	14.82	8.45	2.19	25.345	66.19	93.79
27	100,000	18.94	157.82	176.77	15.39	14.82	8.45	2.19	28.161	69.01	107.75

Pima Utility Company - Water Division
Revenue Summary
Test Year Ended December 31, 2010

Exhibit
Rebuttal Schedule H-1
Page 1
Witness: Bourassa

Line No.	Meter Size	Classification	Total Revenues at Present Rates	Total Revenues at Proposed Rates	Dollar Change	Percent Change	Percent of Present Water Revenues	Percent of Proposed Water Revenues		
1	5/8x3/4 Inch	Residential	$ 1,274,912	$ 1,664,864	$ 389,952	30.59%	64.47%	61.87%		
2	1 Inch	Residential	116,781	156,268	39,486	33.81%	5.91%	5.81%		
3										
4	5/8x3/4 Inch	Commercial	$ 25,431	$ 38,127	$ 12,696	49.92%	1.29%	1.42%		
5	3/4 Inch	Commercial	1,819	2,753	934	51.33%	0.09%	0.10%		
6	1 Inch	Commercial	28,761	40,144	11,383	39.58%	1.45%	1.49%		
7	1 1/2 Inch	Commercial	10,567	14,276	3,709	35.10%	0.53%	0.53%		
8	2 Inch	Commercial	208,085	292,965	84,880	40.79%	10.52%	10.89%		
9										
10	Irrigation		310,134	472,755	162,622	52.44%	15.68%	17.57%		
11	Irrigation - recovered effluent		7,324	7,324	-	0.00%	0.37%	0.27%		
12										
13	**Subtotals of Revenues**		$ 1,983,814	$ 2,689,474	$ 705,660	35.57%	100.31%	99.94%	Additional	Additional
14	**Revenue Annualizations:**								Bills	Gallons
15	5/8x3/4 Inch	Residential	$ (464)	$ (586)	$ (121)	26.13%	-0.02%	-0.02%	(46)	(265,673)
16	1 Inch	Residential	1,345	1,750	405	30.09%	0.07%	0.07%	32	179,482
17										
18	5/8x3/4 Inch	Commercial	$ (343)	$ (509)	$ (166)	48.36%	-0.02%	-0.02%	(11)	(285,257)
19	3/4 Inch	Commercial	-	-	-	0.00%	0.00%	0.00%	0	-
20	1 Inch	Commercial	390	527	137	35.15%	0.02%	0.02%	6	286,139
21	1 1/2 Inch	Commercial	(127)	(159)	(32)	25.46%	-0.01%	-0.01%	(2)	(83,192)
22	2 Inch	Commercial	381	466	85	22.28%	0.02%	0.02%	5	244,063
23										
24	Irrigation - recovered effluent		(7,324)	(7,324)	-	0.00%	-0.37%	-0.27%	(12)	(21,544,200)
25	(belongs to Wastewater Division)									
26										
27	**Subtotal Revenue Annualization**		(6,142)	(5,835)	307	-5.00%	-0.31%	-0.30%	(28)	(21,468,639)
28										
29	**Total Revenues w/ Annualization**		$ 1,977,673	$ 2,683,640	$ 705,967	35.70%	100.00%	99.72%		
30	**Misc Revenues**		7,261	7,261	-	0.00%	0.37%	0.27%		
31	**Reconciling Amount**		(7,306)	207	7,513	-102.83%	-0.37%	0.01%		
32	**Total Revenues**		$ 1,977,628	$ 2,691,108	$ 713,480	36.08%	100.00%	100.00%		
33										
34										

Pima Utility Company - Water Division
Analysis of Revenue by Detailed Class
Test Year Ended December 31, 2010

Exhibit
Rebuttal Schedule H-2
Page 1
Witness: Bourassa

Line No.	Customer Classification and/or Meter Size		(a) Average Number of Customers at 12/31/2010	Average Consumption	Average Bill Present Rates	Average Bill Proposed Rates	Proposed Increase Dollar Amount	Proposed Increase Percent Amount	Percent of Customers
1	5/8x3/4 Inch	Residential	9,747	6,395	$ 10.66	$ 13.52	$ 2.86	26.82%	95.87%
2	1 Inch	Residential	220	28,258	44.00	56.37	12.37	28.11%	2.17%
3									
4	5/8x3/4 Inch	Commercial	63	27,442	$ 32.82	48.80	15.98	48.71%	0.62%
5	3/4 Inch	Commercial	4	31,484	37.18	55.59	18.40	49.49%	0.04%
6	1 Inch	Commercial	46	35,570	51.90	68.64	16.74	32.26%	0.45%
7	1 1/2 Inch	Commercial	11	55,541	78.46	98.07	19.61	24.99%	0.11%
8	2 Inch	Commercial	72	51,537	79.14	96.66	17.52	22.14%	0.71%
9									
10	Irrigation		4	15,854,381	$ 5,851.58	$ 8,919.91	$ 3,068.33	52.44%	0.04%
11									
12									
13									
14									
15									
16									
17									
18	Totals		10,167						100.00%
19									
20	Actual Year End Number								
21	of Customers:		10,188						
22									
23									
24									
25									

Pima Utility Company - Water Division
Analysis of Revenue by Detailed Class
Test Year Ended December 31, 2010

Exhibit
Rebuttal Schedule H-2
Page 2
Witness: Bourassa

Line No.	Customer Classification and/or Meter Size		(a) Average Number of Customers at 12/31/2010	Median Consumption	Median Bill Present Rates	Median Bill Proposed Rates	Proposed Increase Dollar Amount	Proposed Increase Percent Amount	Percent of Customers
1	5/8x3/4 Inch	Residential	9,747	4,500	$ 8.92	$ 11.10	$ 2.18	24.45%	95.87%
2	1 Inch	Residential	220	22,500	37.78	47.70	9.92	26.27%	2.17%
3									
4	5/8x3/4 Inch	Commercial	63	6,500	$ 10.76	$ 15.06	$ 4.30	39.94%	0.62%
5	3/4 Inch	Commercial	4	4,500	$ 8.92	$ 12.50	3.58	40.14%	0.04%
6	1 Inch	Commercial	46	11,000	$ 25.36	$ 33.00	7.64	30.14%	0.45%
7	1 1/2 Inch	Commercial	11	32,500	53.58	66.41	12.83	23.94%	0.11%
8	2 Inch	Commercial	72	65,000	93.68	113.87	20.19	21.55%	0.71%
9									
10	Irrigation		4	8,864,900	$ 3,335.36	$ 5,075.70	$ 1,740.33	52.18%	0.04%
11									
12									
13									
14									
15									
16									
17	Totals		10,167						100.00%
18									
19	Actual Year End Number								
20	of Customers:		10,188						
21									
22									
23									
24									

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Present and Proposed Rates

Exhibit
Rebuttal Schedule H-3
Page 1

Line No.	Monthly Usage Charge for:	Present Rates	Proposed Rates	Change	Percent Change
1	Meter Size (All Classes):				
2	5/8x3/4 Inch	$ 5.70	$ 6.75	$ 1.05	18.40%
2	3/4 Inch	5.70	6.75	1.05	18.40%
3	1 Inch	16.00	18.94	2.94	18.40%
4	1 1/2 Inch	21.00	24.86	3.86	18.40%
5	2 Inch	26.00	30.78	4.78	18.40%
6	3 Inch	40.00	47.36	7.36	18.40%
7	4 Inch	52.00	61.57	9.57	18.40%
8	6 Inch	100.00	118.40	18.40	18.40%
9					
10	Irrigation	180.00	200.00	20.00	11.11%
11					
12	Gallons In Minimum (All Classes, except irrigation)	1,000	-		
13					
14	Gallons In Minimum (Irrigation)	100,000	-		
15					

Line No.	Commodity Rates	Block	(Per 1,000 gallons) Present Rate	Proposed Rate
16				
17				
18				
19				
20	5/8x3/4 Inch (All Classes)	Over Minimum up to 10,000 gallons	$ 0.92	
21		Over 10,000 gallons	$ 1.08	
22				
23	5/8x3/4 Inch - Residential	1 gallons to 4,000 gallons		$ 0.93
24		4,001 gallons to 10,000 gallons		$ 1.28
25		over 10,000 gallons		$ 1.68
26				
27	5/8x3/4 Inch - Commercial	1 gallons to 10,000 gallons		$ 1.28
28		over 10,000 gallons		$ 1.68
29				
30	3/4 Inch Meter (All Classes)	Over Minimum up to 10,000 gallons	$ 0.92	
31		Over 10,000 gallons	$ 1.08	
32				
33	3/4 Inch Meter - Residential	1 gallons to 4,000 gallons		$ 0.93
34		4,001 gallons to 10,000 gallons		$ 1.28
35		over 10,000 gallons		$ 1.68
36				
37	3/4 Inch Meter - Commercial	1 gallons to 10,000 gallons		$ 0.93
38		over 10,000 gallons		$ 1.28
39				
40				
41	NT = No Tariff			
42				

Pima Utility Company - Water Division
Test Year Ended December 31, 2010
Present and Proposed Rates

Exhibit
Rebuttal Schedule H-3
Page 2

Line No.	Commodity Rates	Block	Present Rate (Per 1,000 gallons)	Proposed Rate (Per 1,000 gallons)
4	1 Inch Meter (All classes)	Over Minimum up to 10,000 gallons	$ 0.92	
5		Over 10,000 gallons	$ 1.08	
7	1 Inch Meter - Residential, Commercial	1 gallons to 25,000 gallons		$ 1.28
8		over 25,000 gallons		$ 1.68
10	1.5 Inch Meter (All classes, except irrigation)	Over Minimum up to 10,000 gallons	$ 0.92	
11		Over 10,000 gallons	$ 1.08	
13	1.5 Inch Meter - Residential, Commercial	1 gallons to 50,000 gallons		$ 1.28
14		over 50,000 gallons		$ 1.68
16	2 Inch Meter (All classes, except irrigation)	Over Minimum up to 10,000 gallons	$ 0.92	
17		Over 10,000 gallons	$ 1.08	
19	2 Inch Meter - Residential, Commercial	1 gallons to 80,000 gallons		$ 1.28
20		over 80,000 gallons		$ 1.68
22	3 Inch Meter (All classes, except irrigation)	Over Minimum up to 10,000 gallons	$ 0.92	
23		Over 10,000 gallons	$ 1.08	
25	3 Inch Meter - Residential, Commercial	1 gallons to 160,000 gallons		$ 1.28
26		over 160,000 gallons		$ 1.68
28	4 Inch Meter (All classes, except irrigation)	Over Minimum up to 10,000 gallons	$ 0.92	
29		Over 10,000 gallons	$ 1.08	
31	4 Inch Meter - Residential, Commercial	1 gallons to 250,000 gallons		$ 1.28
32		over 250,000 gallons		$ 1.68
34	6 Inch Meter (All classes, except irrigation)	Over Minimum up to 10,000 gallons	$ 0.92	
35		Over 10,000 gallons	$ 1.08	
37	6 Inch Meter - Residential, Commercial	1 gallons to 500,000 gallons		$ 1.28
38		over 500,000 gallons		$ 1.68
40	Irrigation (all meter sizes)	Over Minimum	$ 0.36	$ 0.55
42	Construction/Standpipe	All gallons	NT	$ 1.68

44 NT = No Tariff

Pima Utility Company - Water Division
Present and Proposed Rates
Test Year Ended December 31, 2010

Exhibit
Rebuttal Schedule H-3
Page 3
Witness: Bourassa

Meter and Service Line Charges[1]

	Present Service Line Charge	Present Meter Install-ation Charge	Total Present Charge	Proposed Service Line Charge	Proposed Meter Install-ation Charge	Total Proposed Charge
5/8 x 3/4 Inch			NT	$ 385.00	$ 135.00	$ 520.00
3/4 Inch			NT	415.00	205.00	620.00
1 Inch			NT	465.00	265.00	730.00
1 1/2 Inch			NT	520.00	475.00	995.00
2 Inch Turbo			NT	800.00	995.00	1,795.00
2 Inch, Compound			NT	800.00	1,840.00	2,640.00
3 Inch Turbo			NT	1,015.00	1,620.00	2,635.00
3 Inch, compound			NT	1,135.00	2,495.00	3,630.00
4 Inch Turbo			NT	1,430.00	2,570.00	4,000.00
4 Inch, compound			NT	1,610.00	3,545.00	5,155.00
6 Inch Turbo			NT	2,150.00	4,925.00	7,075.00
6 Inch, compound			NT	2,270.00	6,820.00	9,090.00

[1] Based on ACC Staff Engineering Memo dated Feburary 21, 2008
NT = No Tariff

Other Charges:

	Present	Proposed
Establishment	NT	$ 25.00
Reestablishment (within 12 months)	*	*
Reconnection (Deliquent)	NT	$ 25.00
Meter Test (if correct)	$ 20.00	$ 20.00
Meter Re-read (if correct)	$ 25.00	$ 25.00
Deposit	**	**
Deposit Interest	**	**
NSF Check	$ 15.00	$ 15.00
Deferred Payment, per month	1.5%	1.5%
Late Payment Fee (per month)	1.5%	1.5%
After hours service charge	NT	$ 50.00

* Number of months off the system times the monthly minimum.
** Per Rule R14-2-403.B

NT = No Tariff

Pima Utility Company - Water Division
Bill Comparison of Present and Proposed Rates
Customer Classification Residential 5/8x3/4 Inch Meter
Test Year Ended December 31, 2010
(Excludes all Revenue Related Taxes)

Exhibit
Schedule H-4
Page 1
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 5.70	$ 6.75	$ 1.05	18.40%
1,000	5.70	7.68	$ 1.98	34.68%
2,000	6.62	8.61	$ 1.99	29.99%
3,000	7.54	9.53	$ 1.99	26.44%
4,000	8.46	10.46	$ 2.00	23.66%
5,000	9.38	11.74	$ 2.36	25.16%
6,000	10.30	13.02	$ 2.72	26.39%
7,000	11.22	14.30	$ 3.08	27.42%
8,000	12.14	15.57	$ 3.43	28.29%
9,000	13.06	16.85	$ 3.79	29.04%
10,000	13.98	18.13	$ 4.15	29.69%
12,000	16.14	21.49	$ 5.35	33.13%
14,000	18.30	24.84	$ 6.54	35.76%
16,000	20.46	28.20	$ 7.74	37.83%
18,000	22.62	31.56	$ 8.94	39.51%
20,000	24.78	34.91	$ 10.13	40.89%
25,000	30.18	43.30	$ 13.12	43.49%
30,000	35.58	51.70	$ 16.12	45.29%
35,000	40.98	60.09	$ 19.11	46.62%
40,000	46.38	68.48	$ 22.10	47.64%
45,000	51.78	76.87	$ 25.09	48.45%
50,000	57.18	85.26	$ 28.08	49.11%
60,000	67.98	102.04	$ 34.06	50.11%
70,000	78.78	118.82	$ 40.04	50.83%
80,000	89.58	135.61	$ 46.03	51.38%
90,000	100.38	152.39	$ 52.01	51.81%
100,000	111.18	169.17	$ 57.99	52.16%
Average Usage				
6,395	$ 10.66	$ 13.52	$ 2.86	26.82%
Median Usage				
4,500	$ 8.92	$ 11.10	$ 2.18	24.45%

Present Rates:

Monthly Minimum:		$	5.70
Gallons in Minimum			1,000
Charge Per 1,000 Gallons			
Up to	10,000	$	0.92
Over	10,000	$	1.08

Proposed Rates:

Monthly Minimum:		$	6.75
Gallons in Minimum			-
Charge Per 1,000 Gallons			
Up to	4,000	$	0.93
Up to	10,000	$	1.28
Over	10,000	$	1.68

Pima Utility Company - Water Division
Bill Comparison of Present and Proposed Rates
Customer Classification Residential 1 Inch Meter
Test Year Ended December 31, 2010
(Excludes all Revenue Related Taxes)

Exhibit
Schedule H-4
Page 2
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 16.00	$ 18.94	$ 2.94	18.40%
1,000	16.00	20.22	$ 4.22	26.39%
2,000	16.92	21.50	$ 4.58	27.07%
3,000	17.84	22.78	$ 4.94	27.68%
4,000	18.76	24.06	$ 5.30	28.23%
5,000	19.68	25.34	$ 5.66	28.74%
6,000	20.60	26.61	$ 6.01	29.19%
7,000	21.52	27.89	$ 6.37	29.61%
8,000	22.44	29.17	$ 6.73	29.99%
9,000	23.36	30.45	$ 7.09	30.34%
10,000	24.28	31.73	$ 7.45	30.67%
12,000	26.44	34.28	$ 7.84	29.66%
14,000	28.60	36.84	$ 8.24	28.81%
16,000	30.76	39.40	$ 8.64	28.07%
18,000	32.92	41.95	$ 9.03	27.44%
20,000	35.08	44.51	$ 9.43	26.88%
25,000	40.48	50.90	$ 10.42	25.74%
30,000	45.88	59.29	$ 13.41	29.23%
35,000	51.28	67.68	$ 16.40	31.98%
40,000	56.68	76.07	$ 19.39	34.21%
45,000	62.08	84.46	$ 22.38	36.06%
50,000	67.48	92.85	$ 25.37	37.60%
60,000	78.28	109.64	$ 31.36	40.06%
70,000	89.08	126.42	$ 37.34	41.92%
80,000	99.88	143.20	$ 43.32	43.37%
90,000	110.68	159.98	$ 49.30	44.55%
100,000	121.48	176.77	$ 55.29	45.51%
Average Usage				
28,258	$ 44.00	$ 56.37	$ 12.37	28.11%
Median Usage				
22,500	$ 37.78	$ 47.70	$ 9.92	26.27%

Present Rates:

Monthly Minimum:		$	16.00
Gallons in Minimum			1,000
Charge Per 1,000 Gallons			
Up to	10,000	$	0.92
Over	10,000	$	1.08

Proposed Rates:

Monthly Minimum:		$	18.94
Gallons in Minimum			-
Charge Per 1,000 Gallons			
Up to	25,000	$	1.28
Over	25,000	$	1.68

Pima Utility Company - Water Division
Bill Comparison of Present and Proposed Rates
Customer Classification Commercial 5/8x3/4 Inch Meter
Test Year Ended December 31, 2010
(Excludes all Revenue Related Taxes)

Exhibit
Schedule H-4
Page 3
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 5.70	$ 6.75	$ 1.05	18.40%
1,000	5.70	8.03	$ 2.33	40.82%
2,000	6.62	9.31	$ 2.69	40.56%
3,000	7.54	10.58	$ 3.04	40.36%
4,000	8.46	11.86	$ 3.40	40.21%
5,000	9.38	13.14	$ 3.76	40.08%
6,000	10.30	14.42	$ 4.12	39.98%
7,000	11.22	15.70	$ 4.48	39.90%
8,000	12.14	16.97	$ 4.83	39.82%
9,000	13.06	18.25	$ 5.19	39.76%
10,000	13.98	19.53	$ 5.55	39.71%
12,000	16.14	22.89	$ 6.75	41.81%
14,000	18.30	26.24	$ 7.94	43.41%
16,000	20.46	29.60	$ 9.14	44.67%
18,000	22.62	32.96	$ 10.34	45.70%
20,000	24.78	36.31	$ 11.53	46.54%
25,000	30.18	44.70	$ 14.52	48.13%
30,000	35.58	53.10	$ 17.52	49.23%
35,000	40.98	61.49	$ 20.51	50.04%
40,000	46.38	69.88	$ 23.50	50.66%
45,000	51.78	78.27	$ 26.49	51.16%
50,000	57.18	86.66	$ 29.48	51.56%
60,000	67.98	103.44	$ 35.46	52.16%
70,000	78.78	120.22	$ 41.44	52.61%
80,000	89.58	137.01	$ 47.43	52.94%
90,000	100.38	153.79	$ 53.41	53.21%
100,000	111.18	170.57	$ 59.39	53.42%
Average Usage				
27,442	$ 32.82	$ 48.80	$ 15.98	48.71%
Median Usage				
6,500	$ 10.76	$ 15.06	$ 4.30	39.94%

Present Rates:

Monthly Minimum:		$	5.70
Gallons in Minimum			1,000
Charge Per 1,000 Gallons			
Up to	10,000	$	0.92
Over	10,000	$	1.08

Proposed Rates:

Monthly Minimum:		$	6.75
Gallons in Minimum			-
Charge Per 1,000 Gallons			
Up to	10,000	$	1.28
Over	10,000	$	1.68

Pima Utility Company - Water Division
Bill Comparison of Present and Proposed Rates
Customer Classification Commercial 3/4 Inch Meter
Test Year Ended December 31, 2010
(Excludes all Revenue Related Taxes)

Exhibit
Schedule H-4
Page 4
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 5.70	$ 6.75	$ 1.05	18.40%
1,000	5.70	8.03	$ 2.33	40.82%
2,000	6.62	9.31	$ 2.69	40.56%
3,000	7.54	10.58	$ 3.04	40.36%
4,000	8.46	11.86	$ 3.40	40.21%
5,000	9.38	13.14	$ 3.76	40.08%
6,000	10.30	14.42	$ 4.12	39.98%
7,000	11.22	15.70	$ 4.48	39.90%
8,000	12.14	16.97	$ 4.83	39.82%
9,000	13.06	18.25	$ 5.19	39.76%
10,000	13.98	19.53	$ 5.55	39.71%
12,000	16.14	22.89	$ 6.75	41.81%
14,000	18.30	26.24	$ 7.94	43.41%
16,000	20.46	29.60	$ 9.14	44.67%
18,000	22.62	32.96	$ 10.34	45.70%
20,000	24.78	36.31	$ 11.53	46.54%
25,000	30.18	44.70	$ 14.52	48.13%
30,000	35.58	53.10	$ 17.52	49.23%
35,000	40.98	61.49	$ 20.51	50.04%
40,000	46.38	69.88	$ 23.50	50.66%
45,000	51.78	78.27	$ 26.49	51.16%
50,000	57.18	86.66	$ 29.48	51.56%
60,000	67.98	103.44	$ 35.46	52.16%
70,000	78.78	120.22	$ 41.44	52.61%
80,000	89.58	137.01	$ 47.43	52.94%
90,000	100.38	153.79	$ 53.41	53.21%
100,000	111.18	170.57	$ 59.39	53.42%
Average Usage				
31,484	$ 37.18	$ 55.59	$ 18.40	49.49%
Median Usage				
4,500	$ 8.92	$ 12.50	$ 3.58	40.14%

Present Rates:

Monthly Minimum:		$	5.70
Gallons in Minimum			1,000
Charge Per 1,000 Gallons			
Up to	10,000	$	0.92
Over	10,000	$	1.08

Proposed Rates:

Monthly Minimum:		$	6.75
Gallons in Minimum			-
Charge Per 1,000 Gallons			
Up to	10,000	$	1.28
Over	10,000	$	1.68

Pima Utility Company - Water Division
Bill Comparison of Present and Proposed Rates
Customer Classification Commercial 1 Inch Meter
Test Year Ended December 31, 2010

Exhibit
Schedule H-4
Page 5
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 16.00	$ 18.94	$ 2.94	18.40%
1,000	16.00	20.22	$ 4.22	26.39%
2,000	16.92	21.50	$ 4.58	27.07%
3,000	17.84	22.78	$ 4.94	27.68%
4,000	18.76	24.06	$ 5.30	28.23%
5,000	19.68	25.34	$ 5.66	28.74%
6,000	20.60	26.61	$ 6.01	29.19%
7,000	21.52	27.89	$ 6.37	29.61%
8,000	22.44	29.17	$ 6.73	29.99%
9,000	23.36	30.45	$ 7.09	30.34%
10,000	24.28	31.73	$ 7.45	30.67%
12,000	26.44	34.28	$ 7.84	29.66%
14,000	28.60	36.84	$ 8.24	28.81%
16,000	30.76	39.40	$ 8.64	28.07%
18,000	32.92	41.95	$ 9.03	27.44%
20,000	35.08	44.51	$ 9.43	26.88%
25,000	40.48	50.90	$ 10.42	25.74%
30,000	45.88	59.29	$ 13.41	29.23%
35,000	51.28	67.68	$ 16.40	31.98%
40,000	56.68	76.07	$ 19.39	34.21%
45,000	62.08	84.46	$ 22.38	36.06%
50,000	67.48	92.85	$ 25.37	37.60%
60,000	78.28	109.64	$ 31.36	40.06%
70,000	89.08	126.42	$ 37.34	41.92%
80,000	99.88	143.20	$ 43.32	43.37%
90,000	110.68	159.98	$ 49.30	44.55%
100,000	121.48	176.77	$ 55.29	45.51%
Average Usage				
35,570	$ 51.90	$ 68.64	$ 16.74	32.26%
Median Usage				
11,000	$ 25.36	$ 33.00	$ 7.64	30.14%

Present Rates:			
Monthly Minimum:		$	16.00
Gallons in Minimum			1,000
Charge Per 1,000 Gallons			
Up to	10,000	$	0.92
Over	10,000	$	1.08

Proposed Rates:			
Monthly Minimum:		$	18.94
Gallons in Minimum			-
Charge Per 1,000 Gallons			
Up to	25,000	$	1.28
Over	25,000	$	1.68

Pima Utility Company - Water Division
Bill Comparison of Present and Proposed Rates
Customer Classification Commercial 1 1/2 Inch Meter
Test Year Ended December 31, 2010

Exhibit
Schedule H-4
Page 6
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 21.00	$ 24.86	$ 3.86	18.40%
1,000	21.00	26.14	$ 5.14	24.49%
2,000	21.92	27.42	$ 5.50	25.09%
3,000	22.84	28.70	$ 5.86	25.65%
4,000	23.76	29.98	$ 6.22	26.17%
5,000	24.68	31.26	$ 6.58	26.64%
6,000	25.60	32.53	$ 6.93	27.08%
7,000	26.52	33.81	$ 7.29	27.49%
8,000	27.44	35.09	$ 7.65	27.88%
9,000	28.36	36.37	$ 8.01	28.24%
10,000	29.28	37.65	$ 8.37	28.57%
12,000	31.44	40.20	$ 8.76	27.87%
14,000	33.60	42.76	$ 9.16	27.26%
16,000	35.76	45.32	$ 9.56	26.72%
18,000	37.92	47.87	$ 9.95	26.24%
20,000	40.08	50.43	$ 10.35	25.82%
25,000	45.48	56.82	$ 11.34	24.93%
30,000	50.88	63.21	$ 12.33	24.23%
35,000	56.28	69.60	$ 13.32	23.67%
40,000	61.68	75.99	$ 14.31	23.20%
45,000	67.08	82.38	$ 15.30	22.81%
50,000	72.48	88.77	$ 16.29	22.48%
60,000	83.28	105.56	$ 22.28	26.75%
70,000	94.08	122.34	$ 28.26	30.04%
80,000	104.88	139.12	$ 34.24	32.65%
90,000	115.68	155.90	$ 40.22	34.77%
100,000	126.48	172.69	$ 46.21	36.53%
Average Usage				
55,541	$ 78.46	$ 98.07	$ 19.61	24.99%
Median Usage				
32,500	$ 53.58	$ 66.41	$ 12.83	23.94%

Present Rates:
Monthly Minimum:
Gallons in Minimum
Charge Per 1,000 Gallons
Up to 10,000
Over 10,000

Proposed Rates:
Monthly Minimum:
Gallons in Minimum
Charge Per 1,000 Gallons
Up to 50,000
Over 50,000

Pima Utility Company - Water Division
Bill Comparison of Present and Proposed Rates
Customer Classification Commerical 2 Inch Meter
Test Year Ended December 31, 2010

Exhibit
Schedule H-4
Page 7
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 26.00	$ 30.78	$ 4.78	18.40%
1,000	26.00	32.06	$ 6.06	23.32%
2,000	26.92	33.34	$ 6.42	23.85%
3,000	27.84	34.62	$ 6.78	24.35%
4,000	28.76	35.90	$ 7.14	24.82%
5,000	29.68	37.18	$ 7.50	25.25%
6,000	30.60	38.45	$ 7.85	25.66%
7,000	31.52	39.73	$ 8.21	26.05%
8,000	32.44	41.01	$ 8.57	26.42%
9,000	33.36	42.29	$ 8.93	26.76%
10,000	34.28	43.57	$ 9.29	27.09%
12,000	36.44	46.12	$ 9.68	26.57%
14,000	38.60	48.68	$ 10.08	26.11%
16,000	40.76	51.24	$ 10.48	25.70%
18,000	42.92	53.79	$ 10.87	25.33%
20,000	45.08	56.35	$ 11.27	25.00%
25,000	50.48	62.74	$ 12.26	24.29%
30,000	55.88	69.13	$ 13.25	23.71%
35,000	61.28	75.52	$ 14.24	23.24%
40,000	66.68	81.91	$ 15.23	22.84%
45,000	72.08	88.30	$ 16.22	22.51%
50,000	77.48	94.69	$ 17.21	22.22%
60,000	88.28	107.48	$ 19.20	21.75%
70,000	99.08	120.26	$ 21.18	21.38%
80,000	109.88	133.04	$ 23.16	21.08%
90,000	120.68	149.82	$ 29.14	24.15%
100,000	131.48	166.61	$ 35.13	26.72%
Average Usage				
51,537	$ 79.14	$ 96.66	$ 17.52	22.14%
Median Usage				
65,000	$ 93.68	$ 113.87	$ 20.19	21.55%

Present Rates:

Monthly Minimum:		$	26.00
Gallons in Minimum			1,000
Charge Per 1,000 Gallons			
Up to	10,000	$	0.92
Over	10,000	$	1.08

Proposed Rates:

Monthly Minimum:		$	30.78
Gallons in Minimum			-
Charge Per 1,000 Gallons			
Up to	80,000	$	1.28
Over	80,000	$	1.68

Pima Utility Company - Water Division
Bill Comparison of Present and Proposed Rates
Customer Classification Irrigation
Test Year Ended December 31, 2010

Exhibit
Schedule H-4
Page 8
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 180.00	$ 200.00	$ 20.00	11.11%
10,000	180.00	205.50	$ 25.50	14.17%
20,000	180.00	211.00	$ 31.00	17.22%
30,000	180.00	216.50	$ 36.50	20.28%
40,000	180.00	222.00	$ 42.00	23.33%
50,000	180.00	227.50	$ 47.50	26.39%
100,000	180.00	255.00	$ 75.00	41.67%
150,000	198.00	282.50	$ 84.50	42.68%
200,000	216.00	310.00	$ 94.00	43.52%
250,000	234.00	337.50	$ 103.50	44.23%
300,000	252.00	365.00	$ 113.00	44.84%
350,000	270.00	392.50	$ 122.50	45.37%
400,000	288.00	420.00	$ 132.00	45.83%
450,000	306.00	447.50	$ 141.50	46.24%
500,000	324.00	475.00	$ 151.00	46.60%
1,000,000	504.00	750.00	$ 246.00	48.81%
1,500,000	684.00	1,025.00	$ 341.00	49.85%
2,000,000	864.00	1,300.00	$ 436.00	50.46%
2,500,000	1,044.00	1,575.00	$ 531.00	50.86%
3,000,000	1,224.00	1,850.00	$ 626.00	51.14%
3,500,000	1,404.00	2,125.00	$ 721.00	51.35%
4,000,000	1,584.00	2,400.00	$ 816.00	51.52%
4,500,000	1,764.00	2,675.00	$ 911.00	51.64%
5,000,000	1,944.00	2,950.00	$ 1,006.00	51.75%
10,000,000	3,744.00	5,700.00	$ 1,956.00	52.24%
15,000,000	5,544.00	8,450.00	$ 2,906.00	52.42%
20,000,000	7,344.00	11,200.00	$ 3,856.00	52.51%
Average Usage				
15,854,381	$ 5,851.58	$ 8,919.91	$ 3,068.33	52.44%
Median Usage				
8,864,900	$ 3,335.36	$ 5,075.70	$ 1,740.33	52.18%

Present Rates:

Monthly Minimum:	$	180.00
Gallons in Minimum		100,000
Charge Per 1,000 Gallons		
All Gallons	$	0.36

Proposed Rates:

Monthly Minimum:	$	200.00
Gallons in Minimum		-
Charge Per 1,000 Gallons		
All Gallons	$	0.55

Pima Utility Company

Wastewater Division Schedules

Schedules A through C and H

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Computation of Increase in Gross Revenue
Requirements As Adjusted

Exhibit
Rebuttal Schedule A-1
Page 1
Witness: Bourassa

Line No.			
1	Fair Value Rate Base	$	9,832,800
2			
3	Adjusted Operating Income		516,608
4			
5	Current Rate of Return		5.25%
6			
7	Required Operating Income	$	815,139
8			
9	Required Rate of Return on Fair Value Rate Base		8.29%
10			
11	Operating Income Deficiency	$	298,531
12			
13	Gross Revenue Conversion Factor		1.3979
14			
15	Increase in Gross Revenue		
16	Requirement	$	417,329
17			
18	Adjusted Test Year Revenues	$	3,096,775
19	Increase in Gross Revenue Revenue Requirement	$	417,329
20	Proposed Revenue Requirement	$	3,514,104
21	% Increase		13.48%

22						
23	**Customer**		**Present**	**Proposed**	**Dollar**	**Percent**
24	**Classification**		**Rates**	**Rates**	**Increase**	**Increase**
25	**(Residential Commercial, Irrigation)**					
26	5/8x3/4 Inch	Residential	$ 2,658,546	$ 3,037,389	$ 378,843	14.25%
27	1 Inch	Residential	145,477	166,208	20,730	14.25%
28						
29	5/8x3/4 Inch	Commercial	6,410	7,323	913	14.25%
30	3/4 Inch	Commercial	$ 1,272	$ 1,453	181	14.25%
31	1 Inch	Commercial	16,909	19,319	2,410	14.25%
32	1 1/2 Inch	Commercial	12,672	14,477	1,806	14.25%
33	2 Inch	Commercial	115,770	132,267	16,497	14.25%
34						
35	Effluent		121,512	118,009	(3,503)	-2.88%
36						
37	Revenue Annualization		13,363	12,840	(523)	-3.91%
38						
39	**Subtotal**		$ 3,091,931	$ 3,509,286	$ 417,355	13.50%
40						
41	Other Water Revenues		6,030	6,030	-	0.00%
42	Reconciling Amount		(1,186)	(1,212)	(26)	2.19%
43	Rounding				-	0.00%
44	**Total of Water Revenues**		$ 3,096,775	$ 3,514,104	$ 417,329	13.48%

45
46
47 SUPPORTING SCHEDULES:
48 B-1
49 C-1
50 C-3
51 H-1

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Summary of Rate Base

Exhibit
Rebuttal Schedule B-1
Page 1
Witness: Bourassa

Line No.		Original Cost Rate base	Fair Value Rate Base
1			
2	Gross Utility Plant in Service	$ 22,039,554	$ 22,039,554
3	Less: Accumulated Depreciation	11,503,741	11,503,741
4			
5	Net Utility Plant in Service	$ 10,535,813	$ 10,535,813
6			
7	Less:		
8	Advances in Aid of Construction	(0)	(0)
9			
10	Contributions in Aid of Construction	1,281,106	1,281,106
11			
12	Accumulated Amortization of CIAC	(578,093)	(578,093)
13			
14	Customer Meter Deposits	-	-
15	Deferred Income Taxes & Credits	-	-
16			
17			
18			
19	Plus:		
20			
21			
22	Prepayments	-	-
23	Materials and Supplies	-	-
24	Allowance for Cash Working Capital	-	-
25			
26	Total Rate Base	$ 9,832,800	$ 9,832,800
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41	SUPPORTING SCHEDULES:		
42	B-2		
43	B-3		
44	B-5		
45	E-1		
46			
47			
48			
49			
50			

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Original Cost Rate Base Proforma Adjustments

Exhibit
Rebuttal Schedule B-2
Page 1
Witness: Bourassa

Line No.		Actual at End of Test Year	Proforma Adjustment	Adjusted at end of Test Year
1	Gross Utility			
2	Plant in Service	$ 22,055,018	(15,465)	$ 22,039,554
3				
4	**Less:**			
5	Accumulated			
6	Depreciation	11,546,833	(43,092)	11,503,741
7				
8				
9	Net Utility Plant			
10	in Service	$ 10,508,186		$ 10,535,813
11				
12	**Less:**			
13	Advances in Aid of			
14	Construction	285,313	(285,313)	(0)
15				
16	Contributions in Aid of			
17	Construction - Gross	937,694	343,412	1,281,106
18				
19	Accumulated Amortization of CIAC	(578,093)	-	(578,093)
20				
21	Customer Meter Deposits	-		-
22	Accumulated Deferred Income Tax	-	-	-
23		-		-
24		-		-
25				
26	**Plus:**			
27				
28				
29	Prepayments	-		-
30	Materials and Supplies	-		-
31	Allowance for Cash Working Capital	-	-	-
32		-		-
33				
34	Total	$ 9,863,272		$ 9,832,800
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45	SUPPORTING SCHEDULES:		RECAP SCHEDULES:	
46	B-2, pages 2		B-1	
47	E-1			
48				
49				
50				

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Original Cost Rate Base Proforma Adjustments

Exhibit
Rebuttal Schedule B-2
Page 2
Witness: Bourassa

Line No.		Actual at End of Test Year	Proforma Adjustments 1 Plant-in-Service	2 Accumulated Depreciation	3 CIAC	4 Intentionally Left Blank	5 Intentionally Left Blank	Adjusted at end of Test Year
1	Gross Utility							
2	Plant in Service	$ 22,055,018	(15,465)					$ 22,039,554
3								
4	**Less:**							
5	Accumulated							
6	Depreciation	11,546,833		(43,092)				11,503,741
7								
8								
9	Net Utility Plant							
10	in Service	$ 10,508,186	$ (15,465)	$ 43,092	$ -	$ -	$ -	$ 10,535,813
11								
12	**Less:**							
13	Advances in Aid of							
14	Construction	285,313			(285,313)			(0)
15								
16	Contributions in Aid of							
17	Construction (CIAC)	937,694			343,412			1,281,106
18								
19	Accumulated Amort of CIAC	(578,093)						(578,093)
20								
21	Customer Meter Deposits	-						-
22	Accumulated Deferred Income Taxes	-						-
23								
24								
25	**Plus:**							
26								
27								
28	Prepayments	-						
29	Materials and Supplies	-						
30	Allowance for Cash Working Capital	-						-
31								
32	Total	$ 9,863,272	$ (15,465)	$ 43,092	$ (58,099)	$ -	$ -	$ 9,832,800
33								
34								
35								
36	SUPPORTING SCHEDULES:						RECAP SCHEDULES:	
37	B-2, pages 3-5						B-1	
38	E-1							
39								
40								

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Original Cost Rate Base Proforma Adjustments
Adjustment Number 1

Exhibit
Rebuttal Schedule B-2
Page 3
Witness: Bourassa

Plant-in-Service

Line No.	Acct. No.	Description	Direct Adjusted Orginal Cost	A Capitalized Expenses	B Prior Case Adjustments	Adjustments C Intentionally Left Blank	D Intentionally Left Blank	E Intentionally Left Blank	Rebuttal Adjusted Original Cost
6	351	Organization Cost	$ -						-
7	352	Franchise Cost	-						-
8	353	Land and Land Rights	91,528						91,528
9	354	Structures & Improvements	250,433						250,433
10	355	Power Generation Equipment	-						-
11	360	Collection Sewers - Force	97,523						97,523
12	361.1	Collection Sewers - Gravity	3,854,512						3,854,512
13	361.2	Manholes & Cleanouts	1,791,722						1,791,722
14	362	Special Collecting Structures	-						-
15	363	Servcies to Customers	632,249						632,249
16	364	Flow Measuring Devices	-						-
17	365	Flow Measuring Installations	-						-
18	366	Reuse Services	-						-
19	367	Reuse Meters and Meter Installations	-						-
20	370	Receiving Wells	226,251						226,251
21	371.1	Pumping Equipment - Lift Stations	1,544,146	9,179	(22,507)				1,530,818
22	371.2	Other Pumping Equipment	103,441						103,441
23	371.3	Pumping Equipment - Recharge Wells	1,436,200		(10,665)				1,425,535
24	374	Reuse Distribution Reserviors	-						-
25	375	Reuse Transmission and Distribution	137,444		(3,260)				134,184
26	380	Treatment & Disposal Equipment	9,884,071	13,212					9,897,283
27	381	Plant Sewers	-						-
28	382	Outfall Sewer Lines	-						-
29	389	Other Plant & Misc Equipment	972,509						972,509
30	390	Office Furniture & Equipment	6,529						6,529
31	390.1	Computers & Software	10,884						10,884
32	391	Transportation Equipment	21,830						21,830
33	392	Stores Equipment	-						-
34	393	Tools, Shop & Garage Equipment	156,200		(1,423)				154,777
35	394	Laboratory Equipment	1,993						1,993
36	395	Power Operated Equipment	0						0
37	396	Communication Equipment	118,828						118,828
38	397	Miscellaneous Equipment	-						-
39	398	Other Tangible Plant	-						-
40		Post-in-service AFUDC	716,722						716,722
41		TOTALS	$ 22,055,018	$ 22,391	$ (37,856)	$ -	$ -	$ -	$ 22,039,554
42									
43		Plant-in-Service per Direct							$ 22,055,018
44									
45		Increase (decrease) in Plant-in-Service							$ (15,465)
46									
47		Adjustment to Plant-in-Service							$ (15,465)
48									
49		SUPPORTING SCHEDULES							
50		B-2, pages 3.1 and 3.2							
51		B-2, pages 3.3 to 3.20							

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
B-2 Adjustment 1 - A
Capitalized Expenses

Exhibit
Rebuttal Schedule B-2
Page 3.1
Witness: Bourassa

Line No.	Plant Acct	Description		Amount
1	371.1	Pumping Equipment - Lift Stations	$	9,179
2	380	Treatment & Disposal Equipment		13,212
3				
4				
5		Total	$	22,391
6				
7				
8	Increase in Plant-in-Service		$	22,391
9				
10				
11				
12				
13				
14				
15				
16	Reference/Supporting Schedule			
17	Staff Rate Base Adjustment No. 2, Schedule CSB-4			
18				
19				
20				
21				
22				
23				
24				
25				

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
B-2 Adjustment 1 - B
Prior Rate Case Plant

Exhibit
Rebuttal Schedule B-2
Page 3.2
Witness: Bourassa

Line No.	Plant Acct	Description		Amount
1	371.1	Pumping Equipment - Lift Stations	$	(22,507)
2	371.3	Pumping Equipment - Recharge Wells		(10,665)
3	375	Reuse Transmission and Distribution		(3,260)
4	393	Tools, Shop & Garage Equipment		(1,423)
5				
6		Total	$	(37,856)
7				
8				
9	Increase in Plant-in-Service		$	(37,856)
10				
11				
12				
13				
14				
15				
16				
17	Reference/Supporting Schedule			
18	RUCO Rate Base Adjustment No. 1, Schedule TJC-3			
19				
20				
21				
22				
23				
24				
25				
26				

Pima Utility Company - Sewer Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.3
Witness: Jones/Bourassa

					Per Decision No. 62184 - January 5, 2000						Current Books		Allocate A/D
Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	Company Plant at 12/31/1997	Company Pro Forma Adjust	Adopted Staff Adjust	Adopted RUCO Adjust	Order Plant at 12/31/1997	Accum. Deprec. At 12/31/1997	G/L Plant at 12/31/1997	NARUC Plant at 12/31/1997	Accum. Deprec. At 12/31/1997
1	351	Organization Cost	0.00%	0.00%					-		-	-	-
2	352	Franchise Cost	0.00%	0.00%					-		-	-	-
3	353	Land and Land Rights	0.00%	0.00%	76,709				76,709		76,709	76,709	-
4	354	Structures & Improvements	3.00%	3.33%	4,326	(4,326)			-		-	-	-
5	355	Power Generation Equipment	3.00%	5.00%					-		-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%					-		-	-	-
7	361.1	Collection Sewers - Gravity	3.00%	2.00%	2,559,281	149,529	(149,529)		2,559,281		2,559,281	2,559,281	267,514
8	361.2	Manholes & Cleanouts	3.00%	2.00%	1,118,725				1,118,725		1,118,725	1,118,725	116,937
9	362	Special Collecting Structures	3.00%	2.00%					-		-	-	-
10	363	Servcies to Customers	3.00%	2.00%			149,529		149,529		149,529	149,529	15,630
11	364	Flow Measuring Devices	3.00%	10.00%					-		-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%					-		-	-	-
13	366	Reuse Services	3.00%	2.00%					-		-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%					-		-	-	-
15	370	Receiving Wells	3.00%	3.57%				226,251	226,251		-	226,251	23,649
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%	765,619		1,017		766,636		766,637	766,637	80,134
17	371.2	Other Pumping Equipment	3.00%	10.00%				100,000	100,000		-	100,000	10,453
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%					-		-	-	-
19	374	Reuse Distribution Reserviors	3.00%	2.50%					-		-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%	343,041			(326,251)	16,790		343,041	16,790	1,755
21	380	Treatment & Disposal Equipment	3.00%	5.00%	8,545,663	2,135			8,547,798		8,547,798	8,547,798	893,476
22	381	Plant Sewers	3.00%	5.00%					-		-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%					-		-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%					-		-	-	-
25	390	Office Furniture & Equipment	3.00%	6.67%					-		-	-	-
26	390.1	Computers & Software	3.00%	20.00%					-		-	-	-
27	391	Transportation Equipment	3.00%	20.00%				3,261	3,261		-	3,260	341
28	392	Stores Equipment	3.00%	4.00%					-		-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%	189,765		(5,612)	(3,261)	180,892		184,153	180,893	18,908
30	394	Laboratory Equipment	3.00%	10.00%					-		-	-	-
31	395	Power Operated Equipment	3.00%	5.00%					-		-	-	-
32	396	Communication Equipment	3.00%	10.00%					-		-	-	-
33	397	Miscellaneous Equipment	3.00%	10.00%					-		-	-	-
34	398	Other Tangible Plant	3.00%						-		-	-	-
35													
36		Sub Total			13,603,129	147,338	(4,595)	-	13,745,872	1,428,798	13,745,873	13,745,873	1,428,798
37													
38		Post-In Service AFUDC		4.52%	1,865,546		(1,148,824)	-	716,722	-	716,722	716,722	-
39													
40		TOTAL			15,468,675	147,338	(1,153,419)	-	14,462,594	1,428,798	14,462,595	14,462,595	1,428,798
41													
42		Depreciable Plant											
43		Composite Depreciation Rate											
44													
45		[1] Shaded cells are per Decision No. 62184. Other cells per Staff recommended depreciation rates.											
46													

Pima Utility Company - Sewer Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.4
Witness: Jones/Bourassa

					Sewer Plant Recorded on Water Books - Not Included in Decision 62184									
					1994									
Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%		-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%		-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%		-	-	-	-	-	-	-	-	-
4	354	Structures & Improvements	3.00%	3.33%		-	-	-	-	-	-	-	-	-
5	355	Power Generation Equipment	3.00%	5.00%		-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%		-	-	-	-	-	-	-	-	-
7	361.1	Collection Sewers - Gravity	3.00%	2.00%		-	-	-	-	-	-	-	-	-
8	361.2	Manholes & Cleanouts	3.00%	2.00%		-	-	-	-	-	-	-	-	-
9	362	Special Collecting Structures	3.00%	2.00%		-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%		-	-	-	-	-	-	-	-	-
11	364	Flow Measuring Devices	3.00%	10.00%		-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%		-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%		-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%		-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%		-	-	-	-	-	-	-	-	-
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%		-	-	-	-	-	-	-	-	-
17	371.2	Other Pumping Equipment	3.00%	10.00%		-	-	-	-	-	-	-	-	-
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%		-	-	-	-	-	-	-	-	-
19	374	Reuse Distribution Reserviors	3.00%	2.50%		-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%		-	-	-	-	-	-	-	-	-
21	380	Treatment & Disposal Equipment	3.00%	5.00%		-	-	-	-	-	-	-	-	-
22	381	Plant Sewers	3.00%	5.00%		-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%		-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%		-	-	-	-	-	-	-	-	-
25	390	Office Furniture & Equipment	3.00%	6.67%		-	-	-	-	-	-	-	-	-
26	390.1	Computers & Software	3.00%	20.00%		-	-	-	-	-	-	-	-	-
27	391	Transportation Equipment	3.00%	20.00%		-	-	-	-	-	-	-	-	-
28	392	Stores Equipment	3.00%	4.00%		-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%		-	-	-	-	-	-	-	-	-
30	394	Laboratory Equipment	3.00%	10.00%		-	-	-	-	-	-	-	-	-
31	395	Power Operated Equipment	3.00%	5.00%		-	-	-	-	-	-	-	-	-
32	396	Communication Equipment	3.00%	10.00%		-	-	-	-	-	-	-	-	-
33	397	Miscellaneous Equipment	3.00%	10.00%		-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%			-	-	-	-	-	-	-	-	-
35														
36		Sub Total			-	-	-	-	-	-	-	-	-	-
37														
38		Post-In Service AFUDC		4.52%										
39														
40		TOTAL			-	-	-	-	-	-	-	-	-	-
41														
42		Depreciable Plant												
43		Composite Depreciation Rate												
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Stat												
46														

Pima Utility Company - Sewer Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.5
Witness: Jones/Bourassa

					Sewer Plant Recorded on Water Books - Not Included in Decision 62184									
					1995									
Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%		-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%		-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%		-	-	-	-	-	-	-	-	-
4	354	Structures & Improvements	3.00%	3.33%		-	-	-	-	-	-	-	-	-
5	355	Power Generation Equipment	3.00%	5.00%		-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%		-	-	-	-	-	-	-	-	-
7	361.1	Collection Sewers - Gravity	3.00%	2.00%		-	-	-	-	-	-	-	-	-
8	361.2	Manholes & Cleanouts	3.00%	2.00%		-	-	-	-	-	-	-	-	-
9	362	Special Collecting Structures	3.00%	2.00%		-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%		-	-	-	-	-	-	-	-	-
11	364	Flow Measuring Devices	3.00%	10.00%		-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%		-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%		-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%		-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%		-	-	-	-	-	-	-	-	-
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%		-	-	-	-	-	-	-	-	-
17	371.2	Other Pumping Equipment	3.00%	10.00%		-	-	-	-	-	-	-	-	-
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%		-	-	-	-	-	-	-	-	-
19	374	Reuse Distribution Reserviors	3.00%	2.50%		-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%		-	-	-	-	-	-	-	-	-
21	380	Treatment & Disposal Equipment	3.00%	5.00%		-	-	-	-	-	-	-	-	-
22	381	Plant Sewers	3.00%	5.00%		-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%		-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%		-	-	-	-	-	-	-	-	-
25	390	Office Furniture & Equipment	3.00%	6.67%		-	-	-	-	-	-	-	-	-
26	390.1	Computers & Software	3.00%	20.00%		-	-	-	-	-	-	-	-	-
27	391	Transportation Equipment	3.00%	20.00%		-	-	-	-	-	-	-	-	-
28	392	Stores Equipment	3.00%	4.00%		-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%		-	-	-	-	-	-	-	-	-
30	394	Laboratory Equipment	3.00%	10.00%		-	-	-	-	-	-	-	-	-
31	395	Power Operated Equipment	3.00%	5.00%		-	-	-	-	-	-	-	-	-
32	396	Communication Equipment	3.00%	10.00%		-	-	-	-	-	-	-	-	-
33	397	Miscellaneous Equipment	3.00%	10.00%		-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%			-	-	-	-	-	-	-	-	-
35														
36		Sub Total			-	-	-	-	-	-	-	-	-	-
37														
38		Post-In Service AFUDC		4.52%										
39														
40		TOTAL			-	-	-	-	-	-	-	-	-	-
41														
42		Depreciable Plant												
43		Composite Depreciation Rate												
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Stat												
46														

Pima Utility Company - Sewer Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.6
Witness: Jones/Bourassa

					Sewer Plant Recorded on Water Books - Not Included in Decision 62184									
					1996									
Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%		-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%		-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%		-	-	-	-	-	-	-	-	-
4	354	Structures & Improvements	3.00%	3.33%		-	-	-	-	-	-	-	-	-
5	355	Power Generation Equipment	3.00%	5.00%		-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%		-	-	-	-	-	-	-	-	-
7	361.1	Collection Sewers - Gravity	3.00%	2.00%		-	-	-	-	-	-	-	-	-
8	361.2	Manholes & Cleanouts	3.00%	2.00%		-	-	-	-	-	-	-	-	-
9	362	Special Collecting Structures	3.00%	2.00%		-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%		-	-	-	-	-	-	-	-	-
11	364	Flow Measuring Devices	3.00%	10.00%		-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%		-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%		-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%		-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%		-	-	-	-	-	-	-	-	-
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%		-	-	-	-	-	-	-	-	-
17	371.2	Other Pumping Equipment	3.00%	10.00%		-	-	-	-	-	-	-	-	-
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%		-	-	-	-	-	-	-	-	-
19	374	Reuse Distribution Reserviors	3.00%	2.50%		-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%		-	-	-	-	-	-	-	-	-
21	380	Treatment & Disposal Equipment	3.00%	5.00%		-	-	-	-	-	-	-	-	-
22	381	Plant Sewers	3.00%	5.00%		-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%		-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%		-	-	-	-	-	-	-	-	-
25	390	Office Furniture & Equipment	3.00%	6.67%		-	-	-	-	-	-	-	-	-
26	390.1	Computers & Software	3.00%	20.00%		-	-	-	-	-	-	-	-	-
27	391	Transportation Equipment	3.00%	20.00%		-	-	-	-	-	-	-	-	-
28	392	Stores Equipment	3.00%	4.00%		-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%		-	-	-	-	-	-	-	-	-
30	394	Laboratory Equipment	3.00%	10.00%		-	-	-	-	-	-	-	-	-
31	395	Power Operated Equipment	3.00%	5.00%		-	-	-	-	-	-	-	-	-
32	396	Communication Equipment	3.00%	10.00%		-	-	-	-	-	-	-	-	-
33	397	Miscellaneous Equipment	3.00%	10.00%		-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%			-	-	-	-	-	-	-	-	-
35														
36		Sub Total			-	-	-	-	-	-	-	-	-	-
37														
38		Post-In Service AFUDC		4.52%										
39														
40		TOTAL			-	-	-	-	-	-	-	-	-	-
41														
42		Depreciable Plant												
43		Composite Depreciation Rate												
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Stat												
46														

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Plant Additions and Retirements

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					Sewer Plant Recorded on Water Books - Not Included in Decision 62184									
					1997									
Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
4	354	Structures & Improvements	3.00%	3.33%	-	-	-	-	-	-	-	-	-	-
5	355	Power Generation Equipment	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
7	361.1	Collection Sewers - Gravity	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
8	361.2	Manholes & Cleanouts	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
9	362	Special Collecting Structures	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
11	364	Flow Measuring Devices	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%	-	-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%	-	-	-	-	-	-	-	-	-	-
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
17	371.2	Other Pumping Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
19	374	Reuse Distribution Reserviors	3.00%	2.50%	-	-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
21	380	Treatment & Disposal Equipment	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
22	381	Plant Sewers	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%	-	-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%	-	-	-	-	-	-	-	-	-	-
25	390	Office Furniture & Equipment	3.00%	6.67%	-	-	-	-	-	-	-	-	-	-
26	390.1	Computers & Software	3.00%	20.00%	-	-	-	-	-	-	-	-	-	-
27	391	Transportation Equipment	3.00%	20.00%	-	-	-	-	-	-	-	-	-	-
28	392	Stores Equipment	3.00%	4.00%	-	-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
30	394	Laboratory Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
31	395	Power Operated Equipment	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
32	396	Communication Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
33	397	Miscellaneous Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%		-	-	-	-	-	-	-	-	-	-
35														
36		Sub Total			-	-	-	-	-	-	-	-	-	-
37														
38		Post-In Service AFUDC		4.52%										
39														
40		TOTAL			-	-	-	-	-	-	-	-	-	-
41														
42		Depreciable Plant												
43		Composite Depreciation Rate												
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Staf												
46														

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Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	1998 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%	-	-	-	-	480	480	-	-	76,229	-
4	354	Structures & Improvements	3.00%	3.33%	202,986	-	202,986	-	-	-	-	3,045	202,986	3,045
5	355	Power Generation Equipment	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%	28,319	-	28,319	-	-	-	-	425	28,319	425
7	361.1	Collection Sewers - Gravity	3.00%	2.00%	24,402	(9,148)	15,254	-	-	-	-	77,007	2,574,535	344,521
8	361.2	Manholes & Cleanouts	3.00%	2.00%	21,257	-	21,257	-	-	-	-	33,881	1,139,982	150,818
9	362	Special Collecting Structures	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%	-	-	-	-	-	-	-	4,486	149,529	20,116
11	364	Flow Measuring Devices	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%	-	-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%	-	-	-	-	-	-	-	6,788	226,251	30,437
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%	432,170	-	432,170	-	63,740	63,740	-	28,526	1,135,067	44,920
17	371.2	Other Pumping Equipment	3.00%	10.00%	54,700	-	54,700	-	65,250	65,250	-	2,842	89,450	(51,955)
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%	838,888	-	838,888	-	-	-	-	12,583	838,888	12,583
19	374	Reuse Distribution Reserviors	3.00%	2.50%	-	-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%	104,135	-	104,135	-	-	-	-	2,066	120,925	3,821
21	380	Treatment & Disposal Equipment	3.00%	5.00%	606,887	-	606,887	-	-	-	-	265,537	9,154,685	1,159,013
22	381	Plant Sewers	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%	-	-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%	500,000	-	500,000	-	-	-	-	7,500	500,000	7,500
25	390	Office Furniture & Equipment	3.00%	6.67%	1,870	-	1,870	-	-	-	-	28	1,870	28
26	390.1	Computers & Software	3.00%	20.00%	-	-	-	-	-	-	-	-	-	-
27	391	Transportation Equipment	3.00%	20.00%	584	-	584	-	-	-	-	107	3,844	448
28	392	Stores Equipment	3.00%	4.00%	-	-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%	2,860	-	2,860	-	47,661	47,661	-	4,755	136,091	(23,998)
30	394	Laboratory Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
31	395	Power Operated Equipment	3.00%	5.00%	1,068	-	1,068	-	-	-	-	16	1,068	16
32	396	Communication Equipment	3.00%	10.00%	36,607	-	36,607	-	-	-	-	549	36,607	549
33	397	Miscellaneous Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%		-	-	-	-	-	-	-	-	-	-
35														
36		Sub Total			2,856,732	(9,148)	2,847,584	-	177,131	177,131	-	450,139	16,416,326	1,702,285
37														
38		Post-In Service AFUDC		4.52%								32,396	716,722	32,396
39														
40		TOTAL			2,856,732	(9,148)	2,847,584	-	177,131	177,131	-	482,535	17,133,048	1,734,681
41														
42		Depreciable Plant											16,340,097	
43		Composite Depreciation Rate											2.9531%	
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Stat												
46														

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Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	1999 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%	-	-	-	-	-	-	-	-	76,229	-
4	354	Structures & Improvements	3.00%	3.33%	-	-	-	-	-	-	-	6,090	202,986	9,134
5	355	Power Generation Equipment	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%	-	-	-	-	-	-	-	850	28,319	1,274
7	361.1	Collection Sewers - Gravity	3.00%	2.00%	400,340	-	400,340	-	-	-	-	83,241	2,974,876	427,762
8	361.2	Manholes & Cleanouts	3.00%	2.00%	129,190	-	129,190	-	-	-	-	36,137	1,269,172	186,955
9	362	Special Collecting Structures	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%	213,312	-	213,312	-	-	-	-	7,686	362,841	27,801
11	364	Flow Measuring Devices	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%	-	-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%	-	-	-	-	-	-	-	6,788	226,251	37,224
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%	54,090	-	54,090	-	14,000	14,000	-	34,653	1,175,157	65,573
17	371.2	Other Pumping Equipment	3.00%	10.00%	-	-	-	-	-	-	-	2,684	89,450	(49,272)
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%	82,615	-	82,615	-	2,406	2,406	-	26,370	919,096	36,547
19	374	Reuse Distribution Reserviors	3.00%	2.50%	-	-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%	-	-	-	-	-	-	-	3,628	120,925	7,448
21	380	Treatment & Disposal Equipment	3.00%	5.00%	73,913	-	73,913	-	17,618	17,618	-	275,485	9,210,980	1,416,880
22	381	Plant Sewers	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%	-	-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%	-	-	-	-	-	-	-	15,000	500,000	22,500
25	390	Office Furniture & Equipment	3.00%	6.67%	745	-	745	-	-	-	-	67	2,615	95
26	390.1	Computers & Software	3.00%	20.00%	1,512	-	1,512	-	-	-	-	23	1,512	23
27	391	Transportation Equipment	3.00%	20.00%	-	-	-	-	-	-	-	115	3,844	563
28	392	Stores Equipment	3.00%	4.00%	-	-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%	1,363	-	1,363	-	-	-	-	4,103	137,454	(19,895)
30	394	Laboratory Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
31	395	Power Operated Equipment	3.00%	5.00%	-	-	-	-	-	-	-	32	1,068	48
32	396	Communication Equipment	3.00%	10.00%	13,860	-	13,860	-	-	-	-	1,306	50,467	1,855
33	397	Miscellaneous Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%		-	-	-	-	-	-	-	-	-	-
35														
36		Sub Total			970,940	-	970,940	-	34,024	34,024	-	504,257	17,353,243	2,172,518
37														
38		Post-In Service AFUDC		4.52%								32,396	716,722	64,792
39														
40		TOTAL			970,940	-	970,940	-	34,024	34,024	-	536,652	18,069,965	2,237,310
41														
42		Depreciable Plant											17,277,013	
43		Composite Depreciation Rate											3.1062%	
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Stat												
46														

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Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	2000 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%	-	-	-	-	-	-	-	-	76,229	-
4	354	Structures & Improvements	3.00%	3.33%	-	-	-	-	-	-	-	6,759	202,986	15,894
5	355	Power Generation Equipment	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%	-	-	-	-	-	-	-	566	28,319	1,841
7	361.1	Collection Sewers - Gravity	3.00%	2.00%	-	-	-	-	-	-	-	59,498	2,974,876	487,260
8	361.2	Manholes & Cleanouts	3.00%	2.00%	-	-	-	-	-	-	-	25,383	1,269,172	212,338
9	362	Special Collecting Structures	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%	515	-	515	-	-	-	-	7,262	363,356	35,063
11	364	Flow Measuring Devices	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%	-	-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%	-	-	-	-	-	-	-	8,077	226,251	45,301
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%	101,860	-	101,860	-	8,564	8,564	-	122,181	1,268,454	179,190
17	371.2	Other Pumping Equipment	3.00%	10.00%	6,592	-	6,592	-	-	-	-	9,275	96,042	(39,997)
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%	20,717	-	20,717	-	7,216	7,216	-	92,585	932,598	121,916
19	374	Reuse Distribution Reserviors	3.00%	2.50%	-	-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%	-	-	-	-	-	-	-	2,418	120,925	9,867
21	380	Treatment & Disposal Equipment	3.00%	5.00%	139,747	-	139,747	-	25,869	25,869	-	463,396	9,324,858	1,854,407
22	381	Plant Sewers	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%	-	-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%	-	-	-	-	-	-	-	33,350	500,000	55,850
25	390	Office Furniture & Equipment	3.00%	6.67%	3,752	-	3,752	-	-	-	-	300	6,367	395
26	390.1	Computers & Software	3.00%	20.00%	2,360	-	2,360	-	-	-	-	538	3,872	561
27	391	Transportation Equipment	3.00%	20.00%	21,500	-	21,500	-	-	-	-	2,919	25,344	3,482
28	392	Stores Equipment	3.00%	4.00%	-	-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%	1,725	-	1,725	1,236	149	1,385	-	13,762	137,795	(7,517)
30	394	Laboratory Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
31	395	Power Operated Equipment	3.00%	5.00%	643	-	643	-	-	-	-	69	1,711	118
32	396	Communication Equipment	3.00%	10.00%	15,319	-	15,319	-	1,917	1,917	-	5,717	63,869	5,655
33	397	Miscellaneous Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%		-	-	-	-	-	-	-	-	-	-
35														
36		Sub Total			314,731	-	314,731	1,236	43,715	44,951	-	854,056	17,623,023	2,981,623
37														
38		Post-In Service AFUDC		4.52%								32,396	716,722	97,188
39														
40		TOTAL			314,731	-	314,731	1,236	43,715	44,951	-	886,452	18,339,745	3,078,810
41														
42		Depreciable Plant											17,546,794	
43		Composite Depreciation Rate											5.0519%	
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Stat												
46														

Pima Utility Company - Sewer Division
Plant Additions and Retirements

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Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	2001 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%	-	-	-	-	-	-	-	-	76,229	-
4	354	Structures & Improvements	3.00%	3.33%	-	-	-	-	-	-	-	6,759	202,986	22,653
5	355	Power Generation Equipment	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%	-	-	-	-	-	-	-	566	28,319	2,407
7	361.1	Collection Sewers - Gravity	3.00%	2.00%	1,355	-	1,355	-	-	-	-	59,511	2,976,231	546,771
8	361.2	Manholes & Cleanouts	3.00%	2.00%	-	-	-	-	-	-	-	25,383	1,269,172	237,722
9	362	Special Collecting Structures	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%	1,640	-	1,640	-	-	-	-	7,284	364,996	42,347
11	364	Flow Measuring Devices	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%	-	-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%	-	-	-	-	-	-	-	8,077	226,251	53,378
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%	11,409	-	11,409	-	5,303	5,303	-	127,151	1,274,559	301,037
17	371.2	Other Pumping Equipment	3.00%	10.00%	11,207	-	11,207	-	495	495	-	10,140	106,754	(30,352)
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%	47,141	-	47,141	-	6,651	6,651	-	95,284	973,087	210,549
19	374	Reuse Distribution Reserviors	3.00%	2.50%	-	-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%	-	-	-	-	-	-	-	2,418	120,925	12,285
21	380	Treatment & Disposal Equipment	3.00%	5.00%	66,653	-	66,653	-	15,672	15,672	-	467,517	9,375,839	2,306,253
22	381	Plant Sewers	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%	-	-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%	5,438	-	5,438	-	-	-	-	33,531	505,438	89,381
25	390	Office Furniture & Equipment	3.00%	6.67%	-	-	-	-	-	-	-	425	6,367	820
26	390.1	Computers & Software	3.00%	20.00%	1,691	-	1,691	-	-	-	-	944	5,564	1,505
27	391	Transportation Equipment	3.00%	20.00%	-	-	-	-	-	-	-	5,069	25,344	8,550
28	392	Stores Equipment	3.00%	4.00%	-	-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%	9,757	-	9,757	-	-	-	-	14,267	147,552	6,750
30	394	Laboratory Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
31	395	Power Operated Equipment	3.00%	5.00%	-	-	-	-	-	-	-	86	1,711	203
32	396	Communication Equipment	3.00%	10.00%	9,560	-	9,560	-	680	680	-	6,831	72,749	11,806
33	397	Miscellaneous Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%		-	-	-	-	-	-	-	-	-	-
35														
36		Sub Total			165,851	-	165,851	-	28,801	28,801	-	871,244	17,760,073	3,824,066
37														
38		Post-In Service AFUDC		4.52%								32,396	716,722	129,583
39														
40		TOTAL			165,851	-	165,851	-	28,801	28,801	-	903,640	18,476,795	3,953,649
41														
42		Depreciable Plant											17,683,844	
43		Composite Depreciation Rate											5.1100%	
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Stat												
46														

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Plant Additions and Retirements

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Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	2002 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%	-	-	-	-	-	-	-	-	76,229	-
4	354	Structures & Improvements	3.00%	3.33%	1,351	-	1,351	-	-	-	-	6,782	204,337	29,435
5	355	Power Generation Equipment	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%	-	-	-	-	-	-	-	566	28,319	2,973
7	361.1	Collection Sewers - Gravity	3.00%	2.00%	230,146	-	230,146	-	-	-	-	61,826	3,206,377	608,597
8	361.2	Manholes & Cleanouts	3.00%	2.00%	134,175	-	134,175	-	-	-	-	26,725	1,403,347	264,447
9	362	Special Collecting Structures	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%	106,678	-	106,678	-	-	-	-	8,367	471,674	50,714
11	364	Flow Measuring Devices	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%	-	-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%	-	-	-	-	-	-	-	8,077	226,251	61,456
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%	11,844	-	11,844	-	1,681	1,681	-	127,964	1,284,722	427,320
17	371.2	Other Pumping Equipment	3.00%	10.00%	-	-	-	-	-	-	-	10,675	106,754	(19,677)
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%	16,178	-	16,178	-	8,760	8,760	-	97,680	980,505	299,469
19	374	Reuse Distribution Reserviors	3.00%	2.50%	-	-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%	-	-	-	-	-	-	-	2,418	120,925	14,704
21	380	Treatment & Disposal Equipment	3.00%	5.00%	84,553	-	84,553	-	19,766	19,766	-	470,412	9,440,626	2,756,899
22	381	Plant Sewers	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%	-	-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%	287,579	-	287,579	-	-	-	-	43,303	793,016	132,685
25	390	Office Furniture & Equipment	3.00%	6.67%	-	-	-	-	-	-	-	425	6,367	1,244
26	390.1	Computers & Software	3.00%	20.00%	1,728	-	1,728	-	-	-	-	1,286	7,292	2,790
27	391	Transportation Equipment	3.00%	20.00%	-	-	-	-	-	-	-	5,069	25,344	13,619
28	392	Stores Equipment	3.00%	4.00%	-	-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%	5,634	-	5,634	-	2,853	2,853	-	14,894	150,333	18,791
30	394	Laboratory Equipment	3.00%	10.00%	1,993	-	1,993	-	-	-	-	100	1,993	100
31	395	Power Operated Equipment	3.00%	5.00%	-	-	-	-	-	-	-	86	1,711	289
32	396	Communication Equipment	3.00%	10.00%	1,592	-	1,592	-	3,919	3,919	-	7,159	70,422	15,046
33	397	Miscellaneous Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%		-	-	-	-	-	-	-	-	-	-
35														
36		Sub Total			883,450	-	883,450	-	36,979	36,979	-	893,813	18,606,544	4,680,900
37														
38		Post-In Service AFUDC		4.52%								32,396	716,722	161,979
39														
40		TOTAL			883,450	-	883,450	-	36,979	36,979	-	926,209	19,323,266	4,842,879
41														
42		Depreciable Plant											18,530,315	
43		Composite Depreciation Rate											4.9983%	
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Stat												
46														

Pima Utility Company - Sewer Division
Plant Additions and Retirements

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Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	2003 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%	-	-	-	-	-	-	-	-	76,229	-
4	354	Structures & Improvements	3.00%	3.33%	-	-	-	-	3,055	3,055	-	6,754	201,282	33,134
5	355	Power Generation Equipment	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%	-	-	-	-	-	-	-	566	28,319	3,540
7	361.1	Collection Sewers - Gravity	3.00%	2.00%	378,861	-	378,861	-	-	-	-	67,916	3,585,238	676,513
8	361.2	Manholes & Cleanouts	3.00%	2.00%	156,785	-	156,785	-	-	-	-	29,635	1,560,132	294,082
9	362	Special Collecting Structures	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%	89,529	-	89,529	-	-	-	-	10,329	561,202	61,042
11	364	Flow Measuring Devices	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%	-	-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%	-	-	-	-	-	-	-	8,077	226,251	69,533
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%	35,524	-	35,524	-	20,117	20,117	-	129,243	1,300,129	536,446
17	371.2	Other Pumping Equipment	3.00%	10.00%	4,853	-	4,853	-	-	-	-	10,918	111,608	(8,759)
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%	34,368	-	34,368	-	13,353	13,353	-	99,101	1,001,520	385,217
19	374	Reuse Distribution Reserviors	3.00%	2.50%	-	-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%	2,702	-	2,702	-	-	-	-	2,446	123,627	17,149
21	380	Treatment & Disposal Equipment	3.00%	5.00%	78,286	-	78,286	-	16,849	16,849	-	473,567	9,502,063	3,213,616
22	381	Plant Sewers	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%	-	-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%	-	-	-	-	-	-	-	52,894	793,016	185,579
25	390	Office Furniture & Equipment	3.00%	6.67%	-	-	-	-	-	-	-	425	6,367	1,669
26	390.1	Computers & Software	3.00%	20.00%	4,307	-	4,307	-	3,872	3,872	-	1,502	7,727	420
27	391	Transportation Equipment	3.00%	20.00%	13,747	-	13,747	-	-	-	-	6,444	39,091	20,063
28	392	Stores Equipment	3.00%	4.00%	-	-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%	9,638	(6,255)	3,384	-	113	113	-	15,197	153,603	33,875
30	394	Laboratory Equipment	3.00%	10.00%	-	-	-	-	-	-	-	199	1,993	299
31	395	Power Operated Equipment	3.00%	5.00%	-	-	-	-	-	-	-	86	1,711	374
32	396	Communication Equipment	3.00%	10.00%	31,795	-	31,795	-	10,731	10,731	-	8,095	91,487	12,410
33	397	Miscellaneous Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%		-	-	-	-	-	-	-	-	-	-
35														
36		Sub Total			840,395	(6,255)	834,140	-	68,091	68,091	-	923,393	19,372,594	5,536,202
37														
38		Post-In Service AFUDC		4.52%								32,396	716,722	194,375
39														
40		TOTAL			840,395	(6,255)	834,140	-	68,091	68,091	-	955,789	20,089,316	5,730,577
41														
42		Depreciable Plant											19,296,365	
43		Composite Depreciation Rate											4.9532%	
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Stat												
46														

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Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	2004 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%	15,299	-	15,299	-	-	-	-	-	91,528	-
4	354	Structures & Improvements	3.00%	3.33%	-	-	-	-	-	-	-	6,703	201,282	39,836
5	355	Power Generation Equipment	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%	-	-	-	-	-	-	-	566	28,319	4,106
7	361.1	Collection Sewers - Gravity	3.00%	2.00%	10,421	-	10,421	-	-	-	-	71,809	3,595,659	748,322
8	361.2	Manholes & Cleanouts	3.00%	2.00%	6,766	-	6,766	-	-	-	-	31,270	1,566,898	325,352
9	362	Special Collecting Structures	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%	3,435	-	3,435	-	-	-	-	11,258	564,637	72,301
11	364	Flow Measuring Devices	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%	-	-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%	-	-	-	-	-	-	-	8,077	226,251	77,610
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%	76,413	-	76,413	-	28,063	28,063	-	132,430	1,348,479	640,813
17	371.2	Other Pumping Equipment	3.00%	10.00%	1,251	-	1,251	-	-	-	-	11,223	112,859	2,465
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%	24,716	-	24,716	-	9,721	9,721	-	100,902	1,016,515	476,398
19	374	Reuse Distribution Reserviors	3.00%	2.50%	-	-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%	-	-	-	-	-	-	-	2,473	123,627	19,622
21	380	Treatment & Disposal Equipment	3.00%	5.00%	379,961	-	379,961	-	118,948	118,948	-	481,628	9,763,076	3,576,297
22	381	Plant Sewers	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%	-	-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%	-	-	-	-	-	-	-	52,894	793,016	238,473
25	390	Office Furniture & Equipment	3.00%	6.67%	-	-	-	-	-	-	-	425	6,367	2,094
26	390.1	Computers & Software	3.00%	20.00%	-	-	-	-	-	-	-	1,545	7,727	1,966
27	391	Transportation Equipment	3.00%	20.00%	1,909	-	1,909	-	1,261	1,261	-	7,883	39,739	26,685
28	392	Stores Equipment	3.00%	4.00%	-	-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%	1,585	-	1,585	-	1,000	1,000	-	15,390	154,188	48,265
30	394	Laboratory Equipment	3.00%	10.00%	-	-	-	-	-	-	-	199	1,993	498
31	395	Power Operated Equipment	3.00%	5.00%	-	-	-	-	-	-	-	86	1,711	460
32	396	Communication Equipment	3.00%	10.00%	25,038	-	25,038	-	2,052	2,052	-	10,298	114,473	20,656
33	397	Miscellaneous Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%		-	-	-	-	-	-	-	-	-	-
35														
36		Sub Total			546,795	-	546,795	-	161,045	161,045	-	947,060	19,758,344	6,322,217
37														
38		Post-In Service AFUDC		4.52%								32,396	716,722	226,771
39														
40		TOTAL			546,795	-	546,795	-	161,045	161,045	-	979,456	20,475,066	6,548,988
41														
42		Depreciable Plant											19,666,816	
43		Composite Depreciation Rate											4.9802%	
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Staf												
46														

Pima Utility Company - Sewer Division
Plant Additions and Retirements

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Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	2005 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%	-	-	-	-	-	-	-	-	91,528	-
4	354	Structures & Improvements	3.00%	3.33%	-	-	-	-	-	-	-	6,703	201,282	46,539
5	355	Power Generation Equipment	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%	69,204	-	69,204	-	-	-	-	1,258	97,523	5,365
7	361.1	Collection Sewers - Gravity	3.00%	2.00%	225,293	-	225,293	-	-	-	-	74,166	3,820,952	822,488
8	361.2	Manholes & Cleanouts	3.00%	2.00%	132,296	-	132,296	-	-	-	-	32,661	1,699,194	358,013
9	362	Special Collecting Structures	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%	50,514	-	50,514	-	-	-	-	11,798	615,152	84,099
11	364	Flow Measuring Devices	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%	-	-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%	-	-	-	-	-	-	-	8,077	226,251	85,687
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%	75,225	-	75,225	64,361	30,922	95,283	-	133,845	1,328,421	679,375
17	371.2	Other Pumping Equipment	3.00%	10.00%	3,343	-	3,343	-	-	-	-	11,453	116,201	13,918
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%	71,431	-	71,431	-	15,449	15,449	-	104,451	1,072,498	565,399
19	374	Reuse Distribution Reserviors	3.00%	2.50%	-	-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%	-	-	-	-	-	-	-	2,473	123,627	22,095
21	380	Treatment & Disposal Equipment	3.00%	5.00%	427,259	-	427,259	331,845	260,594	592,440	-	484,024	9,597,895	3,467,881
22	381	Plant Sewers	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%	-	-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%	-	-	-	-	-	-	-	52,894	793,016	291,367
25	390	Office Furniture & Equipment	3.00%	6.67%	-	-	-	-	2,813	2,813	-	331	3,554	(389)
26	390.1	Computers & Software	3.00%	20.00%	-	-	-	-	1,691	1,691	-	1,376	6,036	1,651
27	391	Transportation Equipment	3.00%	20.00%	5,500	-	5,500	-	-	-	-	8,498	45,239	35,183
28	392	Stores Equipment	3.00%	4.00%	-	-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%	8,313	-	8,313	-	2,885	2,885	-	15,690	159,616	61,070
30	394	Laboratory Equipment	3.00%	10.00%	-	-	-	-	-	-	-	199	1,993	697
31	395	Power Operated Equipment	3.00%	5.00%	-	-	-	-	-	-	-	86	1,711	545
32	396	Communication Equipment	3.00%	10.00%	5,986	-	5,986	-	3,150	3,150	-	11,589	117,309	29,095
33	397	Miscellaneous Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%		-	-	-	-	-	-	-	-	-	-
35														
36		Sub Total			1,074,365	-	1,074,365	396,207	317,504	713,711	-	961,572	20,118,998	6,570,078
37														
38		Post-In Service AFUDC		4.52%								32,396	716,722	259,167
39														
40		TOTAL			1,074,365	-	1,074,365	396,207	317,504	713,711	-	993,968	20,835,720	6,829,245
41														
42		Depreciable Plant											20,027,470	
43		Composite Depreciation Rate											4.9630%	
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Stat												
46														

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Plant Additions and Retirements

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Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	2006 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%	-	-	-	-	-	-	-	-	91,528	-
4	354	Structures & Improvements	3.00%	3.33%	-	-	-	-	-	-	-	6,703	201,282	53,242
5	355	Power Generation Equipment	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%	-	-	-	-	-	-	-	1,950	97,523	7,315
7	361.1	Collection Sewers - Gravity	3.00%	2.00%	-	-	-	-	-	-	-	76,419	3,820,952	898,907
8	361.2	Manholes & Cleanouts	3.00%	2.00%	-	-	-	-	-	-	-	33,984	1,699,194	391,997
9	362	Special Collecting Structures	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%	-	-	-	-	-	-	-	12,303	615,152	96,402
11	364	Flow Measuring Devices	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%	-	-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%	-	-	-	-	-	-	-	8,077	226,251	93,764
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%	10,630	-	10,630	-	5,000	5,000	-	133,124	1,334,051	807,499
17	371.2	Other Pumping Equipment	3.00%	10.00%	-	-	-	-	-	-	-	11,620	116,201	25,538
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%	58,153	-	58,153	-	18,992	18,992	-	109,208	1,111,658	655,615
19	374	Reuse Distribution Reserviors	3.00%	2.50%	-	-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%	3,089	-	3,089	-	-	-	-	2,503	126,716	24,598
21	380	Treatment & Disposal Equipment	3.00%	5.00%	72,002	-	72,002	-	10,214	10,214	-	481,439	9,659,683	3,939,106
22	381	Plant Sewers	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%	-	-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%	-	-	-	-	-	-	-	52,894	793,016	344,261
25	390	Office Furniture & Equipment	3.00%	6.67%	-	-	-	-	-	-	-	237	3,554	(151)
26	390.1	Computers & Software	3.00%	20.00%	-	-	-	-	-	-	-	1,207	6,036	2,858
27	391	Transportation Equipment	3.00%	20.00%	-	-	-	-	-	-	-	9,048	45,239	44,231
28	392	Stores Equipment	3.00%	4.00%	-	-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%	-	-	-	-	-	-	-	15,962	159,616	77,031
30	394	Laboratory Equipment	3.00%	10.00%	-	-	-	-	-	-	-	199	1,993	897
31	395	Power Operated Equipment	3.00%	5.00%	-	-	-	-	643	643	-	69	1,068	(28)
32	396	Communication Equipment	3.00%	10.00%	16,537	-	16,537	-	-	-	-	12,558	133,847	41,653
33	397	Miscellaneous Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%		-	-	-	-	-	-	-	-	-	-
35														
36		Sub Total			160,411	-	160,411	-	34,849	34,849	-	969,505	20,244,560	7,504,734
37														
38		Post-In Service AFUDC		4.52%								32,396	716,722	291,563
39														
40		TOTAL			160,411	-	160,411	-	34,849	34,849	-	1,001,901	20,961,282	7,796,297
41														
42		Depreciable Plant											20,153,032	
43		Composite Depreciation Rate											4.9715%	
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Stal												
46														

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Plant Additions and Retirements

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Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	2007 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%	-	-	-	-	-	-	-	-	91,528	-
4	354	Structures & Improvements	3.00%	3.33%	-	-	-	-	-	-	-	6,703	201,282	59,945
5	355	Power Generation Equipment	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%	-	-	-	-	-	-	-	1,950	97,523	9,266
7	361.1	Collection Sewers - Gravity	3.00%	2.00%	-	-	-	-	-	-	-	76,419	3,820,952	975,326
8	361.2	Manholes & Cleanouts	3.00%	2.00%	-	-	-	-	-	-	-	33,984	1,699,194	425,981
9	362	Special Collecting Structures	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%	-	-	-	-	-	-	-	12,303	615,152	108,705
11	364	Flow Measuring Devices	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%	-	-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%	-	-	-	-	-	-	-	8,077	226,251	101,841
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%	29,215	-	29,215	-	14,835	14,835	-	134,124	1,348,431	926,788
17	371.2	Other Pumping Equipment	3.00%	10.00%	11,170	-	11,170	-	29,789	29,789	-	10,689	97,582	6,438
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%	21,213	-	21,213	-	7,228	7,228	-	111,865	1,125,644	760,252
19	374	Reuse Distribution Reserviors	3.00%	2.50%	-	-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%	5,414	-	5,414	-	-	-	-	2,588	132,129	27,186
21	380	Treatment & Disposal Equipment	3.00%	5.00%	33,470	-	33,470	-	3,675	3,675	-	483,729	9,689,478	4,419,160
22	381	Plant Sewers	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%	-	-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%	-	-	-	-	-	-	-	52,894	793,016	397,156
25	390	Office Furniture & Equipment	3.00%	6.67%	-	-	-	-	-	-	-	237	3,554	86
26	390.1	Computers & Software	3.00%	20.00%	-	-	-	-	-	-	-	1,207	6,036	4,065
27	391	Transportation Equipment	3.00%	20.00%	-	-	-	-	1,909	1,909	-	1,619	43,330	43,940
28	392	Stores Equipment	3.00%	4.00%	-	-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%	2,574	-	2,574	-	951	951	-	16,043	161,239	92,123
30	394	Laboratory Equipment	3.00%	10.00%	-	-	-	-	-	-	-	199	1,993	1,096
31	395	Power Operated Equipment	3.00%	5.00%	-	-	-	-	-	-	-	53	1,068	25
32	396	Communication Equipment	3.00%	10.00%	-	-	-	-	13,427	13,427	-	12,713	120,420	40,939
33	397	Miscellaneous Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%		-	-	-	-	-	-	-	-	-	-
35														
36		Sub Total			103,057	-	103,057	-	71,814	71,814	-	967,398	20,275,803	8,400,318
37														
38		Post-In Service AFUDC		4.52%								32,396	716,722	323,958
39														
40		TOTAL			103,057	-	103,057	-	71,814	71,814	-	999,794	20,992,525	8,724,276
41														
42		Depreciable Plant											20,184,275	
43		Composite Depreciation Rate											4.9533%	
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Stat												
46														

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Plant Additions and Retirements

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Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	2008 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%	-	-	-	-	-	-	-	-	91,528	-
4	354	Structures & Improvements	3.00%	3.33%	49,150	-	49,150	-	-	-	-	7,521	250,433	67,466
5	355	Power Generation Equipment	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%	-	-	-	-	-	-	-	1,950	97,523	11,216
7	361.1	Collection Sewers - Gravity	3.00%	2.00%	33,561	-	33,561	-	-	-	-	76,755	3,854,512	1,052,081
8	361.2	Manholes & Cleanouts	3.00%	2.00%	15,412	-	15,412	-	-	-	-	34,138	1,714,606	460,119
9	362	Special Collecting Structures	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%	17,097	-	17,097	-	-	-	-	12,474	632,249	121,179
11	364	Flow Measuring Devices	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%	-	-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%	-	-	-	-	-	-	-	8,077	226,251	109,919
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%	29,252	-	29,252	-	11,030	11,030	-	135,754	1,366,653	1,051,513
17	371.2	Other Pumping Equipment	3.00%	10.00%	3,616	-	3,616	-	-	-	-	9,939	101,198	16,377
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%	262,374	-	262,374	-	890	890	-	125,639	1,387,128	885,001
19	374	Reuse Distribution Reserviors	3.00%	2.50%	-	-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%	2,055	-	2,055	-	-	-	-	2,663	134,184	29,850
21	380	Treatment & Disposal Equipment	3.00%	5.00%	170,263	-	170,263	-	79,777	79,777	-	486,736	9,779,964	4,826,119
22	381	Plant Sewers	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%	-	-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%	179,493	-	179,493	-	-	-	-	58,880	972,509	456,036
25	390	Office Furniture & Equipment	3.00%	6.67%	-	-	-	-	-	-	-	237	3,554	323
26	390.1	Computers & Software	3.00%	20.00%	982	-	982	-	-	-	-	1,305	7,018	5,371
27	391	Transportation Equipment	3.00%	20.00%	-	-	-	21,500	-	21,500	1,500	(2,110)	21,830	21,830
28	392	Stores Equipment	3.00%	4.00%	-	-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%	-	-	-	1,463	5,000	6,463	-	15,801	154,777	101,461
30	394	Laboratory Equipment	3.00%	10.00%	-	-	-	-	-	-	-	199	1,993	1,295
31	395	Power Operated Equipment	3.00%	5.00%	-	-	-	-	1,068	1,068	-	27	0	(1,016)
32	396	Communication Equipment	3.00%	10.00%	-	-	-	-	6,706	6,706	-	11,707	113,714	45,940
33	397	Miscellaneous Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%		-	-	-	-	-	-	-	-	-	-
35														
36		Sub Total			763,255	-	763,255	22,963	104,471	127,434	1,500	987,693	20,911,624	9,262,076
37														
38		Post-In Service AFUDC		4.52%								32,396	716,722	356,354
39														
40		TOTAL			763,255	-	763,255	22,963	104,471	127,434	1,500	1,020,088	21,628,346	9,618,431
41														
42		Depreciable Plant											20,820,096	
43		Composite Depreciation Rate											4.8995%	
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Staf												
46														

Pima Utility Company - Sewer Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.19
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	2009 Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%	-	-	-	-	-	-	-	-	91,528	-
4	354	Structures & Improvements	3.00%	3.33%	-	-	-	-	-	-	-	8,339	250,433	75,805
5	355	Power Generation Equipment	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%	-	-	-	-	-	-	-	1,950	97,523	13,167
7	361.1	Collection Sewers - Gravity	3.00%	2.00%	-	-	-	-	-	-	-	77,090	3,854,512	1,129,171
8	361.2	Manholes & Cleanouts	3.00%	2.00%	3,765	-	3,765	-	-	-	-	34,330	1,718,371	494,448
9	362	Special Collecting Structures	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%	-	-	-	-	-	-	-	12,645	632,249	133,824
11	364	Flow Measuring Devices	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%	-	-	-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%	-	-	-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%	-	-	-	-	-	-	-	8,077	226,251	117,996
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%	211,774	-	211,774	-	90,630	90,630	-	142,723	1,487,797	1,103,605
17	371.2	Other Pumping Equipment	3.00%	10.00%	-	-	-	-	-	-	-	10,120	101,198	26,496
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%	21,325	-	21,325	-	14,635	14,635	-	139,047	1,393,818	1,009,413
19	374	Reuse Distribution Reserviors	3.00%	2.50%	-	-	-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%	-	-	-	-	-	-	-	2,684	134,184	32,533
21	380	Treatment & Disposal Equipment	3.00%	5.00%	102,914	-	102,914	-	57,810	57,810	-	490,126	9,825,068	5,258,434
22	381	Plant Sewers	3.00%	5.00%	-	-	-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%	-	-	-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%	-	-	-	-	-	-	-	64,866	972,509	520,902
25	390	Office Furniture & Equipment	3.00%	6.67%	-	-	-	-	-	-	-	237	3,554	560
26	390.1	Computers & Software	3.00%	20.00%	-	-	-	-	-	-	-	1,404	7,018	6,774
27	391	Transportation Equipment	3.00%	20.00%	-	-	-	-	-	-	-	-	21,830	21,830
28	392	Stores Equipment	3.00%	4.00%	-	-	-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%	-	-	-	-	-	-	-	15,478	154,777	116,939
30	394	Laboratory Equipment	3.00%	10.00%	-	-	-	-	-	-	-	199	1,993	1,495
31	395	Power Operated Equipment	3.00%	5.00%	-	-	-	-	-	-	-	0	0	(1,016)
32	396	Communication Equipment	3.00%	10.00%	5,115	-	5,115	-	-	-	-	11,627	118,828	57,567
33	397	Miscellaneous Equipment	3.00%	10.00%	-	-	-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%		-	-	-	-	-	-	-	-	-	-
35														
36		Sub Total			344,894	-	344,894	-	163,075	163,075	-	1,020,942	21,093,442	10,119,943
37														
38		Post-In Service AFUDC		4.52%								32,396	716,722	388,750
39														
40		TOTAL			344,894	-	344,894	-	163,075	163,075	-	1,053,338	21,810,164	10,508,693
41														
42		Depreciable Plant											21,001,914	
43		Composite Depreciation Rate											5.0154%	
44														
45		[1] Shaded cells are per Decision No. 62184. Other cells per Stat												
46														

Pima Utility Company - Sewer Division
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.20
Witness: Jones/Bourassa

Line No.	NARUC Account No.	Description	Deprec. Before Jan. '00	Allowed Deprec. Rate[1]	2010 Plant Additions (Per Books)	Plant Adjustments	Rate Case Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Deprecition (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization Cost	0.00%	0.00%	-	-		-	-	-	-	-	-	-	-
2	352	Franchise Cost	0.00%	0.00%	-	-		-	-	-	-	-	-	-	-
3	353	Land and Land Rights	0.00%	0.00%	-	-		-	-	-	-	-	-	91,528	-
4	354	Structures & Improvements	3.00%	3.33%	-	-		-	-	-	-	-	8,339	250,433	84,144
5	355	Power Generation Equipment	3.00%	5.00%	-	-		-	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	3.00%	2.00%	-	-		-	-	-	-	-	1,950	97,523	15,117
7	361.1	Collection Sewers - Gravity	3.00%	2.00%	-	-		-	-	-	-	-	77,090	3,854,512	1,206,261
8	361.2	Manholes & Cleanouts	3.00%	2.00%	73,351	-		73,351	-	-	-	-	35,101	1,791,722	529,549
9	362	Special Collecting Structures	3.00%	2.00%	-	-		-	-	-	-	-	-	-	-
10	363	Servcies to Customers	3.00%	2.00%	-	-		-	-	-	-	-	12,645	632,249	146,469
11	364	Flow Measuring Devices	3.00%	10.00%	-	-		-	-	-	-	-	-	-	-
12	365	Flow Measuring Installations	3.00%	10.00%	-	-		-	-	-	-	-	-	-	-
13	366	Reuse Services	3.00%	2.00%	-	-		-	-	-	-	-	-	-	-
14	367	Reuse Meters and Meter Installations	3.00%	8.33%	-	-		-	-	-	-	-	-	-	-
15	370	Receiving Wells	3.00%	3.57%	-	-		-	-	-	-	-	8,077	226,251	126,073
16	371.1	Pumping Equipment - Lift Stations	3.00%	10.00%	65,322	-	9,179	74,501	-	31,480	31,480	-	150,931	1,530,818	1,223,056
17	371.2	Other Pumping Equipment	3.00%	10.00%	2,243	-		2,243	-	-	-	-	10,232	103,441	36,728
18	371.3	Pumping Equipment - Recharge Wells	3.00%	10.00%	52,091	-		52,091	-	20,374	20,374	-	140,968	1,425,535	1,130,007
19	374	Reuse Distribution Reserviors	3.00%	2.50%	-	-		-	-	-	-	-	-	-	-
20	375	Reuse Transmission and Distribution	3.00%	2.00%	-	-		-	-	-	-	-	2,684	134,184	35,217
21	380	Treatment & Disposal Equipment	3.00%	5.00%	80,127	-	13,212	93,339	-	21,123	21,123	-	493,059	9,897,283	5,730,370
22	381	Plant Sewers	3.00%	5.00%	-	-		-	-	-	-	-	-	-	-
23	382	Outfall Sewer Lines	3.00%	3.33%	-	-		-	-	-	-	-	-	-	-
24	389	Other Plant & Misc Equipment	3.00%	6.67%	-	-		-	-	-	-	-	64,866	972,509	585,769
25	390	Office Furniture & Equipment	3.00%	6.67%	2,975	-		2,975	-	-	-	-	336	6,529	896
26	390.1	Computers & Software	3.00%	20.00%	3,867	-		3,867	-	-	-	-	1,790	10,884	8,564
27	391	Transportation Equipment	3.00%	20.00%	-	-		-	-	-	-	-	-	21,830	21,830
28	392	Stores Equipment	3.00%	4.00%	-	-		-	-	-	-	-	-	-	-
29	393	Tools, Shop & Garage Equipment	3.00%	10.00%	-	-		-	-	-	-	-	15,478	154,777	132,416
30	394	Laboratory Equipment	3.00%	10.00%	-	-		-	-	-	-	-	199	1,993	1,694
31	395	Power Operated Equipment	3.00%	5.00%	-	-		-	-	-	-	-	0	0	(1,016)
32	396	Communication Equipment	3.00%	10.00%	-	-		-	-	-	-	-	11,883	118,828	69,450
33	397	Miscellaneous Equipment	3.00%	10.00%	-	-		-	-	-	-	-	-	-	-
34	398	Other Tangible Plant	3.00%		-	-		-	-	-	-	-	-	-	-
35															
36		Sub Total			279,976	-	22,391	302,367	-	72,977	72,977	-	1,035,629	21,322,832	11,082,595
37															
38		Post-In Service AFUDC		4.52%									32,396	716,722	421,146
39															
40		TOTAL			279,976	-	22,391	302,367	-	72,977	72,977	-	1,068,025	22,039,554	11,503,741
41															
42		Depreciable Plant												21,231,304	
43		Composite Depreciation Rate												5.0304%	
44															
45		[1] Shaded cells are per Decision No. 62184. Other cells per Staf													
46															

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Original Cost Rate Base Proforma Adjustments
Adjustment Number 2

Exhibit
Rebuttal Schedule B-2
Page 4
Witness: Bourassa

Accumulated Depreciation

Line No.	Acct. No.	Description	Direct Adjusted Accum. Depr.	A Depr. Related to Capitalized Expenses	B Prior Case Adjustments	Adjustments C Difference to Computed Balance	D Intentionally Left Blank	E Intentionally Left Blank	Rebuttal Adjusted Accum. Depr.
6	351	Organization Cost	-			-			-
7	352	Franchise Cost	-			-			-
8	353	Land and Land Rights	-			-			-
9	354	Structures & Improvements	84,144			-			84,144
10	355	Power Generation Equipment	-			-			-
11	360	Collection Sewers - Force	15,117			-			15,117
12	361.1	Collection Sewers - Gravity	1,206,261			-			1,206,261
13	361.2	Manholes & Cleanouts	529,549			-			529,549
14	362	Special Collecting Structures	-			-			-
15	363	Servcies to Customers	146,469			-			146,469
16	364	Flow Measuring Devices	-			-			-
17	365	Flow Measuring Installations	-			-			-
18	366	Reuse Services	-			-			-
19	367	Reuse Meters and Meter Installations	-			-			-
20	370	Receiving Wells	126,073			-			126,073
21	371.1	Pumping Equipment - Lift Stations	1,250,667	459	(28,070)	(0)			1,223,056
22	371.2	Other Pumping Equipment	36,728			-			36,728
23	371.3	Pumping Equipment - Recharge Wells	1,142,980		(12,973)	-			1,130,007
24	374	Reuse Distribution Reserviors	-			-			-
25	375	Reuse Transmission and Distribution	36,340		(1,123)	-			35,217
26	380	Treatment & Disposal Equipment	5,730,039	330		-			5,730,370
27	381	Plant Sewers	-			-			-
28	382	Outfall Sewer Lines	-			-			-
29	389	Other Plant & Misc Equipment	585,769			-			585,769
30	390	Office Furniture & Equipment	896			-			896
31	390.1	Computers & Software	8,564			-			8,564
32	391	Transportation Equipment	21,830			-			21,830
33	392	Stores Equipment	-			-			-
34	393	Tools, Shop & Garage Equipment	134,132		(1,715)	(0)			132,416
35	394	Laboratory Equipment	1,694			-			1,694
36	395	Power Operated Equipment	(1,016)			-			(1,016)
37	396	Communication Equipment	69,450			-			69,450
38	397	Miscellaneous Equipment	-			-			-
39	398	Other Tangible Plant	-			-			-
40		Post-in-service AFUDC	421,146						421,146
41		TOTALS	$ 11,546,833	$ 789	$ (43,881)	$ (0)	$ -	$ -	$ 11,503,741
42									
43		Accumulated Depreciation per Direct							$ 11,546,833
44									
45		Increase (decrease) in Accumulated Depreciation							$ (43,092)
46									
47		Adjustment to Accumulated Depreciation							$ (43,092)
48									
49		SUPPORTING SCHEDULES							
50		B-2, pages 4.1 and 4.2							
51		B-2, pages 3.3 to 3.20							

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
B-2 Adjustment 2 - A
Depreciation Related to Capitalized Expenses

Exhibit
Rebuttal Schedule B-2
Page 4.1
Witness: Bourassa

Line No.	Plant Acct	Description	Amount	Depr Rate	Years	Depreciation
1	371.1	Pumping Equipment - Lift Station	$ 9,179	10.00%	0.5	$ 459
2	380	Treatment & Disposal Equipment	13,212	5.00%	0.5	330
3					0.5	-
4						
5		Total				$ 789
6						
7						
8	Increase in Accumulated Depreciation					$ 789
9						
10						
11						
12						
13						
14						
15						
16	Reference/Supporting Schedule					
17	RUCO Rate Base Adjustment No. 3, Schedule TJC-6					
18						
19						
20						
21						
22						
23						
24						
25						

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
B-2 Adjustment 2 - B
Prior Rate Case Plant

Exhibit
Rebuttal Schedule B-2
Page 4.2
Witness: Bourassa

Line No.	Plant Acct	Description		Amount
1	371.1	Pumping Equipment - Lift Stations	$	(28,400)
2	371.3	Pumping Equipment - Recharge Wells		(12,973)
3	375	Reuse Transmission and Distribution		(1,123)
4	393	Tools, Shop & Garage Equipment		(1,423)
5				
6		Total	$	(43,920)
7				
8				
9	Increase in Plant-in-Service		$	(43,920)
10				
11				
12				
13				
14				
15				
16				
17	Reference/Supporting Schedule			
18	RUCO Rate Base Adjustment No. 1, Schedule TJC-3			
19				
20				
21				
22				
23				
24				
25				
26				

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
B-2 Adjustment 3
Reclassify AIAC to CIAC

Exhibit
Rebuttal Schedule B-2
Page 5
Witness: Bourassa

Line No.		
1	Advances-in-aid of Construction related to bankrupt developer	$ 285,313
2	Unrefunded AIAC related to bankrupt developer	58,099
3		
4	Total	$ 343,412
5		
6		
7	Increase (Decrease) in AIAC	$ (285,313)
8		
9		
10	Increase (Decrease) in CIAC	$ 343,412
11		
12		
13		
14		
15	Reference/Supporting Schedule	
16	RUCO Rate Base Adjustment No. 2, Schedule TJC-5	
17		
18		
19		
20		
21		
22		
23		
24		

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Computation of Working Capital

Exhibit
Rebuttal Schedule B-5
Page 1
Witness: Bourassa

Line No.			
1	Cash Working Capital (1/8 of Allowance		
2	Operation and Maintenance Expense)	$	145,942
3	Pumping Power (1/24 of Pumping Power)		5,597
4	Purchased Water (1/24 of Purchased Water)		-
5			
6			
7			
8			
9	Total Working Capital Allowance	$	151,539
10			
11			
12	Working Capital Requested	$	-
13			
14			
15			
16			
17		Adjusted Test Year	
18	Total Operating Expense	$	2,580,167
19	Less:		
20	Income Tax	$	139,867
21	Property Tax		124,635
22	Depreciation		1,013,793
23	Purchased Water		-
24	Pumping Power		134,337
25	Allowable Expenses	$	1,167,535
26	1/8 of allowable expenses	$	145,942
27			
28			
29	SUPPORTING SCHEDULES:	RECAP SCHEDULES:	
30	E-1	B-1	
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Income Statement

Exhibit
Rebuttal Schedule C-1
Page 1
Witness: Bourassa

Line No.		Test Year Book Results	Adjustment	Test Year Adjusted Results	Proposed Rate Increase	Adjusted with Rate Increase
1	**Revenues**					
2	Flat Rate Revenues	$ 2,997,389	$ -	$ 2,997,389	$ 417,329	$ 3,414,718
3	Metered Revenues	93,356	-	93,356		93,356
4	Other Revenues	6,030	-	6,030		6,030
5		$ 3,096,775	$ -	$ 3,096,775	$ 417,329	$ 3,514,104
6	**Operating Expenses**					
7	Salaries and Wages	$ 345,644	-	$ 345,644		$ 345,644
8	Salaries and Wages - Off. and Dir.	90,294	(50,096)	40,198		40,198
9	Employee Pensions and Benefits	115,720	-	115,720		115,720
10	Purchased Power	134,337	-	134,337		134,337
11	Chemicals	84,059	-	84,059		84,059
12	Materials and Supplies	184,532	(22,391)	162,141		162,141
13	Office Supplies and Expense	188,906	(460)	188,446		188,446
14	Contractual Services - Engineering	20,305	(19,524)	781		781
15	Contractual Services - Accounting	3,067	-	3,067		3,067
16	Contractual Services - Legal	108	-	108		108
17	Contractual Services - Other	61,500	(7,138)	54,362		54,362
18	Contractual Services - Water Testing	15,729	12,157	27,886		27,886
19	Rents - Equipment	698	-	698		698
20	Transportation Expenses	28,808	-	28,808		28,808
21	Insurance - Vehicle	3,067	-	3,067		3,067
22	Insurance - General Liability	20,916	-	20,916		20,916
23	Insurance - Worker's Comp	222	-	222		222
24	Reg. Comm. Exp.	-	-	-		-
25	Reg. Comm. Exp. - Rate Case	50,000	(50,000)	-		-
26	Bad Debt Expense	9,509	-	9,509		9,509
27	Miscellaneous Expense	2,174	6,354	8,528		8,528
28	Depreciation Expense	1,010,700	3,093	1,013,793		1,013,793
29	Amortization of Deferred Operating Costs	62,925	-	62,925		62,925
30	Taxes Other Than Income	10,449	-	10,449		10,449
31	Property Taxes	125,916	(1,281)	124,635	5,595	130,230
32	Income Tax	85,405	54,462	139,867	113,203	253,070
33			-	-		-
34	**Total Operating Expenses**	$ 2,654,991	$ (74,824)	$ 2,580,167	$ 118,798	$ 2,698,965
35	**Operating Income**	$ 441,784	$ 74,824	$ 516,608	$ 298,531	$ 815,139
36	**Other Income (Expense)**					
37	Interest Income	97	-	97		97
38	Other income	52	-	52		52
39	Interest Expense	(220,131)	72,370	(147,762)		(147,762)
40	Other Expense	(1,639)	-	(1,639)		(1,639)
41	Gain/Loss Sale of Fixed Assets	-	-	-		-
42	**Total Other Income (Expense)**	$ (221,621)	$ 72,370	$ (149,251)	$ -	$ (149,251)
43	**Net Profit (Loss)**	$ 220,163	$ 147,194	$ 367,357	$ 298,531	$ 665,888
44						
45	SUPPORTING SCHEDULES:				RECAP SCHEDULES:	
46	C-1, page 2				A-1	
47	E-2					
48						

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Income Statement

Exhibit
Rebuttal Schedule C-1
Page 2.1
Witness: Bourassa

Line No.		LABEL>>>>> Test Year Book Results	1 Depreciation	2 Property Taxes	3 Rate Case Expense	4 Salaries & Wages	5 Office Supplies and Expense	6 Materials and Supplies	7 Contractual Services - Engineering	8 Contractual Services - Testing	9 Contractual Services - Other
1	**Revenues**										
2	Flat Rate Revenues	$ 2,997,389									
3	Metered Revenues	93,356									
4	Other Revenues	6,030									
5		$ 3,096,775	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	**Operating Expenses**										
7	Salaries and Wages	$ 345,644									
8	Salaries and Wages - Off. and Dir.	90,294				(50,096)					
9	Employee Pensions and Benefits	115,720									
10	Purchased Power	134,337									
11	Chemicals	84,059									
12	Materials and Supplies	184,532						(22,391)			
13	Office Supplies and Expense	188,906					(460)				
14	Contractual Services - Engineering	20,305							(19,524)		
15	Contractual Services - Accounting	3,067									
16	Contractual Services - Legal	108									
17	Contractual Services - Other	61,500									(7,138)
18	Contr. Services - Water Testing	15,729								12,157	
19	Rents - Equipment	698									
20	Transportation Expenses	28,808									
21	Insurance - Vehicle	3,067									
22	Insurance - General Liability	20,916									
23	Insurance - Worker's Comp	222									
24	Reg. Comm. Exp.	-									
25	Reg. Comm. Exp. - Rate Case	50,000			(50,000)						
26	Bad Debt Expense	9,509									
27	Miscellaneous Expense	2,174									
28	Depreciation Expense	1,010,700	3,093								
29	Amortization of Deferred Op. Costs	62,925									
30	Taxes Other Than Income	10,449									
31	Property Taxes	125,916		(1,281)							
32	Income Tax	85,405									
33											
34	**Total Operating Expenses**	$ 2,654,991	$ 3,093	$ (1,281)	$ (50,000)	$ (50,096)	$ (460)	$ (22,391)	$ (19,524)	$ 12,157	$ (7,138)
35	**Operating Income**	$ 441,784	$ (3,093)	$ 1,281	$ 50,000	$ 50,096	$ 460	$ 22,391	$ 19,524	$ (12,157)	$ 7,138
36	**Other Income (Expense)**										
37	Interest Income	97									
38	Other income	52									
39	Interest Expense	(220,131)									
40	Other Expense	(1,639)									
41	Gain/Loss Sale of Fixed Assets	-									
42	**Total Other Income (Expense)**	$ (221,621)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
43	**Net Profit (Loss)**	$ 220,163	$ (3,093)	$ 1,281	$ 50,000	$ 50,096	$ 460	$ 22,391	$ 19,524	$ (12,157)	$ 7,138
44											
45	SUPPORTING SCHEDULES:										
46	C-2										
47	E-2										

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Income Statement

Exhibit
Rebuttal Schedule C-1
Page 2.2
Witness: Bourassa

Line No.		10 Bank Fees	11 Intentionally Left Blank	12 Intentionally Left Blank	13 Intentionally Left Blank	14 Intentionally Left Blank	15 Intentionally Left Blank	16 Interest Syncrhronization	17 Income tax	Test Year Adjusted Results	Proposed Rate Increase	Adjusted with Rate Increase
1	**Revenues**											
2	Flat Rate Revenues									$ 2,997,389	$ 417,329	$ 3,414,718
3	Metered Revenues									93,356		93,356
4	Other Revenues									6,030		6,030
5		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,096,775	$ 417,329	$ 3,514,104
6	**Operating Expenses**											
7	Salaries and Wages									$ 345,644		$ 345,644
8	Salaries and Wages - Off. and Dir.									40,198		40,198
9	Employee Pensions and Benefits									115,720		115,720
10	Purchased Power									134,337		134,337
11	Chemicals									84,059		84,059
12	Materials and Supplies									162,141		162,141
13	Office Supplies and Expense									188,446		188,446
14	Contractual Services - Engineering									781		781
15	Contractual Services - Accounting									3,067		3,067
16	Contractual Services - Legal									108		108
17	Contractual Services - Other									54,362		54,362
18	Contr. Services - Water Testing									27,886		27,886
19	Rents - Equipment									698		698
20	Transportation Expenses									28,808		28,808
21	Insurance - Vehicle									3,067		3,067
22	Insurance - General Liability									20,916		20,916
23	Insurance - Worker's Comp									222		222
24	Reg. Comm. Exp.									-		-
25	Reg. Comm. Exp. - Rate Case									-		-
26	Bad Debt Expense									9,509		9,509
27	Miscellaneous Expense	6,354								8,528		8,528
28	Depreciation Expense									1,013,793		1,013,793
29	Amortization of Deferred Op. Costs									62,925		62,925
30	Taxes Other Than Income									10,449		10,449
31	Property Taxes									124,635	5,595	130,230
32	Income Tax								54,462	139,867	113,203	253,070
33												
34	**Total Operating Expenses**	$ 6,354	$ -	$ -	$ -	$ -	$ -	$ -	$ 54,462	$ 2,580,167	$ 118,798	$ 2,698,965
35	**Operating Income**	$ (6,354)	$ -	$ -	$ -	$ -	$ -	$ -	$ (54,462)	$ 516,608	$ 298,531	$ 815,139
36	**Other Income (Expense)**											
37	Interest Income									97		97
38	Other income									52		52
39	Interest Expense							72,370		(147,762)		(147,762)
40	Other Expense									(1,639)		(1,639)
41	Gain/Loss Sale of Fixed Assets									-		-
42	**Total Other Income (Expense)**	$ -	$ -	$ -	$ -	$ -	$ -	$ 72,370	$ -	$ (149,251)	$ -	$ (149,251)
43	**Net Profit (Loss)**	$ (6,354)	$ -	$ -	$ -	$ -	$ -	$ 72,370	$ (54,462)	$ 367,357	$ 298,531	$ 665,888
44												
45	SUPPORTING SCHEDULES:											
46	C-2											
47	E-2											

RECAP SCHEDULES:
C-1, page 1

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Adjustments to Revenues and Expenses

Exhibit
Rebuttal Schedule C-2
Page 1
Witness: Bourassa

Adjustments to Revenues and Expenses

Line No.		1	2	3	4	5	6	Subtotal
1								
2		Depreciation	Property	Rate Case	Salaries &	Office Supplies	Materials	
3		Expense	Taxes	Expense	Wages	and Expense	and Supplies	
4	Revenues							-
5								
6	Expenses	3,093	(1,281)	(50,000)	(50,096)	(460)	(22,391)	(121,135)
7								
8	Operating							
9	Income	(3,093)	1,281	50,000	50,096	460	22,391	121,135
10								
11	Interest							
12	Expense							-
13	Other							
14	Income /							-
15	Expense							
16								
17	Net Income	(3,093)	1,281	50,000	50,096	460	22,391	121,135

Adjustments to Revenues and Expenses

		7	8	9	10	11	12	Subtotal
20								
21								
22		Contractual	Contractual	Contractual		Intentionally	Intentionally	
23		Services -	Services -	Services -	Bank	Left	Left	
24		Engineering	Testing	Other	Fees	Blank	Blank	
25	Revenues							-
26								
27	Expenses	(19,524)	12,157	(7,138)	6,354	-	-	(129,286)
28								
29	Operating							
30	Income	19,524	(12,157)	7,138	(6,354)	-	-	129,286
31								
32	Interest							
33	Expense			-				-
34	Other							
35	Income /							-
36	Expense							
37								
38	Net Income	19,524	(12,157)	7,138	(6,354)	-	-	129,286

Adjustments to Revenues and Expenses

		13	14	15	16	17	18	Total
39								
40								
41								
42								
43		Intentionally	Intentionally	Intentionally			Intentionally	
44		Left	Left	Left	Interest		Left	
45		Blank	Blank	Blank	Syncrhronization	Income tax	Blank	
46	Revenues							-
47								
48	Expenses					54,462		(74,824)
49								
50	Operating							
51	Income	-	-	-	-	(54,462)	-	74,824
52								
53	Interest							
54	Expense				72,370			72,370
55	Other							
56	Income /							-
57	Expense							
58								
59	Net Income	-	-	-	72,370	(54,462)	-	147,194

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Adjustments to Revenues and Expenses
Adjustment Number 1

Exhibit
Rebuttal Schedule C-2
Page 2
Witness: Bourassa

Depreciation Expense

Line No.	Acct. No.	Description	Adjusted Original Cost	Proposed Rates	Depreciation Expense	
1						
2						
3						
4						
5	351	Organization Cost	-	0.00%	-	
6	352	Franchise Cost	-	0.00%	-	
7	353	Land and Land Rights	91,528	0.00%	-	
8	354	Structures & Improvements	250,433	3.33%	8,339	
9	355	Power Generation Equipment	-	5.00%	-	
10	360	Collection Sewers - Force	97,523	2.00%	1,950	
11	361.1	Collection Sewers - Gravity	3,854,512	2.00%	77,090	
12	361.2	Manholes & Cleanouts	1,791,722	2.00%	35,834	
13	362	Special Collecting Structures	-	2.00%	-	
14	363	Servcies to Customers	632,249	2.00%	12,645	
15	364	Flow Measuring Devices	-	10.00%	-	
16	365	Flow Measuring Installations	-	10.00%	-	
17	366	Reuse Services	-	2.00%	-	
18	367	Reuse Meters and Meter Installations	-	8.33%	-	
19	370	Receiving Wells	226,251	3.57%	8,077	
20	371.1	Pumping Equipment - Lift Stations	1,530,818	10.00%	153,082	
21	371.2	Other Pumping Equipment	103,441	10.00%	10,344	
22	371.3	Pumping Equipment - Recharge Wells	1,425,535	10.00%	142,554	
23	374	Reuse Distribution Reserviors	-	2.50%	-	
24	375	Reuse Transmission and Distribution	134,184	2.00%	2,684	
25	380	Treatment & Disposal Equipment	9,897,283	5.00%	494,864	
26	381	Plant Sewers	-	5.00%	-	
27	382	Outfall Sewer Lines	-	3.33%	-	
28	389	Other Plant & Misc Equipment	972,509	6.67%	64,866	
29	390	Office Furniture & Equipment	6,529	6.67%	435	
30	390.1	Computers & Software	10,884	20.00%	2,177	
31	391	Transportation Equipment	21,830	20.00%	-	*
32	392	Stores Equipment	-	4.00%	-	
33	393	Tools, Shop & Garage Equipment	154,777	10.00%	15,478	
34	394	Laboratory Equipment	1,993	10.00%	199	
35	395	Power Operated Equipment	0	5.00%	0	
36	396	Communication Equipment	118,828	10.00%	11,883	
37	397	Miscellaneous Equipment	-	10.00%	-	
38	398	Other Tangible Plant	-	10.00%	-	
39		Post-in-service AFUDC	716,722	4.52%	32,396	
40						
41		TOTALS	$ 22,039,554		$ 1,074,898	
42						
43			Gross CIAC	Amort. Rate		
44	Less: Amortization of Contributions		$ 1,281,106	4.7698%	$ (61,106)	
45	Total Depreciation Expense				$ 1,013,793	
46						
47	Adjusted Test Year Depreciation Expense				1,010,700	
48						
49	Increase (decrease) in Depreciation Expense				3,093	
50						
51	Adjustment to Revenues and/or Expenses				$ 3,093	
52						
53	SUPPORTING SCHEDULE					
54	B-2, page 3					

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 2

Exhibit
Rebuttal Schedule C-2
Page 3
Witness: Bourassa

Property Taxes

Line No.	DESCRIPTION	Test Year as adjusted	Company Recommended
1	Company Adjusted Test Year Revenues - 2007	$ 3,096,775	$ 3,096,775
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	6,193,550	6,193,550
4	Company Recommended Revenue	3,096,775	3,514,104
5	Subtotal (Line 4 + Line 5)	9,290,325	9,707,654
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	3,096,775	3,235,885
8	Department of Revenue Mutilplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	6,193,550	6,471,769
10	Plus: 10% of CWIP - 2010	3,971	3,971
11	Less: Net Book Value of Licensed Vehicles	-	-
12	Full Cash Value (Line 9 + Line 10 - Line 11)	6,197,521	6,475,740
13	Assessment Ratio	20.0%	20.0%
14	Assessment Value (Line 12 * Line 13)	1,239,504	1,295,148
15	Composite Property Tax Rate - Obtained from ADOR	10.0552%	10.0552%
16	Test Year Adjusted Property Tax Expense (Line 14 * Line 15)	$ 124,635	$ 130,230
17	Tax on Parcels	-	-
18	Total Property Taxes (Line 16 + Line 17)	$ 124,635	
19	Test Year Property Taxes	$ 125,916	
20	Adjustment to Test Year Property Taxes (Line 18 - Line 19)	**$ (1,281)**	
21			
22	Property Tax on Company Recommended Revenue (Line 16 + Line 17)		$ 130,230
23	Company Test Year Adjusted Property Tax Expense (Line 18)		$ 124,635
24	Increase in Property Tax Due to Increase in Revenue Requirement		**$ 5,595**
25			
26	Increase in Property Tax Due to Increase in Revenue Requirement (Line 24)		$ 5,595
27	Increase in Revenue Requirement		$ 417,329
28	Increase in Property Tax Per Dollar Increase in Revenue (Line 26 / Line 27)		1.34070%
29			
30			
31			
32			
33			
34			
35			
36			
37			
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39			
40			

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 3

Exhibit
Rebuttal Schedule C-2
Page 4
Witness: Bourassa

Rate Case Expense

No.			
1			
2			
3			
4			
5			
6			
7	Annual Rate Case Expense per Direct	$	50,000
8			
9	Amount to include in operating expenses	$	-
10			
11			
12	Increase(decrease) Rate Case Expense	$	(50,000)
13			
14	Adjustment to Revenue and/or Expense	$	(50,000)
15			
16			
17			
18			
19	REFERENCE		
20	See Testimony		
21			

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 4

Exhibit
Rebuttal Schedule C-2
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Witness: Bourassa

Salaries and Wages - Offices and Directors

Line No.			
1			
2	Proposed Salaries and Wages for Officers and Directors	$	40,198
3			
4	Test Year Salaries and Wages - Officers and Directors	$	90,294
5			
6	Increase (decrease) in Salaries and Wages - Officers and Directors	$	(50,096)
7			
8			
9	Adjustment to Revenue and/or Expense	$	(50,096)
10			
11			
12			
13	REFERENCE		
14	See Testimony		
15			
16			
17			
18			
19			
20			

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 5

Exhibit
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Page 6
Witness: Bourassa

Office Supplies and Expense

Line No.			
1			
2			
3			
4	Remove coffee service expense	$	460
5			
6			
7			
8	Increase (decrease) in Office Supplies and Expense	$	(460)
9			
10			
11	Adjustment to Revenue and/or Expense	$	(460)
12			
13	REFERENCE/SUPPORTING SCHEDULES		
14	Staff Adjustment No. 4, Schedule CSB-12		
15			
16			
17			
18			
19			
20			

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 6

Exhibit
Rebuttal Schedule C-2
Page 7
Witness: Bourassa

Materials and Supplies Expense

Line No.			
1			
2			
3	Remove capitalized expenses from Material and Supplies expense	$	22,391
4			
5	Total	$	22,391
6			
7			
8	Increase (decrease) in Materials and Supplies	$	(22,391)
9			
10			
11	Adjustment to Revenue and/or Expense	$	(22,391)
12			
13	REFERENCE/SUPPORTING SCHEDULES		
14	Staff Adjustment No. 3, Schedule CSB-11		
15			
16			
17			
18			
19			
20			

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 7

Exhibit
Rebuttal Schedule C-2
Page 8
Witness: Bourassa

Contractual Services - Engineering

Line No.			
1			
2	Remove capitalized expenses from Contractual Services - Eng.	$	19,524
3			
4			
5			
6			
7	Increase (decrease) in Contractual Services - Eng.	$	(19,524)
8			
9			
10	Adjustment to Revenue and/or Expense	$	(19,524)
11			
12	REFERENCE/SUPPORTING SCHEDULES		
13	Staff Adjustment No. 5, Schedule CSB-13		
14			
15			
16			
17			
18			
19			
20			

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 8

Exhibit
Rebuttal Schedule C-2
Page 9
Witness: Bourassa

Contractual Services - Testing

Line No.			
1			
2	Staff Recommended Testing Expenses	$	27,886
3			
4	Test Year Testing Expenses	$	15,729
5			
6	Increase (decrease) in Testing Expense	$	12,157
7			
8			
9		$	12,157
10			
11			
12			
13			
14			
15			
16	REFERENCE/SUPPORTING SCHEDULES		
17	Staff Adjustment No. 7, Schedule CSB-15		
18			
19			
20			

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2001
Adjustment to Revenues and Expenses
Adjustment Number 9

Exhibit
Rebuttal Schedule C-2
Page 10
Witness: Bourassa

Contractual Services - Other

Line No.			
1			
2	IDA Bond Fees	$	6,700
3	Bonuses		438
4	Total		7,138
5			
6			
7	Increase (decrease) in Contractual Services - Other	$	(7,138)
8			
9			
10	Adjustment to Revenue and/or Expense	$	(7,138)
11			
12	REFERENCE/SUPPORTING SCHEDULES		
13	Staff Adjustment No. 6, Schedule CSB-14		
14			
15			
16			
17			
18			
19			
20			

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 10

Exhibit
Schedule C-2
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Witness: Bourassa

Miscellaneous Expense

Line No.			
1			
2			
3			
4	Bank fees recorded on Water Division's books	$	6,354
5			
6			
7			
8	Increase (decrease) in Miscellaneous Expense	$	6,354
9			
10			
11	Adjustment to Revenue and/or Expense	$	6,354
12			
13	REFERENCE/SUPPORTING SCHEDULES		
14	RUCO Adjustment No. 6, Schedule TJC-14		
15			
16			
17			
18			
19			
20			

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Adjustment to Revenues and Expenses
Adjustment Number 16

Exhibit
Rebuttal Schedule C-2
Page 12
Witness: Bourassa

Interest Synchronization

Line No.			
1			
2			
3			
4	Fair Value Rate Base	$ 9,832,800	
5	Weighted Cost of Debt	1.50%	
6	Interest Expense		$ 147,762
7			
8	Test Year Interest Expense		$ 220,131
9			
10	Increase (decrease) in Interest Expense		(72,370)
11			
12			
13			
14	Adjustment to Revenue and/or Expense		$ 72,370
15			
16			
17	Weighted Cost of Debt Computation		

18						Weighted
19			Amount	Percent	Cost	Cost
20	Debt	$	8,370,000	35.36%	4.25%	1.50%
21	Equity	$	15,301,736	64.64%	10.50%	6.79%
22	Total	$	23,671,736	100.00%		8.29%

23
24
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Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Adjustment to Revenues and/or Expenses
Adjustment Number 17

Exhibit
Rebuttal Schedule C-2
Page 13
Witness: Bourassa

Line No.			Test Year Adjusted Results	Adjusted with Rate Increase
1	Income Tax Computation			
2				
3				
4				
5				
6	Revenue		$ 3,096,775	$ 3,514,104
7	Operating Expenses Excluding Income Taxes		2,440,300	2,445,895
8	Synchronized Interest		147,762	147,762
9				
10	Income Before Taxes		$ 508,714	$ 920,447
11				
12	Arizona Income Before Taxes		$ 508,714	$ 920,447
13				
14	Less: Effective Arizona Income Tax		$ 22,504	$ 40,718
15	Rate =	4.42% [1]		
16				
17				
18				
19				
20	Federal Income Before Taxes		$ 508,714	$ 920,447
21				
22	Less Arizona Income Taxes		$ 22,504	$ 40,718
23				
24	Federal Taxable Income		$ 486,210	$ 879,730
25				
26				
27				
28	FEDERAL INCOME TAXES:			
29	Effective Federal Tax Rate	24.14% [1]	$ 117,363	$ 212,352
30				
31				
32				
33				
34				
35	Federal Income Taxes		$ 117,363	$ 212,352
36				
37				
38	Total Income Tax		$ 139,867	$ 253,070
39				
40	Overall Tax Rate		27.49%	27.49%
41				
42	Income Tax		$ 139,867	$ 253,070
43	Adjusted Test Year Income tax Expense		85,405	139,867
44	Adjustment to Income Tax Expense		$ 54,462	$ 113,203
45				
46				
47	[1] See work papers/testimony			
48				

Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010
Computation of Gross Revenue Conversion Factor

Exhibit
Rebuttal Schedule C-3
Page 1
Witness: Bourassa

Line No.	Description	Percentage of Incremental Gross Revenues
1	Combined Federal and State Effective Income Tax Rate	27.4942%
2		
3	Property Taxes	0.9721%
4		
5		
6	Total Tax Percentage	28.4663%
7		
8	Operating Income % = 100% - Tax Percentage	71.5337%
9		
10		
11		
12		
13	1 = Gross Revenue Conversion Factor	
14	Operating Income %	1.3979
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25	SUPPORTING SCHEDULES:	RECAP SCHEDULES:
26	C-3, page 2	A-1
27		
28		
29		
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Pima UtilityCompany - Wastewater Division
Test Year Ended December 31, 2010

Exhibit
Rebuttal Schedule C-3
Page 2
Witness: Bourassa

GROSS REVENUE CONVERSION FACTOR

Line No.	Description	(A)	(B)	(C)	(D)	[E]	[F]
	Calculation of Gross Revenue Conversion Factor:						
1	Revenue	100.0000%					
2	Uncollecible Factor (Line 11)	0.0000%					
3	Revenues (L1 - L2)	100.0000%					
4	*Combined Federal and State Income Tax and Property Tax Rate (Line 23)*	28.4663%					
5	Subtotal (L3 - L4)	71.5337%					
6	**Revenue Conversion Factor (L1 / L5)**	1.397942					
	Calculation of Uncollectible Factor:						
7	Unity	100.0000%					
8	Combined Federal and State Tax Rate (Line 17)	27.4942%					
9	One Minus Combined Income Tax Rate (L7 - L8)	72.5058%					
10	Uncollectible Rate	0.0000%					
11	Uncollectible Factor (L9 * L10)		0.0000%				
	Calculation of Effective Tax Rate:						
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%					
13	Arizona State Income Tax Rate	4.4237%					
14	Federal Taxable Income (L12 - L13)	95.5763%					
15	Applicable Federal Income Tax Rate (Line 54)	24.1383%					
16	Effective Federal Income Tax Rate (L14 x L15)	23.0705%					
17	Combined Federal and State Income Tax Rate (L13 +L16)		27.4942%				
	Calculation of Effective Property Tax Factor						
18	Unity	100.0000%					
19	Combined Federal and State Income Tax Rate (L17)	27.4942%					
20	*One Minus Combined Income Tax Rate (L18-L19)*	72.5058%					
21	Property Tax Factor	1.3407%					
22	Effective Property Tax Factor (L20*L21)		0.9721%				
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			28.4663%			
24	Required Operating Income	$ 815,139					
25	AdjustedTest Year Operating Income (Loss)	$ 516,608					
26	Required Increase in Operating Income (L24 - L25)		$ 298,531				
27	Income Taxes on Recommended Revenue (Col. (E), L52)	$ 253,070					
28	Income Taxes on Test Year Revenue (Col. (F), L52)	$ 139,867					
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		$ 113,203				
30	Recommended Revenue Requirement	$ 3,514,104					
31	Uncollectible Rate (Line 10)	0.0000%					
32	Uncollectible Expense on Recommended Revenue (L30 * L31)	$ -					
33	Adjusted Test Year Uncollectible Expense	$ -					
34	Required Increase in Revenue to Provide for Uncollectible Exp.		$ -				
35	Property Tax with Recommended Revenue	$ 130,230					
36	*Property Tax on Test Year Revenue*	$ 124,635					
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		$ 5,595				
38	Total Required Increase in Revenue (L26 + L29 + L37)		$ 417,329				

		(A)	(B)	(C)	(D)	[E]	[F]
		Test Year			Company Recommended		
		Total			Total		
	Calculation of Income Tax:	Pima UtilityCompany - Wastewater Division			Pima UtilityCompany - Wastewater Division		
39	Revenue	$ 3,096,775	$ 3,096,775		$ 3,514,104	$ 3,514,104	
40	Operating Expenses Excluding Income Taxes	$ 2,440,300	$ 2,440,300		$ 2,445,895	$ 2,445,895	
41	Synchronized Interest (L58)	$ 147,762	$ 147,762	$ -	$ 147,762	$ 147,762	
42	Arizona Taxable Income (L39 - L40 - L41)	$ 508,714	$ 508,714	$ -	$ 920,448	$ 920,448	$ -
43	Arizona State Effective Income Tax Rate (see work papers)	4.4237%	4.4237%	4.4237%	4.4237%	4.4237%	4.4237%
44	Arizona Income Tax (L42 x L43)	$ 22,504	$ 22,504	$ -	$ 40,718	$ 40,718	$ -
45	Federal Taxable Income (L42 - L44)	$ 486,210	$ 486,210	$ -	$ 879,731	$ 879,731	$ -
46	Effective Tax Rate (see work papers)	24.1383%	24.1383%		24.1383%	24.1383%	
47	Federal Income Tax (L45 x L46)	$ 117,363	$ 117,363	$ -	$ 212,352	$ 212,352	$ -
48							
49							
50							
51	Total Federal Income Tax	$ 117,363	$ 117,363	$ -	$ 212,352	$ 212,352	$ -
52	Combined Federal and State Income Tax (L35 + L42)	$ 139,867	$ 139,867	$ -	$ 253,070	$ 253,070	$ -

53 COMBINED Applicable Federal Income Tax Rate [Col. [D], L51 - Col. [A], L51] / [Col. [D], L45 - Col. [A], L45]
54 WATER Applicable Federal Income Tax Rate [Col. [E], L51 - Col. [B], L51] / [Col. [E], L45 - Col. [B], L45] 24.1383%
55

	Calculation of Interest Synchronization:		N/A
56	Rate Base	$ 9,832,800	$ -
57	Weighted Average Cost of Debt	1.5027%	0.0000%
58	Synchronized Interest (L56 x L57)	$ 147,762	$ -

Pima Utility Company - Wastewater Division
Revenue Summary
Test Year Ended December 31, 2010

Exhibit
Rebuttal Schedule H-1
Page 1
Witness: Bourassa

Line No.	Meter Size	Classification	Total Revenues at Present Rates	Total Revenues at Proposed Rates	Dollar Change	Percent Change	Percent of Present Water Revenues	Percent of Proposed Water Revenues	Additional Bills	Additional Gallons Treated
1	5/8x3/4 Inch	Residential	$ 2,658,546	$ 3,037,389	$ 378,843	14.25%	85.85%	86.43%		
2	1 Inch	Residential	145,477	166,208	20,730	14.25%	4.70%	4.73%		
3										
4	5/8x3/4 Inch	Commercial	$ 6,410	$ 7,323	$ 913	14.25%	0.21%	0.21%		
5	3/4 Inch	Commercial	1,272	1,453	181	14.25%	0.04%	0.04%		
6	1 Inch	Commercial	16,909	19,319	2,410	14.25%	0.55%	0.55%		
7	1 1/2 Inch	Commercial	12,672	14,477	1,806	14.25%	0.41%	0.41%		
8	2 Inch	Commercial	115,770	132,267	16,497	14.25%	3.74%	3.76%		
9										
10	Effluent 1		44,582	43,793	(788)	-1.77%	1.44%	1.25%		
11	Effluent 2		76,930	74,216	(2,715)	-3.53%	2.48%	2.11%		
12										
13	**Subtotals of Revenues**		$ 3,078,568	$ 3,496,446	$ 417,878	13.57%	99.41%	99.50%		
14	**Revenue Annualizations:**									
15	5/8x3/4 Inch	Residential	$ (1,046)	$ (1,195)	$ (149)	14.25%	-0.03%	-0.03%	(46)	(138,000)
16	1 Inch	Residential	1,899	2,169	271	14.25%	0.06%	0.06%	32	96,000
17										
18	5/8x3/4 Inch	Commercial	$ 136	$ 156	$ 19	14.25%	0.00%	0.00%	6	18,000
19	3/4 Inch	Commercial	-	-	-	0.00%	0.00%	0.00%	0	-
20	1 Inch	Commercial	(1,246)	(1,423)	(178)	14.25%	-0.04%	-0.04%	(21)	(63,000)
21	1 1/2 Inch	Commercial	-	-	-	0.00%	0.00%	0.00%	-	-
22	2 Inch	Commercial	1,124	1,284	160	14.25%	0.04%	0.04%	6	18,000
23										
24	Effluent - water sales recovered effluent		12,496	11,849	(646)	-5.17%	0.40%	0.34%	12	
25										
26										
27	**Subtotal Revenue Annualization**		13,363	12,840	(523)	-3.91%	0.43%	0.41%	(11)	(69,000)
28										
29	**Total Revenues w/ Annualization**		$ 3,091,931	$ 3,509,286	$ 417,355	13.50%	99.84%	99.86%		
30	**Misc Revenues**		6,030	6,030	-	0.00%	0.19%	0.17%		
31	**Reconciling Amount**		(1,186)	(1,212)	(27)	2.28%	-0.04%	-0.03%		
32	**Total Revenues**		$ 3,096,775	$ 3,514,104	$ 417,328	13.48%	100.00%	100.00%		
33										
34										

Pima Utility Company - Wastewater Division
Analysis of Revenue by Detailed Class
Test Year Ended December 31, 2010

Exhibit
Rebuttal Schedule H-2
Page 1
Witness: Bourassa

Line No.	Customer Classification and/or Meter Size		(a) Average Number of Customers at 12/31/2010	Average Consumption	Average Bill Present Rates	Average Bill Proposed Rates	Proposed Increase Dollar Amount	Proposed Increase Percent Amount	Percent of Customers
1	5/8x3/4 Inch	Residential	9,747	-	$ 22.73	$ 25.97	$ 3.24	14.25%	96.85%
2	1 Inch	Residential	204	-	59.33	67.78	8.45	14.25%	2.03%
3									
4	5/8x3/4 Inch	Commercial	24	-	$ 22.73	$ 25.97	$ 3.24	14.25%	0.23%
5	3/4 Inch	Commercial	3	-	35.33	40.36	5.03	14.25%	0.03%
6	1 Inch	Commercial	24	-	59.33	67.78	8.45	14.25%	0.24%
7	1 1/2 Inch	Commercial	9	-	117.33	134.05	16.72	14.25%	0.09%
8	2 Inch	Commercial	52	-	187.33	214.02	26.69	14.25%	0.51%
9									
10	Irrigation		2	4,059,941	$ 2,476.77	$ 2,432.97	$ (43.80)	-1.77%	0.01%
11									
12									
13									
14									
15									
16									
17									
18	Totals		10,063						100.00%
19									
20	Actual Year End Number								
21	of Customers:		10,058						
22									
23									
24									
25									

Pima Utility Company - Wastewater Division
Analysis of Revenue by Detailed Class
Test Year Ended December 31, 2010

Exhibit
Rebuttal Schedule H-2
Page 2
Witness: Bourassa

Line No.	Customer Classification and/or Meter Size		(a) Average Number of Customers at 12/31/2010	Median Consumption	Median Bill Present Rates	Median Bill Proposed Rates	Proposed Increase Dollar Amount	Proposed Increase Percent Amount	Percent of Customers
1	5/8x3/4 Inch	Residential	9,747	-	$ 22.73	$ 25.97	$ 3.24	14.25%	96.85%
2	1 Inch	Residential	204	-	59.33	67.78	8.45	14.25%	2.03%
3									
4	5/8x3/4 Inch	Commercial	24	-	$ 22.73	$ 25.97	$ 3.24	14.25%	0.23%
5	3/4 Inch	Commercial	3	-	$ 35.33	$ 40.36	5.03	14.25%	0.03%
6	1 Inch	Commercial	24	-	$ 59.33	$ 67.78	8.45	14.25%	0.24%
7	1 1/2 Inch	Commercial	9	-	117.33	134.05	16.72	14.25%	0.09%
8	2 Inch	Commercial	52	-	187.33	214.02	26.69	14.25%	0.51%
9									
10	Irrigation		2	1,784,000	$ 1,156.72	$ 1,181.20	$ 24.48	2.12%	0.01%
11									
12									
13									
14									
15									
16									
17	Totals		10,063						100.00%
18									
19	Actual Year End Number								
20	of Customers:		10,058						
21									
22									
23									
24									

Pima Utility Company - Wastewater Division
Test Year Ended December 31, 2010
Present and Proposed Rates

Exhibit
Rebuttal Schedule H-3
Page 1

Line No.		Present Rates	Proposed Rates	Change	Percent Change
1	Sewer Services				
2	5/8x3/4 Inch	$ 22.73	$ 25.97	$ 3.24	14.25%
2	3/4 Inch	35.33	40.36	5.03	14.25%
3	1 Inch	59.33	67.78	8.45	14.25%
4	1 1/2 Inch	117.33	134.05	16.72	14.25%
5	2 Inch	187.33	214.02	26.69	14.25%
6	3 Inch	NT	415.50	415.50	
7	4 Inch	NT	649.23	649.23	
8	6 Inch	NT	1,298.45	1,298.45	
9					
10	Effluent Sales				
11	Monthly Minimum	180.00	200.00	20.00	11.11%
12	Gallons In Minimum	100,000	-		
13	Charge per 1,000 gallons	$ 0.58	$ 0.55	(0.03)	-5.17%
14					
15	Recovered Effluent Sales				
16	Monthly Minimum	NT	$ 200.00		
17	Gallons In Minimum	NT	$ -		
18	Charge per 1,000 gallons	NT	$ 0.55		
19					
20					
21	Service Charges				
22	Impact Fee (new connection one-time only)	$ 260.00	NT		
23	Establishment Fee	NT	$ 25.00		
24	Reestablishment (within 12 months)	NT	*		
25	Deferred payment (per month)	1.50%	1.50%		
26	Deposit	**	**		
27	Deposit Interest	**	**		
28	NSF check	$ 15.00	$ 15.00		
29	Late payment fee (per month)***	1.50%	1.50%		
30	Disconnect/Reconnect (delinquent account)	$ 500.00	NT		
31	Reconnection (Delinquent)	NT	$ 25.00		
32	After Hours Servie Charge	NT	$ 50.00		
33					
34	* Number of months off the system times the applicable sewer charge.				
35	** Per Commission Rule R14-2-603.B.7 and 603.B.3				
36	*** Late payment chrge based upon balance owing at the end of the billing cycle which is added to next bill.				
37					
38	[1] Recovered effluent was charged at the Water Division irrigation rate of $0.36 per 1,000 gallons during the test year.				
39					
40	NT = No Tariff				

Pima Utility Company - Wastewater Division
Bill Comparison of Present and Proposed Rates
Customer Classification Residential 5/8x3/4 Inch Meter
Test Year Ended December 31, 2010
(Excludes all Revenue Related Taxes)

Exhibit
Schedule H-4
Page 1
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 22.73	$ 25.97	$ 3.24	14.25%
1,000	22.73	25.97	$ 3.24	14.25%
2,000	22.73	25.97	$ 3.24	14.25%
3,000	22.73	25.97	$ 3.24	14.25%
4,000	22.73	25.97	$ 3.24	14.25%
5,000	22.73	25.97	$ 3.24	14.25%
6,000	22.73	25.97	$ 3.24	14.25%
7,000	22.73	25.97	$ 3.24	14.25%
8,000	22.73	25.97	$ 3.24	14.25%
9,000	22.73	25.97	$ 3.24	14.25%
10,000	22.73	25.97	$ 3.24	14.25%
12,000	22.73	25.97	$ 3.24	14.25%
14,000	22.73	25.97	$ 3.24	14.25%
16,000	22.73	25.97	$ 3.24	14.25%
18,000	22.73	25.97	$ 3.24	14.25%
20,000	22.73	25.97	$ 3.24	14.25%
25,000	22.73	25.97	$ 3.24	14.25%
30,000	22.73	25.97	$ 3.24	14.25%
35,000	22.73	25.97	$ 3.24	14.25%
40,000	22.73	25.97	$ 3.24	14.25%
45,000	22.73	25.97	$ 3.24	14.25%
50,000	22.73	25.97	$ 3.24	14.25%
60,000	22.73	25.97	$ 3.24	14.25%
70,000	22.73	25.97	$ 3.24	14.25%
80,000	22.73	25.97	$ 3.24	14.25%
90,000	22.73	25.97	$ 3.24	14.25%
100,000	22.73	25.97	$ 3.24	14.25%
Average Usage				
-	$ 22.73	$ 25.97	$ 3.24	14.25%
Median Usage				
-	$ 22.73	$ 25.97	$ 3.24	14.25%

Present Rates:
Monthly Minimum: $ 22.73

Proposed Rates:
Monthly Minimum: $ 25.97

Pima Utility Company - Wastewater Division
Bill Comparison of Present and Proposed Rates
Customer Classification Residential 1 Inch Meter
Test Year Ended December 31, 2010
(Excludes all Revenue Related Taxes)

Exhibit
Schedule H-4
Page 2
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 59.33	$ 67.78	$ 8.45	14.25%
1,000	59.33	67.78	$ 8.45	14.25%
2,000	59.33	67.78	$ 8.45	14.25%
3,000	59.33	67.78	$ 8.45	14.25%
4,000	59.33	67.78	$ 8.45	14.25%
5,000	59.33	67.78	$ 8.45	14.25%
6,000	59.33	67.78	$ 8.45	14.25%
7,000	59.33	67.78	$ 8.45	14.25%
8,000	59.33	67.78	$ 8.45	14.25%
9,000	59.33	67.78	$ 8.45	14.25%
10,000	59.33	67.78	$ 8.45	14.25%
12,000	59.33	67.78	$ 8.45	14.25%
14,000	59.33	67.78	$ 8.45	14.25%
16,000	59.33	67.78	$ 8.45	14.25%
18,000	59.33	67.78	$ 8.45	14.25%
20,000	59.33	67.78	$ 8.45	14.25%
25,000	59.33	67.78	$ 8.45	14.25%
30,000	59.33	67.78	$ 8.45	14.25%
35,000	59.33	67.78	$ 8.45	14.25%
40,000	59.33	67.78	$ 8.45	14.25%
45,000	59.33	67.78	$ 8.45	14.25%
50,000	59.33	67.78	$ 8.45	14.25%
60,000	59.33	67.78	$ 8.45	14.25%
70,000	59.33	67.78	$ 8.45	14.25%
80,000	59.33	67.78	$ 8.45	14.25%
90,000	59.33	67.78	$ 8.45	14.25%
100,000	59.33	67.78	$ 8.45	14.25%
Average Usage				
-	$ 59.33	$ 67.78	$ 8.45	14.25%
Median Usage				
-	$ 59.33	$ 67.78	$ 8.45	14.25%

Present Rates:
Monthly Minimum: $ 59.33

Proposed Rates:
Monthly Minimum: $ 67.78

Pima Utility Company - Wastewater Division
Bill Comparison of Present and Proposed Rates
Customer Classification Commercial 5/8x3/4 Inch Meter
Test Year Ended December 31, 2010
(Excludes all Revenue Related Taxes)

Exhibit
Schedule H-4
Page 3
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 22.73	$ 25.97	$ 3.24	14.25%
1,000	22.73	25.97	$ 3.24	14.25%
2,000	22.73	25.97	$ 3.24	14.25%
3,000	22.73	25.97	$ 3.24	14.25%
4,000	22.73	25.97	$ 3.24	14.25%
5,000	22.73	25.97	$ 3.24	14.25%
6,000	22.73	25.97	$ 3.24	14.25%
7,000	22.73	25.97	$ 3.24	14.25%
8,000	22.73	25.97	$ 3.24	14.25%
9,000	22.73	25.97	$ 3.24	14.25%
10,000	22.73	25.97	$ 3.24	14.25%
12,000	22.73	25.97	$ 3.24	14.25%
14,000	22.73	25.97	$ 3.24	14.25%
16,000	22.73	25.97	$ 3.24	14.25%
18,000	22.73	25.97	$ 3.24	14.25%
20,000	22.73	25.97	$ 3.24	14.25%
25,000	22.73	25.97	$ 3.24	14.25%
30,000	22.73	25.97	$ 3.24	14.25%
35,000	22.73	25.97	$ 3.24	14.25%
40,000	22.73	25.97	$ 3.24	14.25%
45,000	22.73	25.97	$ 3.24	14.25%
50,000	22.73	25.97	$ 3.24	14.25%
60,000	22.73	25.97	$ 3.24	14.25%
70,000	22.73	25.97	$ 3.24	14.25%
80,000	22.73	25.97	$ 3.24	14.25%
90,000	22.73	25.97	$ 3.24	14.25%
100,000	22.73	25.97	$ 3.24	14.25%
Average Usage				
-	$ 22.73	$ 25.97	$ 3.24	14.25%
Median Usage				
-	$ 22.73	$ 25.97	$ 3.24	14.25%

Present Rates:
Monthly Minimum: $ 22.73

Proposed Rates:
Monthly Minimum: $ 25.97

Pima Utility Company - Wastewater Division
Bill Comparison of Present and Proposed Rates
Customer Classification Commercial 3/4 Inch Meter
Test Year Ended December 31, 2010
(Excludes all Revenue Related Taxes)

Exhibit
Schedule H-4
Page 4
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 35.33	$ 40.36	$ 5.03	14.25%
1,000	35.33	40.36	$ 5.03	14.25%
2,000	35.33	40.36	$ 5.03	14.25%
3,000	35.33	40.36	$ 5.03	14.25%
4,000	35.33	40.36	$ 5.03	14.25%
5,000	35.33	40.36	$ 5.03	14.25%
6,000	35.33	40.36	$ 5.03	14.25%
7,000	35.33	40.36	$ 5.03	14.25%
8,000	35.33	40.36	$ 5.03	14.25%
9,000	35.33	40.36	$ 5.03	14.25%
10,000	35.33	40.36	$ 5.03	14.25%
12,000	35.33	40.36	$ 5.03	14.25%
14,000	35.33	40.36	$ 5.03	14.25%
16,000	35.33	40.36	$ 5.03	14.25%
18,000	35.33	40.36	$ 5.03	14.25%
20,000	35.33	40.36	$ 5.03	14.25%
25,000	35.33	40.36	$ 5.03	14.25%
30,000	35.33	40.36	$ 5.03	14.25%
35,000	35.33	40.36	$ 5.03	14.25%
40,000	35.33	40.36	$ 5.03	14.25%
45,000	35.33	40.36	$ 5.03	14.25%
50,000	35.33	40.36	$ 5.03	14.25%
60,000	35.33	40.36	$ 5.03	14.25%
70,000	35.33	40.36	$ 5.03	14.25%
80,000	35.33	40.36	$ 5.03	14.25%
90,000	35.33	40.36	$ 5.03	14.25%
100,000	35.33	40.36	$ 5.03	14.25%
Average Usage				
-	$ 35.33	$ 40.36	$ 5.03	14.25%
Median Usage				
-	$ 35.33	$ 40.36	$ 5.03	14.25%

Present Rates:
Monthly Minimum: $ 35.33

Proposed Rates:
Monthly Minimum: $ 40.36

Pima Utility Company - Wastewater Division
Bill Comparison of Present and Proposed Rates
Customer Classification Commercial 1 Inch Meter
Test Year Ended December 31, 2010

Exhibit
Schedule H-4
Page 5
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 59.33	$ 67.78	$ 8.45	14.25%
1,000	59.33	67.78	$ 8.45	14.25%
2,000	59.33	67.78	$ 8.45	14.25%
3,000	59.33	67.78	$ 8.45	14.25%
4,000	59.33	67.78	$ 8.45	14.25%
5,000	59.33	67.78	$ 8.45	14.25%
6,000	59.33	67.78	$ 8.45	14.25%
7,000	59.33	67.78	$ 8.45	14.25%
8,000	59.33	67.78	$ 8.45	14.25%
9,000	59.33	67.78	$ 8.45	14.25%
10,000	59.33	67.78	$ 8.45	14.25%
12,000	59.33	67.78	$ 8.45	14.25%
14,000	59.33	67.78	$ 8.45	14.25%
16,000	59.33	67.78	$ 8.45	14.25%
18,000	59.33	67.78	$ 8.45	14.25%
20,000	59.33	67.78	$ 8.45	14.25%
25,000	59.33	67.78	$ 8.45	14.25%
30,000	59.33	67.78	$ 8.45	14.25%
35,000	59.33	67.78	$ 8.45	14.25%
40,000	59.33	67.78	$ 8.45	14.25%
45,000	59.33	67.78	$ 8.45	14.25%
50,000	59.33	67.78	$ 8.45	14.25%
60,000	59.33	67.78	$ 8.45	14.25%
70,000	59.33	67.78	$ 8.45	14.25%
80,000	59.33	67.78	$ 8.45	14.25%
90,000	59.33	67.78	$ 8.45	14.25%
100,000	59.33	67.78	$ 8.45	14.25%
Average Usage				
-	$ 59.33	$ 67.78	$ 8.45	14.25%
Median Usage				
-	$ 59.33	$ 67.78	$ 8.45	14.25%

Present Rates:
Monthly Minimum: $ 59.33

Proposed Rates:
Monthly Minimum: $ 67.78

Pima Utility Company - Wastewater Division
Bill Comparison of Present and Proposed Rates
Customer Classification Commercial 1.5 Inch Meter
Test Year Ended December 31, 2010

Exhibit
Schedule H-4
Page 6
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 117.33	$ 134.05	$ 16.72	14.25%
1,000	117.33	134.05	$ 16.72	14.25%
2,000	117.33	134.05	$ 16.72	14.25%
3,000	117.33	134.05	$ 16.72	14.25%
4,000	117.33	134.05	$ 16.72	14.25%
5,000	117.33	134.05	$ 16.72	14.25%
6,000	117.33	134.05	$ 16.72	14.25%
7,000	117.33	134.05	$ 16.72	14.25%
8,000	117.33	134.05	$ 16.72	14.25%
9,000	117.33	134.05	$ 16.72	14.25%
10,000	117.33	134.05	$ 16.72	14.25%
12,000	117.33	134.05	$ 16.72	14.25%
14,000	117.33	134.05	$ 16.72	14.25%
16,000	117.33	134.05	$ 16.72	14.25%
18,000	117.33	134.05	$ 16.72	14.25%
20,000	117.33	134.05	$ 16.72	14.25%
25,000	117.33	134.05	$ 16.72	14.25%
30,000	117.33	134.05	$ 16.72	14.25%
35,000	117.33	134.05	$ 16.72	14.25%
40,000	117.33	134.05	$ 16.72	14.25%
45,000	117.33	134.05	$ 16.72	14.25%
50,000	117.33	134.05	$ 16.72	14.25%
60,000	117.33	134.05	$ 16.72	14.25%
70,000	117.33	134.05	$ 16.72	14.25%
80,000	117.33	134.05	$ 16.72	14.25%
90,000	117.33	134.05	$ 16.72	14.25%
100,000	117.33	134.05	$ 16.72	14.25%
Average Usage				
-	$ 117.33	$ 134.05	$ 16.72	14.25%
Median Usage				
-	$ 117.33	$ 134.05	$ 16.72	14.25%

Present Rates:
Monthly Minimum: $ 117.33

Proposed Rates:
Monthly Minimum: $ 134.05

Pima Utility Company - Wastewater Division
Bill Comparison of Present and Proposed Rates
Customer Classification Commerical 2 Inch Meter
Test Year Ended December 31, 2010

Exhibit
Schedule H-4
Page 7
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 187.33	$ 214.02	$ 26.69	14.25%
1,000	187.33	214.02	$ 26.69	14.25%
2,000	187.33	214.02	$ 26.69	14.25%
3,000	187.33	214.02	$ 26.69	14.25%
4,000	187.33	214.02	$ 26.69	14.25%
5,000	187.33	214.02	$ 26.69	14.25%
6,000	187.33	214.02	$ 26.69	14.25%
7,000	187.33	214.02	$ 26.69	14.25%
8,000	187.33	214.02	$ 26.69	14.25%
9,000	187.33	214.02	$ 26.69	14.25%
10,000	187.33	214.02	$ 26.69	14.25%
12,000	187.33	214.02	$ 26.69	14.25%
14,000	187.33	214.02	$ 26.69	14.25%
16,000	187.33	214.02	$ 26.69	14.25%
18,000	187.33	214.02	$ 26.69	14.25%
20,000	187.33	214.02	$ 26.69	14.25%
25,000	187.33	214.02	$ 26.69	14.25%
30,000	187.33	214.02	$ 26.69	14.25%
35,000	187.33	214.02	$ 26.69	14.25%
40,000	187.33	214.02	$ 26.69	14.25%
45,000	187.33	214.02	$ 26.69	14.25%
50,000	187.33	214.02	$ 26.69	14.25%
60,000	187.33	214.02	$ 26.69	14.25%
70,000	187.33	214.02	$ 26.69	14.25%
80,000	187.33	214.02	$ 26.69	14.25%
90,000	187.33	214.02	$ 26.69	14.25%
100,000	187.33	214.02	$ 26.69	14.25%

Present Rates:
Monthly Minimum: $ 187.33

Proposed Rates:
Monthly Minimum: $ 214.02

Average Usage				
-	$ 187.33	$ 214.02	$ 26.69	14.25%
Median Usage				
-	$ 187.33	$ 214.02	$ 26.69	14.25%

Pima Utility Company - Wastewater Division
Bill Comparison of Present and Proposed Rates
Customer Classification Effluent Sales 1
Test Year Ended December 31, 2010

Exhibit
Schedule H-4
Page 8
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 180.00	$ 200.00	$ 20.00	11.11%
1,000	180.00	200.55	$ 20.55	11.42%
2,000	180.00	201.10	$ 21.10	11.72%
3,000	180.00	201.65	$ 21.65	12.03%
4,000	180.00	202.20	$ 22.20	12.33%
5,000	180.00	202.75	$ 22.75	12.64%
6,000	180.00	203.30	$ 23.30	12.94%
7,000	180.00	203.85	$ 23.85	13.25%
8,000	180.00	204.40	$ 24.40	13.56%
9,000	180.00	204.95	$ 24.95	13.86%
10,000	180.00	205.50	$ 25.50	14.17%
12,000	180.00	206.60	$ 26.60	14.78%
14,000	180.00	207.70	$ 27.70	15.39%
16,000	180.00	208.80	$ 28.80	16.00%
18,000	180.00	209.90	$ 29.90	16.61%
20,000	180.00	211.00	$ 31.00	17.22%
25,000	180.00	213.75	$ 33.75	18.75%
30,000	180.00	216.50	$ 36.50	20.28%
35,000	180.00	219.25	$ 39.25	21.81%
40,000	180.00	222.00	$ 42.00	23.33%
45,000	180.00	224.75	$ 44.75	24.86%
50,000	180.00	227.50	$ 47.50	26.39%
60,000	180.00	233.00	$ 53.00	29.44%
70,000	180.00	238.50	$ 58.50	32.50%
80,000	180.00	244.00	$ 64.00	35.56%
90,000	180.00	249.50	$ 69.50	38.61%
100,000	180.00	255.00	$ 75.00	41.67%
Average Usage				
4,059,941	$ 2,476.77	$2,432.97	$ (43.80)	-1.77%
Median Usage				
1,784,000	$ 1,156.72	$1,181.20	$ 24.48	2.12%

Present Rates:

Monthly Minimum:	$	180.00
Gallons in Minimum		100,000
Charge Per 1,000 Gallons		
All Gallons	$	0.58

Proposed Rates:

Monthly Minimum:	$	200.00
Gallons in Minimum		-
Charge Per 1,000 Gallons		
All Gallons	$	0.55

Pima Utility Company - Wastewater Division
Bill Comparison of Present and Proposed Rates
Customer Classification Effluent Sales 2
Test Year Ended December 31, 2010

Exhibit
Schedule H-4
Page 9
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 180.00	$ 200.00	$ 20.00	11.11%
1,000	180.00	200.55	$ 20.55	11.42%
2,000	180.00	201.10	$ 21.10	11.72%
3,000	180.00	201.65	$ 21.65	12.03%
4,000	180.00	202.20	$ 22.20	12.33%
5,000	180.00	202.75	$ 22.75	12.64%
6,000	180.00	203.30	$ 23.30	12.94%
7,000	180.00	203.85	$ 23.85	13.25%
8,000	180.00	204.40	$ 24.40	13.56%
9,000	180.00	204.95	$ 24.95	13.86%
10,000	180.00	205.50	$ 25.50	14.17%
12,000	180.00	206.60	$ 26.60	14.78%
14,000	180.00	207.70	$ 27.70	15.39%
16,000	180.00	208.80	$ 28.80	16.00%
18,000	180.00	209.90	$ 29.90	16.61%
20,000	180.00	211.00	$ 31.00	17.22%
25,000	180.00	213.75	$ 33.75	18.75%
30,000	180.00	216.50	$ 36.50	20.28%
35,000	180.00	219.25	$ 39.25	21.81%
40,000	180.00	222.00	$ 42.00	23.33%
45,000	180.00	224.75	$ 44.75	24.86%
50,000	180.00	227.50	$ 47.50	26.39%
60,000	180.00	233.00	$ 53.00	29.44%
70,000	180.00	238.50	$ 58.50	32.50%
80,000	180.00	244.00	$ 64.00	35.56%
90,000	180.00	249.50	$ 69.50	38.61%
100,000	180.00	255.00	$ 75.00	41.67%
Average Usage				
8,632,224	$ 5,128.69	$4,947.72	$ (180.97)	-3.53%
Median Usage				
6,029,361	$ 3,619.03	$3,516.15	$ (102.88)	-2.84%

Present Rates:

Monthly Minimum:	$	180.00
Gallons in Minimum		100,000
Charge Per 1,000 Gallons		
All Gallons	$	0.58

Note: Present rates reflect the Water Division ir
This was an error.

Proposed Rates:

Monthly Minimum:	$	200.00
Gallons in Minimum		-
Charge Per 1,000 Gallons		
All Gallons	$	0.55

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Attorneys for Pima Utility Company

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF PIMA UTILITY 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-02199A-11-0329
IN THE MATTER OF THE APPLICATION OF PIMA UTILITY 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-02199A-11-0330

REBUTTAL TESTIMONY OF

THOMAS J. BOURASSA

(COST OF CAPITAL)

April 27, 2012

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I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND ADDRESS.

A. My name is Thomas J. Bourassa. My business address is 139 W. Wood Drive, Phoenix, Arizona 85029.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS CASE?

A. I am testifying on behalf of the applicant, Pima Utilities Company ("Pima" or the "Company").

Q. ARE YOU THE SAME THOMAS J. BOURASSA THAT FILED DIRECT TESTIMONY IN THIS DOCKET?

A. Yes, my direct testimony was presented in two volumes. My background information and qualifications are set forth in the rate base and revenue requirement volume of my direct testimony.

Q. DID YOU ALSO PREPARE REBUTTAL TESTIMONY ON THOSE ISSUES IN THIS DOCKET?

A. Yes, my rebuttal testimony on rate base, income statement, revenue requirement and rate design is being filed in a separate volume at the same time as this testimony. In this volume, I present my cost of capital rebuttal testimony.

II. SUMMARY OF REBUTTAL TESTIMONY AND THE PROPOSED COST OF CAPITAL FOR THE COMPANY

A. Summary of Company's Rebuttal Recommendation

Q. WHAT IS THE SCOPE OF THIS VOLUME OF YOUR REBUTTAL TESTIMONY?

A. I will provide updates of my cost of capital analysis and recommended rate of return using more recent financial data. I also will provide rebuttal as appropriate to the direct testimony of Staff witness John Cassidy and RUCO witness William Rigsby.

Q. HOW HAS THE INDICATED RETURN ON EQUITY CHANGED SINCE THE DIRECT FILING WAS MADE LAST AUGUST?

A. The cost of equity has increased somewhat, as indicated by the Discounted Cash Flow ("DCF") model and the Capital Asset Pricing Model ("CAPM"). The table below summarizes the results of my updated analysis using those models:

Method	Low	High	Midpoint
Range DCF Constant Growth Estimates	9.7%	11.3%	10.5%
Range of CAPM Estimates	8.2%	13.7%	10.9%
Average of DCF and CAPM midpoint estimates	8.9%	12.5%	10.7%
Financial Risk Adjustment	-0.3%	-0.3%	-0.3%
Specific Company Risk Premium	0.5%	1.0%	0.8%
Indicated Cost of Equity	**9.1%**	**13.2%**	**11.2%**

The schedules containing my updated cost of capital analysis are attached to this rebuttal testimony. Also attached is one rebuttal exhibit (TJB-COC-RB1) which is discussed below.

While my updated cost of capital analysis indicates an 11.2 percent return on equity, I am recommending a cost of equity at the lower end of the range indicated. My recommendation of a 10.5 percent ROE balances my judgment about the degree of financial and business risk associated with an investment in Pima as well as consideration of the current economic environment and the Company's desire to help reduce the impact on rate payers.

Q. HAVE YOU UPDATED YOUR COST OF EQUITY ESTIMATE FOR PIMA USING DUFF & PHELPS RISK PREMIUM STUDY DATA?

A. Yes as shown in Rebuttal Exhibit TJB-COC-RB1. I have included cost of equity estimates for the water sample companies. These estimates have been adjusted for leverage (financial risk) differences between the companies in the size portfolios contained in the study and the water sample companies and Pima. Further, like the Build-up Method cost of equity estimate using the *Morningstar* data, the cost of equity estimates includes a water industry risk premium adjustment.[1] I have also used the last data from *Duff & Phelps* risk premium study which uses data from 1963 through 2011.[2] Based on various measures of size the results are as follows[3]:

Stock Symbol	Company	Cost of Equity
AWR	American States Water Co.	10.69%
WTR	Aqua America	9.01%
CWT	California Water Services Group	11.18%
CTWS	Connecticut Water Services	12.55%
MSEX	Middlesex Water Company	11.93%
SJW	SJW Corp.	11.90%
	Average	11.21%
	Pima Utility Company	14.46%

The updated 11.21 percent average for the water utility sample is near the middle of the range of overall results based on the CAPM and DCF. My CAPM

[1] Note that the risk premium for the water utility industry is negative indicating that water utilities are less risky than the market as a whole.
[2] Duff & Phelps LLC, *Risk Premium Report 2012*.
[3] *See* Exhibit TJB-COC-RB1 at Table 6.

estimate of 10.9 percent (mid-point) for the sample water utilities, my DCF estimate of 10.5 percent (mid-point) for the sample water utilities, and my overall recommendation of 10.5 percent for Pima is conservative compared to the 11.21 percent average for the publicly traded utilities and the 14.46 percent indicated cost of equity for Pima based upon the *Duff & Phelps* study data. It also shows that my size premium used in my cost of capital analysis of 50 to 100 basis points is likely far too low and should be much higher. Even accounting for differences in financial risk due to differences in the capital structures, the indicated cost of equity for Pima based on the *Duff & Phelps* study is 325 basis points higher than the sample water companies. The 325 basis points indicated higher cost of equity is well within the range of the size premium estimates shown on Rebuttal Schedule D-4.16.

Despite a clear indication that a size premium is warranted, my recommendation of 10.5 percent for all practical purposes excludes any size premium for Pima over the publicly traded water utilities. It is also 20 basis points less than the 10.7 percent indicated cost of equity of the publicly traded water utilities.

Q. DO THE COST OF EQUITY ESTIMATES BASED ON DUFF & PHELPS TAKE INTO CONSIDERATION THE DIFFERENCES IN LEVERAGE BETWEEN THE PUBLICLY TRADED SAMPLE WATER UTILITIES AND PIMA?

A. Yes.

Q. HAVE YOU ACCOUNTED FOR THE FACT THAT THE WATER UTILITY INDUSTRY IS LESS RISKY THAN THE MARKET?

A. Yes. Based on the industry data, each of above estimates based on the *Duff & Phelps* Study is adjusted downward for the water utility industry risk based upon

the water industry risk premium found in *Morningstar*. As shown in Table 5 of Rebuttal Exhibit TJB-COC-RB1, the appropriate downward financial risk adjustment is approximately 315 basis points.

Q. WHAT WAS THE ASSUMED HISTORICAL MARKET RISK PREMIUM USED IN THE DUFF AND PHELPS STUDY AND YOUR ESTIMATED COST OF EQUITY?

A. The *Duff & Phelps* study uses a historical market risk premium of 4.3 percent. I used a current market risk premium estimate of 5.5 percent for my calculations. The 5.5 percent is based on the current recommendations of the authors of the *Duff & Phelps* study.[4] In contrast, the long-horizon equity risk premia as determined by *Morningstar* is 6.6 percent.[5]

Q. PLEASE SUMMARIZE YOUR RECOMMENDED REBUTTAL COST OF CAPITAL COMPONENTS.

A. The Company's recommended capital structure consists of approximately 35.4 percent debt and 64.6 percent common equity as shown on Rebuttal Schedule D-1. Based on my updated cost of capital analysis, I am recommending a cost of equity of 10.5 percent. Based on my 10.5 percent recommended cost of equity and a 4.25 percent cost of debt, the Company's weighted average cost of capital ("WACC") is 8.29 percent, as shown on Rebuttal Schedule D-1.

Q. HAS THE COMPANY'S PROPOSED CAPITAL STRUCTURE CHANGED?

A. Yes. Based on comments from Staff witness, Mr. Cassidy,[6] I have revised my recommendation for the capital structure from the 31.1 percent debt and 68.9 percent equity contained in the direct filing. Still, my recommended capital

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[4] Business Valuation Resources, *BVWire*, March 2012.
[5] Morningstar. *Ibbotson SBBI 2011 Valuation Yearbook*. Table A-1.
[6] *See* Direct Testimony of John A. Cassidy ("Cassidy Dt.") at 7.

structure is different than Staff's due to what I believe is a computational error contained in Staff's debt and equity balances. A computation of the Company proposed capital structure is included as Rebuttal Schedule D-1, page 2.

Q. HAS THE COMPANY'S PROPOSED COST OF DEBT ALSO CHANGED?

A. Yes. The recommended cost of debt in my direct testimony was 7.182 percent. The Company is now recommending a 4.25 percent cost of debt. The 4.25 percent is still an estimate at this time because the Company has not yet finalized the new loan of $8,370,000 authorized in Decision No. 73078 (April 5, 2012). However, the Company currently expects the effective cost of debt to be around 4.25 percent, a rate well below the 5.5 percent maximum authorized in the decision. I will provide further update once the loan becomes final.

Q. YOUR RECOMMENDED COST OF EQUITY FOR PIMA HAS NOT CHANGED EVEN THOUGH IT APPEARS THAT YOUR COST OF EQUITY ESTIMATES FOR THE PUBLICLY TRADED WATER UTILITIES ARE HIGHER IN YOUR REBUTTAL. CAN YOU EXPLAIN?

A. My cost of equity estimates for the sample water utilities has increased to 10.7 percent from 10.3 percent in the direct filing. The increase in my rebuttal cost of equity estimates is the result of a combination of a number of factors. These include: 1) lower consensus estimates of long-term interest rates which are used in my CAPM estimates; 2) a higher estimate of the current market risk premium used in my current market risk premium CAPM estimate; and, 3) a higher estimate of growth for the water utility stocks used in my DCF model. These changes have all been impacted by the change in the economic and market conditions and forward-looking expectations of both the economy and the water utility industry.

Q. HOW HAVE ECONOMIC CONDITIONS CHANGED SINCE YOU PREPARED YOUR COST OF CAPITAL ANALYSIS IN AUGUST 2011?

A. During the past eight months, both the economy and the financial markets have improved somewhat. The stock market, while generally volatile, has moved upwards significantly. The Dow Jones Industrial Average has risen from around 11,000 in late August 2011 to just around 13,000 at the time of this rebuttal filing. The S&P 500 index has moved from around 1,200 in late August 2011 to over 1,400 in early April 2012. The unemployment rate has also dropped from 9.1 percent to 8.2 percent.

The economy (real GDP) grew by an annualized rate of 3.0 percent in the fourth quarter of 2011 compared to 1.8 percent in the third quarter of 2011.[7] More recently, the real GDP growth for the first quarter of 2012 was recently reported at an annualized rate of only 2.1 percent;[8] lower than the expected 2.8 percent.[9] For the rest of 2012, the economy is expected to grow at a modest 2.3 percent to 2.7 percent.[10] The outlook for growth in the U.S. economy has improved over recent months but is still expected to be modest through 2012 and into 2013. Economists continue to express concerns over the federal deficits and the high federal debt, likely recession in the Eurozone along with its lingering debt crisis, rising oil prices, and continued sluggishness in the housing market. These all continue to be risks to future economic growth in the U.S.[11]

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[7] *Blue Chip Financial Forecasts*, April 2012.
[8] *Id.*
[9] *Blue Chip Financial Forecasts*, August 2011.
[10] *Blue Chip Financial Forecasts*, April 2012.
[11] *Id.*

Q. HOW HAS THE ANALYSTS' OUTLOOK FOR THE WATER UTILITY INDUSTRY CHANGED SINCE YOU PREPARED YOUR COST OF CAPITAL ANALYSIS IN AUGUST 2011?

A. The outlook for the Water Utility Industry hasn't changed much other than the recent earnings reports were disappointing causing investors to look elsewhere for stability. *Value Line* continues to espouse the view that despite a more business friendly regulatory environment for the water utility companies, the industry is facing ever higher operating costs that are likely to continue to outpace revenues. *Value Line* also continues to identify concerns over infrastructure costs to replace rapidly decaying infrastructures while at the same time most in this group are strapped for cash.[12] Thus, the long-term outlook for water utility stocks remains subdued.

B. <u>Summary of Staff and RUCO recommendations</u>

Q. PLEASE SUMMARIZE THE RESPECTIVE RECOMMENDATIONS OF STAFF AND RUCO FOR THE RATE OF RETURN ON FAIR VALUE RATE BASE.

A. Staff is recommending a capital structure consisting of 37.9 percent debt and 62.1 percent equity.[13] Staff determined a cost of equity of 9.1 percent based on the average cost of equity produced by its DCF and CAPM models.[14] Staff uses a sample of six publicly traded water utilities, the same as those I used in my analysis. Staff did not consider firm size and firm-specific risks in it analysis. Staff also uses a cost of debt of 5.5 percent.[15] The 5.5 percent is the maximum

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[12] *Value Line*, April 20, 2012.
[13] Cassidy Dt. at 33.
[14] *Id.* at 35.
[15] *Id.*

interest rate set forth in the recent financing decision for Pima.[16] Based on its 37.9 percent debt and 62.1 percent equity capital structure, Staff determined the WACC for Pima to be 7.8 percent.[17]

RUCO also did not consider firm-size and firm-specific risks for Pima. RUCO determined its recommended cost of equity of 9.4 percent based on the results of its DCF and CAPM methods.[18] RUCO uses a sample of five publicly traded water utilities. The five utilities are the same as five of the six water utilities I used. RUCO also uses nine gas distribution utilities in its analysis. RUCO recommends a capital structure of 22.53 percent debt and 77.47 percent equity and a hypothetical cost of debt of 7.696 percent.[19] The 7.696 percent cost of debt is the unadjusted test year effective cost of debt. Based on its 22.53 percent debt and 77.47 percent equity capital structure, RUCO determined the WACC for Pima to be 9.01 percent.[20]

Q. DO YOU EXPECT EITHER OF THESE RECOMMENDATIONS TO CHANGE?

A. Yes. I suspect both parties will update their capital structures and debt cost to coincide with the final costs associated with the recently approved and soon to be closed loan.[21]

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[16] *See* Decision No. 73078 at 8.
[17] *Id.*
[18] *See* Direct Testimony of William A. Rigsby Dt. ("Rigsby Dt.") at 5 – 6.
[19] *Id.*
[20] *Id.*
[21] *See* Rigsby Dt. at 6; Cassidy Dt. at 9.

Q. PLEASE COMPARE THE PARTIES' RESPECTIVE COST OF EQUITY ESTIMATES AND RECOMMENDATIONS.

A. The respective parties' cost of equity recommendations are summarized below:

Party	DCF	CAPM	Average	Recommended
Pima	10.5%	10.9%	10.7%	10.5%
Staff	9.1%	9.0%	9.1%	9.1%
RUCO	8.94%	4.58%	6.76%	9.4%

C. Comments on the Cost of Equity Results and Recommendations of Staff and RUCO

Q. HOW DO THE PARTIES' RECOMMENDATIONS COMPARE TO OTHER FORECASTS OF COMMON EQUITY RETURNS AND CURRENTLY AUTHORIZED RETURNS?

A. *Value Line*, a reputable publication used by the Company, Staff, and RUCO cost of capital witnesses, publishes forecasts of returns on common equity for larger publicly traded companies – both water and natural gas. These water utilities are included in my sample group and in both RUCO's and Staff's sample groups. *Value Line* (April 20, 2012) projects the following returns on equity for those water utilities:

American States Water (AWR)	11.0%
Aqua America (WTR)	12.5%
California Water (CWT)	10.5%
SJW Corp. (SJW)	8.0%
Average	10.5%

RUCO also uses a sample group of nine natural gas distribution companies. *Value Line* (April 20, 2012) projects the following returns on equity for those gas utilities:

AGL Resources, Inc. (GAS)	12.00%
Atmos Energy Corp. (ATO)	8.00%
Laclede Group (LG)	10.00%
New Jersey Resources (NJR)	14.00%
Northwest Gas Co. (NWN)	10.15%
Piedmont Natural Gas Co. (PNY)	13.00%
South Jersey Industries, Inc. (SJI)	17.00%
Southwest Gas (SWX)	12.00%
WGL Holdings, Inc. (SJW)	10.00%
Average	11.79%

Just as important, the currently authorized ROE's for the sample water utility companies as reported by AUS Utility Reports (April 2012) average 10.03 percent. They are as follows:

American States Water (WTR)	9.99%
Aqua America (WTR)	10.33%
California Water (CWT)	9.99%
Connecticut Water (CTWS)	9.75%
Middlesex Water (MSEX)	10.15%
SJW Corp. (SJW)	9.99%
Average	10.03%

The currently authorized ROE's for the sample natural gas distribution companies as reported by AUS (April 2012) average 10.39 percent. They are as follows:

AGL Resources, Inc. (GAS)	10.17%
Atmos Energy Corp. (ATO)	11.71%
Laclede Group (LG)	NM
New Jersey Resources (NJR)	10.30%
Northwest Gas Co. (NWN)	10.20%
Piedmont Natural Gas Co. (PNY)	10.40%
South Jersey Industries, Inc. (SJI)	10.30%
Southwest Gas (SWX)	10.22%
WGL Holdings, Inc. (SJW)	9.85%
Average	10.35%

The Staff and RUCO recommended returns are well below (90 to 100 basis points lower than) the average of the currently authorized returns and well below (239 to 269 basis points) the average of the 3-5 year expected returns of the publicly traded utilities each party uses to estimate the cost of equity for Pima. This is true despite the fact that all of the sample water utilities and the natural gas distribution companies are significantly larger than Pima.

Q. HOW DO THE PARTIES' RECOMMENDATIONS COMPARE TO THE DUFF & PHELPS RISK PREMIUM STUDY DATA?

A. The build-up method cost of equity estimate using the Duff & Phelps study data is 11.21 percent. This is 211 basis points higher than Staff's recommendation of 9.1 percent, 181 basis points higher than RUCO's recommendation of 9.4 percent, and 71 basis points higher than my recommendation of 10.5 percent.

Q. HOW DO THE RESULTS OF THE BUILD-UP METHOD FOR THE WATER UTILITIES COMPARE TO THE MEASURES OF SIZE SUCH AS NET PLANT AND TOTAL REVENUES?

A. Below is a table using the two common metrics of size as reported by AUS Utility Reports (April 2012) compared with the results of my cost of equity analysis based on the *Duff & Phelps* study.

Water Utility	Net Plant ($ millions)	Size Rank by Plant	Revenue ($ millions)	Size Rank by Rev.	*Duff & Phelps* COE	Lowest to Highest COE
American States Water (WTR)	$ 889.8	3	$ 419.3	3	10.69%	2
Aqua America (WTR)	$3,612.9	1	$ 729.6	1	9.01%	1
California Water (CWT)	$1,364.6	2	$ 501.8	2	11.18%	3
Connecticut Water (CTWS)	$ 354.6	6	$ 72.7	6	12.55%	6
Middlesex Water (MSEX)	$ 422.2	5	$ 101.5	5	11.93%	5
SJW Corp. (SJW)	$ 730.9	4	$ 239.0	4	11.90%	4
Average	$1,229.2		$ 344.0		11.21%	
Pima Utility Company (at December 31, 2010)	$ 21.9		$ 5.1		14.46%	

Despite the fact that neither net plant nor revenues were considered as measures of size using the build-up method, the cost of equity results show that as the size of the utility increases so does the cost of equity. This is as expected and is consistent with the empirical financial data found in *Morningstar*.

The average net plant for the publicly traded water utilities are over 56 times that of Pima and the average total revenues are over 67 times. There is a significant size difference and one would expect the cost of equity estimate for Pima to be much higher, and it is. Moreover, most of these utilities operate in jurisdictions such as California and Pennsylvania that use projected or partially

projected test years, and authorize surcharges and other cost recovery mechanisms which allow the recovery of increases in costs outside a general rate case. Therefore, not only because of size, for which the empirical data from *Duff & Phelps* and *Morningstar* among others support,[22] these large publicly traded utilities are less risky than Pima. In the real world, Pima has a cost of equity that is higher than the large publicly traded utilities.

Q. PLEASE SUMMARIZE THE RECOMMENDED RETURNS OF THE PARTIES, EXPECTED BOOK RETURNS, AUTHORIZED RETURNS, AND RETURNS BASED ON THE DUFF & PHELPS STUDY.

A. The following table summarizes the equity returns recommended by each of the parties with the foregoing expected book returns, authorized returns, and returns based upon size (Duff & Phelps) for the publicly traded utilities:

	Cost of Equity
Staff recommendation	9.10%
RUCO recommendation	9.40%
Pima recommendation	10.50%
Mid-point of DCF and CAPM (Water Utilities)	10.70%
Expected Book Returns (Water Utilities)	10.50%
Authorized Returns (Water Utilities)	10.03%
Duff & Phelps (Water Utilities)	11.21%

The foregoing data provide a clear indication that Staff's and RUCO's recommendations for Pima are simply too low and should not be adopted by the Commission.

[22] Direct Testimony of Thomas J. Bourassa – Cost of Capital ("Bourassa COC Dt.") at 40.

Q. WHAT ABOUT STAFF'S ASSERTION THAT THE ESTIMATES DERIVED FROM THE BUILD-UP METHOD BASED UPON THE DUFF & PHELPS STUDY DATA PROVIDE LITTLE SUPPORT FOR YOUR COST OF EQUITY RECOMMENDATION?

A. Staff claims the results of the build-up method using the *Duff & Phelps* study data are invalid as a check of my results DCF and CAPM results because the build-up method results far exceed my DCF and CAPM results.[23] This might be heard in ratemaking where Staff and RUCO continue to distort financial reality to keep returns at a level below nearly every jurisdiction in the Country. But it is financial nonsense. Simply because the results of an approach are higher or lower than the results of another approach does not invalidate them. If this were the case, then the results of Staff's DCF and CAPM analyses in the recent Sahuarita Water Company ("SWC") rate case should have been rejected. Staff's CAPM analysis produced a result of 11.1 percent while its DCF analysis produced a result of 9.5 percent—a difference of 160 basis points.[24] I do not recall Staff stating that either one of those results was invalid because the CAPM results far exceeded the DCF results.

Q. WHAT IS THE DIFFERENCE BETWEEN YOUR OVER-ALL RESULTS AND THE BUILD-UP METHOD RESULTS?

A. In my direct testimony and analysis, the difference between my over-all results and the build-up method was about 179 basis points (10.3 percent vs. 12.09 percent). My rebuttal over-all results of 10.7 percent are far closer to the build-up method at 11.21 percent–a 51 basis point difference. Again, I use these approaches as a check on the numbers my models spit out. The fact that my results are reasonable compared to those studies is what gives them credence, at least in financial terms.

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[23] Cassidy Dt. at 44.

[24] *See* Surrebuttal Testimony of Juan C. Manrique (filed June 21, 2010, Docket No. W-03718A-09-0359).

In fact, if anything, the results of the build-up method using the *Duff & Phelps* study data are more rational and contain less bias than the CAPM which is used by all the parties.

Q. WHY?

A. For one thing, a beta estimate is not needed for the build-up method. As I pointed out earlier, there are inherent computational problems with measuring beta, and betas are estimated with error. Based on empirical evidence, high betas will tend to have a positive error (risk is overestimated) and low betas will have a negative error (risk is underestimated).[25] So, the CAPM will underestimate the cost of equity for firms with low betas (<1.0) and overestimate the cost of equity for firms with high betas (> 1.0). The empirical evidence also shows beta increases as the size of the firm decreases.[26] Pima is not publicly traded and, therefore, it has no beta. Pima is also much smaller than the publicly traded utilities, yet it is assumed Pima has the same beta as the much larger publicly traded utilities. It is more likely that Pima would have a higher beta if it were publicly traded. The results of the CAPM would also be higher.

The build-up method I prepared also uses a market risk premium of 5.5 percent. This is conservative and well within the range of the risk premiums that RUCO witness, Mr. Rigsby, utilizes in his CAPM analysis. The RUCO risk premiums range from 4.5 percent to 6.4 percent with a mid-point of 5.5 percent.[27] Staff's market risk premiums range from 7.2 percent to 11.6 percent with a mid-point of 9.4 percent.

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[25] Bourassa COC Dt. at 35.
[26] *Id.* at 36.
[27] *See* RUCO Schedule WAR-6.

Q. WHAT ABOUT THE RISK FREE RATE?

A. I used the yield on a 20-year U.S. Treasury on April 6, 2012 of 2.85 percent. I believe even Staff would not complain about using a spot yield given Staff's testimony that expected interest rates should not be used.[28]

Q. YOU MENTIONED RECENT SAHUARITA WATER COMPANY RATE CASE. WHAT RETURN WAS AUTHORIZED THERE?

A. The Commission recently authorized Sahuarita Water Company ("SWC") a 10.3 percent return on equity in Decision No. 72177 (February 11, 2011).[29] SWC is a water only utility and is somewhat larger than Pima's water and sewer division combined in terms of net plant, but roughly ½ the size the size of Pima in terms of revenues. Further, its rates will be in effect roughly during the same time frame as Pima. The Company cannot compete for capital with such low recommendations by the other parties, not only with respect to SWC with an authorized return of 10.3 percent, but with respect to the large publicly traded water utility companies who on average have expected returns and authorized returns of 10.5 percent and 10.03 percent, respectively.

Q. BUT MR. BOURASSA, AREN'T STAFF AND RUCO SIMPLY GOING TO ASSERT THAT THE COMMISSION HAS IGNORED YOUR RECOMMENDATIONS BEFORE AND SHOULD DO SO AGAIN?

A. I'd be surprised if they didn't. Which is pretty ironic coming from RUCO, the party that made the exact same argument against property taxes for a decade. Of course, the Commission reviews every rate case on its own merits, or "case-by-case" as RUCO and Staff both like to say. And I have made more changes to my approach on cost of capital than I can possibly recall in response to many of my

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[28] Cassidy Dt. at 43.

[29] Decision No. 72177 at 30.

arguments being rejected. I have recognized a lot of realities of ratemaking and tried to find a reasonable balance with financial theory and financial reality. But I am not going to stop asking the Commission to do a better job of balancing ratemaking and finance, or the interests of shareholders and ratepayers. Respectfully, being at the bottom for returns is neither a badge of honor I want my state to wear nor is it good for the long term health of the citizenry.

Q. DOES THAT CONCLUDE YOUR REBUTTAL TESTIMONY ON COST OF CAPITAL?

A. Yes, although my silence on any of the issues, matters or findings addressed in the testimony of Staff and/or RUCO does not constitute my acceptance of their positions on such issues, matters or findings.

Pima Utility Company

Thomas Bourassa Rebuttal Testimony
(Cost of Capital)

Exhibit TJB-COC-RB1

Pima Utility Company
COST OF EQUITY (COE) USING RISK PREMIUM BUILD-UP METHOD

TABLE 1

	Company	Symbol	Measures of size (Millions) MV Equity[1]	Book Equity[1]	MVIC[1]	5 Yr Avg. Net Income	Total Assets[2]	5 Yr Avg. EBITDA[3]
1.	American States	AWR	$ 676	$ 377	$ 976	$ 32	$ 1,192	$ 120
2.	Aqua America	WTR	$ 3,068	$ 1,174	$ 4,600	$ 113	$ 4,072	$ 407
3.	California Water	CWT	$ 748	$ 436	$ 1,227	$ 37	$ 1,692	$ 128
4.	Connecticut Water	CTWS	$ 248	$ 119	$ 384	$ 10	$ 425	$ 23
5.	Middlesex	MSEX	$ 289	$ 174	$ 422	$ 12	$ 489	$ 38
6.	SJW Corp.	SJW	$ 452	$ 256	$ 748	$ 20	$ 935	$ 87
	Pima Utility Company		NA	$ 15.3	NA	$ 1.0	$ 13.0	$ 2.6

[1] From Value Line data (12/31/2010)
[2] From Zacks Investment Research. From E-1 for subject utility.
[3] Net Income. From Zacks Investment Research and Company ACC reports

Net Income Data

Company	Symbol	2011	2010	2009	2008	2007	Average
American States	AWR	$ 45.9	$ 33.2	$ 29.5	$ 22.0	$ 28.0	$ 31.7
Aqua America	WTR	$ 143.1	$ 124.0	$ 104.4	$ 97.9	$ 95.0	$ 112.9
California Water	CWT	$ 37.7	$ 37.7	$ 40.6	$ 39.8	$ 31.2	$ 37.4
Connecticut Water	CTWS	$ 11.3	$ 9.8	$ 10.2	$ 9.4	$ 8.8	$ 9.9
Middlesex	MSEX	$ 13.4	$ 14.3	$ 10.0	$ 12.2	$ 11.8	$ 12.4
SJW Corp.	SJW	$ 20.9	$ 24.4	$ 15.2	$ 21.5	$ 19.3	$ 20.2
Pima Utility Company		$ 0.9 (estimate)	$ 0.9	$ 1.2	$ 1.2	$ 1.1	$ 1.0

Net Income data for publicly traded water utilities from Zacks Investment Research and/or Yahoo Finance

[4] Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA). From Zacks Investment Research and Company ACC reports.

EBITDA Data

Company	Symbol	2011	2010	2009	2008	2007	Average
American States	AWR	$ 133.3	$ 134.4	$ 122.6	$ 105.9	$ 102.8	$ 119.8
Aqua America	WTR	$ 397.8	$ 473.2	$ 415.2	$ 384.7	$ 364.5	$ 407.1
California Water	CWT	$ 143.3	$ 155.7	$ 125.5	$ 122.1	$ 95.6	$ 128.4
Connecticut Water	CTWS	$ 24.2	$ 22.5	$ 20.3	$ 21.1	$ 27.9	$ 23.2
Middlesex	MSEX	$ 34.6	$ 43.3	$ 34.6	$ 38.6	$ 36.6	$ 37.6
SJW Corp.	SJW	$ 87.1	$ 75.4	$ 93.5	$ 99.7	$ 77.7	$ 86.7
Pima Utility Company		$ 2.5 (estimate)	$ 2.5	$ 2.7	$ 2.7	$ 2.7	$ 2.6

EBITDA data for publicly traded water utilities from Zacks Investment Research and/or Yahoo Finance
EBITDA data for subject utility from E-1 and/or ACC reports

Pima Utility Company
COST OF EQUITY (COE) USING RISK PREMIUM BUILD-UP METHOD

TABLE 2

MRP_{m+s} Estimates Using Duff & Phelps Study (Unlevered)
Assumes 100% Equity and 0% debt
Data Smoothing with Regression Analysis
Smoothed Premium (RP_{m+s}) = Constant + X Coefficients * Log(Relevent Metric)

$RPun_{relevered} = RP_{levered} - W_d/W_e*(\beta_u-\beta_d)*RP_{market}$
Where β_u = unlevered portfolio beta
β_d = debt beta, assumed to be 0.1
W_d = percentage of debt in capital structure
W_e = percentage of equity in capital structure
$RP_{levered}$ = levered realized risk premium

	MV Equity (Table C-1)	Book Equity (Table C-2)	MVIC (Table C-4)	5 Yr Avg. Net Income (Table C-3)	Total Assets (Table C-5)	5 Yr Avg. EBITDA (Table C-6)
Constant	18.475%	15.380%	18.661%	13.224%	17.273%	14.736%
X Coefficient(s)	-3.239%	-2.561%	-3.201%	-2.616%	-2.812%	-2.723%

MRP_{m+s} (unlevered)

	Company	Symbol	MV Equity	Book Equity	MVIC	5 Yr Avg. Net Income	Total Assets	5 Yr Avg. EBITDA	Average
1.	American States	AWR	9.31%	8.78%	9.09%	9.30%	8.62%	9.08%	9.03%
2.	Aqua America	WTR	7.18%	7.52%	6.94%	7.85%	7.12%	7.63%	7.37%
3.	California Water	CWT	9.17%	8.62%	8.77%	9.11%	8.19%	8.99%	8.81%
4.	Connecticut Water	CTWS	10.72%	10.07%	10.39%	10.62%	9.88%	11.02%	10.45%
5.	Middlesex	MSEX	10.51%	9.64%	10.26%	10.37%	9.71%	10.45%	10.16%
6.	SJW Corp.	SJW	9.87%	9.21%	9.46%	9.81%	8.92%	9.46%	9.46%
	Average (unlevered)		9.46%	8.97%	9.15%	9.51%	8.74%	9.44%	9.21%
	Pima Utility Company		NA	12.35%	NA	13.19%	14.14%	13.61%	13.32%
	Implied Size Premium for Subject Company over publicly traded water utilities								4.11%

Pima Utility Company
COST OF EQUITY (COE) USING RISK PREMIUM BUILD-UP METHOD

Unlevered Portfolio Beta
(from Duff & Phelps RP Study - Table C)

TABLE 3

	Company	Symbol	Unlevered Portfolio Beta (β_u) (Table C-1)	(Table C-2)	(Table C-4)	(Table C-3)	(Table C-5)	(Table C-6)	Average
1.	American States	AWR	0.95	0.96	0.98	0.94	0.94	0.97	0.96
2.	Aqua America	WTR	0.87	0.86	0.81	0.88	0.83	0.84	0.85
3.	California Water	CWT	0.98	0.95	0.95	0.94	0.92	0.97	0.95
4.	Connecticut Water	CTWS	0.96	1.00	0.97	0.97	0.99	1.03	0.99
5.	Middlesex	MSEX	0.96	0.98	0.97	0.97	0.99	0.99	0.98
6.	SJW Corp.	SJW	0.95	0.97	0.97	0.96	0.97	0.95	0.96
	Average		0.95	0.95	0.94	0.94	0.94	0.96	0.95
	Pima Utility Company		0.95	0.98	1.00	1.01	1.05	1.03	1.00

Pima Utility Company
COST OF EQUITY (COE) USING RISK PREMIUM BUILD-UP METHOD

TABLE 4

MRP Estimates Using Duff & Phelps Study (Relevered)
Relevered Realized Risk Premium
$RP_{relevered} = RP_{unlevered} + W_d/W_e*(\beta_u-\beta_d)*RP_{market}$
Where β_u = unlevered portfolio beta
β_d = debt beta, assumed to be 0.1
W_d = percentage of debt in capital structure
W_e = percentage of equity in capital structure
$RP_{unlevered}$ = unlevered realized risk premium from Table 2
RP_{market} = general equity risk premium for the market since 1963 (4.4%)

				MRP_{m+s} (Relevered)						
	Company	Symbol	W_d/W_e	MV Equity	Book Equity	MVIC	5 Yr Avg. Net Income	Total Assets	5 Yr Avg. EBITDA	Average
1.	American States	AWR	44.3%	10.93%	10.42%	10.77%	10.90%	10.22%	10.73%	10.66%
2.	Aqua America	WTR	49.9%	8.83%	9.15%	8.46%	9.53%	8.69%	9.22%	8.98%
3.	California Water	CWT	64.1%	11.59%	10.96%	11.11%	11.42%	10.45%	11.39%	11.16%
4.	Connecticut Water	CTWS	54.5%	12.73%	12.17%	12.43%	12.66%	11.97%	13.20%	12.53%
5.	Middlesex	MSEX	46.4%	12.22%	11.40%	11.99%	12.10%	11.48%	12.22%	11.90%
6.	SJW Corp.	SJW	65.4%	12.26%	11.66%	11.91%	12.22%	11.36%	11.85%	11.88%
	Average MRP (Relevered)		54.09%	11.43%	10.96%	11.11%	11.47%	10.70%	11.44%	11.18%
	Pima Utility Company	Proforma	28.18%	NA	13.41%	NA	14.29%	15.29%	14.74%	14.43%

Pima Utility Company
COST OF EQUITY (COE) USING RISK PREMIUM BUILD-UP METHOD

Equity Risk Premium Adjustment and Other meterics used in Build-up Method

TABLE 5

[1] Estimate of Current Market Risk Premium (**RP_{market}**)	5.50%
[2] Risk Premium Assumed in Duff & Phelps Study (1963-2011)[1]	4.30%
[3] Equity Risk Premium Adjustment ([1] - [2])	1.20%
[4] Average MRP (relevered) for publicly traded water companies (from Table 4)	11.18%
[5] MRP (relevered) for publicly traded water companies (**RP_{m+s}**) ([3] + [4])	12.38%
[6] Equity Risk Premium Adjustment ([3])	1.20%
[7] Average MRP (relevered) for subject utility company (from Table 4)	14.43%
[8] MRP (relevered) for subject utility company (**RP_{m+s}**) ([6] + [7])	15.63%
[9] Industry Risk Premium (From *Ibbotson* for SIC 494 Water Supply Industry Table 3-5)	-4.83%
[10] Adjustment Factor to Industry Risk Premium ([2] / 6.6%[1])	0.8333
[11] Adjusted Industry Risk Premium (**R_i**) ([9] x [10])	-4.03%
[12] Risk Free Rate (**R_f**)[2]	2.85%

[1] From Duff and Phelps Risk Premium Report 2012.
[2] Yield on 20 Yr U.S. Treasury April 6, 2012 (Federal Reserve)

Pima Utility Company
COST OF EQUITY (COE) USING RISK PREMIUM BUILD-UP METHOD

Cost of Equity (COE) Estimate using Build-up Method **TABLE 6**

$E(R_i) = R_f + RP_{m+s} + RP_i + RP_u$

Where:

- $E(R_i)$ = Expected (indicated) rate of return
- R_f = Risk-free rate of return. See Table 5.
- RP_{m+s} = Market risk premium including size premium. See Table 4.
- RP_i = Industry risk premium (adjusted) See Table 5.
- RP_u = Company-specific risk premium

	Sample Publicly Traded Water Utilities	Pima Utility Company
R_f =	2.85%	2.85%
RP_{m+s} =	See Table 4	See Table 4
RP_i =	-4.03%	-4.03%
RP_u =	0.00%	0.00%

			Indicated COE $E(R_i)$						
	Company	Symbol	MV Equity	Book Equity	MVIC	5 Yr Avg. Net Income	Total Assets	5 Yr Avg. EBITDA	Average
1.	American States	AWR	10.95%	10.45%	10.79%	10.92%	10.25%	10.76%	10.69%
2.	Aqua America	WTR	8.86%	9.18%	8.49%	9.55%	8.71%	9.24%	9.01%
3.	California Water	CWT	11.62%	10.99%	11.14%	11.45%	10.48%	11.42%	11.18%
4.	Connecticut Water	CTWS	12.76%	12.20%	12.45%	12.68%	11.99%	13.22%	12.55%
5.	Middlesex	MSEX	12.25%	11.42%	12.02%	12.13%	11.51%	12.25%	11.93%
6.	SJW Corp.	SJW	12.29%	11.68%	11.93%	12.25%	11.39%	11.87%	11.90%
	Average COE estimate		11.45%	10.99%	11.14%	11.50%	10.72%	11.46%	11.21%
	Pima Utility Company		NA	13.44%	NA	14.31%	15.32%	14.76%	14.46%

Pima Utility Company

Thomas Bourassa Rebuttal Testimony
(Cost of Capital)

D Schedules

Exhibit
Rebuttal Schedule D-1
Page 1
Witness: Bourassa

Pima Utility Company
Test Year Ended December 31, 2010
Summary of Cost of Capital

Consolidated Capital Structure of Water and Sewer Division

Proforma End of Test Year

Line No.	Item of Capital	Dollar Amount	Percent of Total	Cost Rate	Weighted Cost
1	Long-Term Debt	8,370,000	35.36%	4.250%	1.50%
2					
3	Stockholder's Equity	15,301,736	64.64%	10.50%	6.79%
4					
5	Totals	23,671,736	100.00%		8.29%
6					
7					
8					
9					
10					
11					
12					
13					
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21					
22	SUPPORTING SCHEDULES:				
23	D-1, page 2				
24	Testimony				
25					
26					
27					
28					
29					
30					

RECAP SCHEDULES:

Pima Utility Company
Test Year Ended December 31, 2010

Exhibit
Rebuttal Schedule D-1
Page 2
Witness: Bourassa

Computation of Consolidated Capital Structure

Line No.			
1	Equity Distribution		
2	Per E-1 Water	$	12,160,028
3	Per E-1 Wastewater		7,272,375
4	Water A/D Adjustments per Direct		588,942
5	Sewer A/D Adjustments per Direct		(2,219,610)
6	Subtotal		17,801,736
7	Equity Distribution		(2,500,000)
8	Net Equity Balance	$	15,301,736
9			
10	Debt		
11	Balance end of Test year	$	6,125,000
12	2011 principal payments		(1,755,000)
13	Subtotal		4,370,000
14	Increase in Debt		4,000,000
15	Net Debt Balance	$	8,370,000
16			
17	Total Capital	$	23,671,736
18	% Debt		35.36%
19	% Equity		64.64%
20			

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Cost of Long Term Debt

Exhibit
Rebuttal Schedule D-2
Page 1
Witness: Bourassa

Line No.	Description of Debt	End of Test Year Amount Outstanding	End of Test Year Annual Interest	End of Test Year Interest Rate	End of Test Year Weighted Cost	Proforma End of Test Year Amount Outstanding	Proforma End of Test Year Annual Interest	Proforma End of Test Year Interest Rate	Proforma End of Test Year Weighted Cost	End of Projected Year Amount Outstanding	End of Projected Year Annual Interest	End of Projected Year Interest Rate	End of Projected Year Weighted Cost
1													
2	IDA Bonds - Maricopa Cnty	6,125,000	471,380	7.696% [1]	7.696%	-	-	7.696%	0.000%	-	-	7.696%	0.000%
3	Proposed Long-term Debt				0.000%	8,370,000	355,728	4.250% [2]	4.250%	8,370,000	355,728	4.250%	4.250%
4													
5													
6													
7													
8													
9													
10													
11													
12													
13	Totals	$ 6,125,000	471,380		7.696%	$ 8,370,000	355,728		4.250%	$ 8,370,000	355,728		4.250%
14													
15													
16	Supporting Schdules:												
17	E-1												
18	Testimony												
19													
20													
21													
22													
23	[1] Effective interest rate using Effective Interest Method for amortizing bond issuance costs. See work papers.												
24	[2] Estimate of Effective interest rate using Effective Interest Method for amortizing bond issuance costs. See work papers.												
25													
26													
27													
28													
29													
30													

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Cost of Preferred Stock

Exhibit
Rebuttal Schedule D-3
Page 1
Witness: Bourassa

Line No.		End of Test Year			End of Projected Year		
1							
2							
3	Description	Shares		Dividend	Shares		Dividend
4	of Issue	Outstanding	Amount	Requirement	Outstanding	Amount	Requirement
5							
6							
7	NOT APPLICABLE, NO PREFERRED STOCK ISSUED OR OUTSTANDING						
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21	SUPPORTING SCHEDULES:			RECAP SCHEDULES:			
22				D-1			
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

Pima UtilityCompany - Water Division
Test Year Ended December 31, 2010
Cost of Common Equity

Exhibit
Rebuttal Schedule D-4
Page 1
Witness: Bourassa

Line No.		
1		
2	The Company is proposing a cost of common equity of	10.50% .
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17	SUPPORTING SCHEDULES:	RECAP SCHEDULES:
18	D-4.1 to D-4.16	D-1
19		
20		

Pima Utility Company
Summary of Results

Exhibit
Rebuttal Schedule D-4.1
Witness: Bourassa

Line No.	Method	Low	High	Midpoint
6	Range DCF Constant Growth Estimates[1]	9.7%	11.3%	10.5%
8	Range of CAPM Estimates[2]	8.2%	13.7%	10.9%
11	Average of DCF and CAPM midpoint estimates	8.9%	12.5%	10.7%
14	Financial Risk Adjustment[3]	-0.3%	-0.3%	-0.3%
16	Small Company Risk Premium[4]	0.5%	1.0%	0.8%
18	Indicated Cost of Equity	9.1%	13.2%	11.2%
22	Recommended Cost of Equity			10.5%

[1] See Schedule D-4-8
[2] See Schedule D-4.12
[3] See Schedule D-4.13, Testimony
[4] See Schedule D-4.16, Testimony

Pima Utility Company
Selected Characteristics of Sample Group of Water Utilities

Exhibit
Rebuttal Schedule D-4.2
Witness: Bourassa

Line No.	Company[1]	% Water Revenues	Operating Revenues (millions)	Net Plant (millions)	S&P Bond Rating	Moody's Bond Rating	Allowed ROE
4	1. American States	72%	$ 419.3	$ 889.8	A+	A2	9.99
5	2. Aqua America	96%	$ 729.6	$ 3,612.9	AA-	NR	10.33
6	3. California Water	97%	$ 501.8	$ 1,364.6	AA-	NR	9.99
7	4. Connecticut Water	98%	$ 72.7	$ 354.6	A	NR	9.75
8	5. Middlesex	90%	$ 101.5	$ 422.2	A	NR	10.15
9	6. SJW Corp.	96%	$ 239.0	$ 730.9	A	NR	9.99
11	Average	92%	$ 344.0	$ 1,229.2			10.03
13	Pima Utility Company	100% Water/Sewer	$ 5.1	$ 21.9	NR	NR	
14	(as of December 31, 2010)						

[1]AUS Utility Reports (April 2012).

Pima Utility Company
Capital Structures

Exhibit
Rebuttal Schedule D-4.3
Witness: Bourassa

No.	Company	Book Value[1] Long-Term Debt	Book Value[1] Common Equity	Market Value[1] Long-Term Debt	Market Value[1] Common Equity
4	1. American States	44.3%	55.7%	30.7%	69.3%
5	2. Aqua America	56.6%	43.4%	33.3%	66.7%
6	3. California Water	52.4%	47.6%	39.0%	61.0%
7	4. Connecticut Water	53.2%	46.8%	35.3%	64.7%
8	5. Middlesex	43.5%	56.5%	31.7%	68.3%
9	6. SJW Corp.	53.6%	46.4%	39.5%	60.5%
11	Average	50.6%	49.4%	34.9%	65.1%
13	Pima Utility Company [2] (Proforma)	35.4%	64.6%	N/A	N/A

[1] Value Line Analyzer Data (April 6, 2012)
[2] Adjusted Per Schedule D-1

Pima Utility Company
Comparisons of Past and Future Estimates of Growth

Exhibit
Rebuttal Schedule D-4.4
Witness: Bourassa

Line No.	Company	[1] Price[1]	[2] Book Value[2]	[3] EPS[2]	[4] DPS[2]	[5] Average Col 1-4	[6] Average Future Growth[3]	[7] Average of Future and Historical Growth Col 5-6
		Five-year historical average annual changes						
8	1. American States	5.86%	5.00%	11.50%	2.50%	6.21%	8.07%	7.14%
9	2. Aqua America	0.38%	7.00%	4.50%	8.00%	4.97%	8.60%	6.79%
10	3. California Water	NMF	5.50%	6.50%	1.00%	4.33%	8.48%	6.41%
11	4. Connecticut Water	3.43%	3.00%	1.50%	1.50%	2.36%	7.90%	5.13%
12	5. Middlesex	7.10%	5.50%	4.50%	1.50%	4.65%	4.35%	4.50%
13	6. SJW Corp.	NMF	6.50%	NMF	5.50%	6.00%	10.00%	8.00%
16	GROUP AVERAGE	4.19%	5.42%	5.70%	3.33%	4.75%	7.90%	6.33%
17	GROUP MEDIAN	4.64%	5.50%	4.50%	2.00%	4.81%	8.27%	6.60%

[1] Average of changes in annual stock prices ending on December 31 through 2011. Data from Yahoo Finance website.
[2] Value Line Analyzer Data, April 6, 2012
[3] See Schedule D-4.6.

Pima Utility Company
Comparisons of Past and Future Estimates of Growth

Exhibit
Rebuttal Schedule D-4.5
Witness: Bourassa

Line No.	Company	[1] Price[1]	[2] Book Value[2]	[3] EPS[2]	[4] DPS[2]	[5] Average Col 1-4	[6] Average Future Growth[3]	[7] Average of Future and Historical Growth Col 5-6
		Ten-year historical average annual changes						
7	1. American States	6.51%	5.00%	4.50%	2.00%	4.50%	8.07%	6.28%
8	2. Aqua America	7.63%	9.00%	6.50%	7.50%	7.66%	8.60%	8.13%
9	3. California Water	3.95%	4.50%	3.00%	1.00%	3.11%	8.48%	5.79%
10	4. Connecticut Water	5.00%	4.00%	1.00%	1.50%	2.87%	7.90%	5.39%
11	5. Middlesex	5.84%	4.50%	2.50%	2.00%	3.71%	4.35%	4.03%
12	6. SJW Corp.	2.69%	6.00%	2.00%	5.00%	3.92%	10.00%	6.96%
15	GROUP AVERAGE	5.27%	5.50%	3.25%	3.17%	4.30%	7.90%	6.10%
16	GROUP MEDIAN	5.42%	4.75%	2.75%	2.00%	3.82%	8.27%	6.04%

[1] Average of changes in annual stock prices ending December 31, 2011. Data from Yahoo Finance website.
[2] Value Line Analyzer Data, March 8, 2012.
[3] See Rejoinder Schedule D-4.6.

Pima Utility Company
Analysts Forecasts of Earnings Per Share Growth

Exhibit
Rebuttal Schedule D-4.6
Witness: Bourassa

Line No.		[1]	[3]	[4]	[5]
1					
2					
3					
4		ESTIMATES OF EARNINGS GROWTH			Average
5				Value	Growth (G)
6	Company	Zacks[1]	Yahoo[1]	Line[1]	(Cols 1-4)[2]
7	1. American States	12.00%	5.70%	6.50%	8.07%
8	2. Aqua America	8.30%	7.50%	10.00%	8.60%
9	3. California Water	10.00%	9.93%	5.50%	8.48%
10	4. Connecticut Water		4.55%		7.90%
11	5. Middlesex		2.70%	6.00%	4.35%
12	6. SJW Corp.		14.00%	6.00%	10.00%
13					
14					
15	GROUP AVERAGE	10.10%	7.40%	6.80%	7.90%
16	GROUP MEDIAN				8.27%
17					
18					
19	[1] Data as of April 6, 2012				
20	[2] Where no data available or single estimate, average of other utilities assumed to estimate for utility.				
21					
22					
23					
24					
25					
26					
27					
28					

Pima Utility Company
Current Dividend Yields for Water Utility Sample Group

Exhibit
Rebuttal Schedule D-4.7
Witness: Bourassa

Line No.	Company	Curent Stock Price (P_0)[1]	Current Dividend (D_0)[1]	Current Dividend Yield (D_0/P_0)[1]	Average Annual Dividend Yield (D_0/P_0)[1,2]
1					
2					
3					
4					
5					
6	1. American States	$ 36.36	$ 1.04	2.86%	2.98%
7	2. Aqua America	$ 22.23	$ 0.59	2.65%	3.11%
8	3. California Water	$ 17.94	$ 0.60	3.34%	3.24%
9	4. Connecticut Water	$ 28.23	$ 0.94	3.33%	3.62%
10	5. Middlesex	$ 18.50	$ 0.72	3.89%	4.23%
11	6. SJW Corp.	$ 24.32	$ 0.68	2.80%	2.78%
12					
13	Average			3.15%	3.33%
14	Median			3.10%	3.18%
15					
16	[1] Value Line Analyzer Data. Stock prices as of April 6, 2012.				
17	[2] Average Annual Dividend is dividends declared per share for a year divided by the average annual price of the stock in the same year,				
18	expressed as a percentage. For comparison purposes only.				
19					
20					
21					
22					
23					
24					
25					

Pima Utility Company
Discounted Cash Flow Analysis
DCF Constant Growth

Exhibit
Rebuttal Schedule D-4.8
Witness: Bourassa

Line No.		[1]	[2]	[3]		[4]
		Average Spot Dividend Yield (D_0/P_0)[1]	Expected Dividend Yield (D_1/P_0)[2]	Growth (g)		Indicated Cost of Equity k=Div Yld + g (Cols 2+3)
8	DCF - Past and Future Growth	3.15%	3.35%	6.33%	[3]	9.7%
10	DCF - Future Growth	3.15%	3.39%	7.90%	[4]	11.3%
13	Average	3.15%	3.37%	7.11%		10.5%

[1] Spot Dividend Yield = D_0/P_0. See Schedule D-4.7.
[2] Expected Dividend Yield = $D_1/P_0 = D_0/P_0 * (1+g)$.
[3] Growth rate (g). Average of Past and Future Growth. See Schedule D-4.4, column 7
[4] Growth rate (g). Average of Analyst Estimates Future Growth. See Schedule D-4.6.

Pima Utility Company
Market Betas

Exhibit
Rebuttal Schedule D-4.9
Witness: Bourassa

Line No.	Company	Beta (β)[1]
1		
2	1. American States	0.70
3	2. Aqua America	0.65
4	3. California Water	0.65
5	4. Connecticut Water	0.75
6	5. Middlesex	0.70
7	6. SJW Corp.	0.85
8		
9	Average	**0.72**
10		
11		
12		
13	[1] Value Line Investment Analyzer data (April 6, 2012)	
14	Note: Beta is a relative measure of the historical sensitivity of a stock's price to overall fluctuations	
15	in the New York Stock Exchange Composite Index. A Beta of 1.50 indicates a stock tends to rise	
16	(or fall) 50% more than the New York Stock Exchange Composite Index. The "Beta coefficient" is	
17	derived from a regression analysis of the relationship between weekly percent-age changes in the	
18	price of a stock and weekly percentage changes in the NYSE Index over a period of five years. In	
19	the case of shorter price histories, a smaller time period is used, but two years is the minimum.	
20	The Betas are adjusted for their long-term tendency to converge toward 1.00.	

Pima Utility Company
Forecasts of Long-Term Interest Rates
2011-2012

Exhibit
Rebuttal Schedule D-4.10
Witness: Bourassa

Line No.	Description	Actual 2012 Q-1	2012	2013	Average
1					
2					
3					
4					
5					
6	Blue Chip Consensus Forecasts[1]	3.04%	3.4%	3.8%	3.4%
7					
8	Value Line[2]	3.04%	3.4%	3.7%	3.4%
9					
10	Average				3.4%
11					
12					
13					
14					
15	[1] April 2012 Blue Chip Financial Forecasts consensus forecast of 30 Year U.S.Treasury				
16	[2] Value Line Quarterly forecast, dated February 24, 2012, Long-term Treasury				
17					
18					
19					
20					
21					
22					
23					
24					

Pima Utility Company
Computation of Current Market Risk Premium

Exhibit
Rebuttal Schedule D-4.11
Witness: Bourassa

Line No.	Month	Dividend Yield (D_0/P_0)[1]	Expected Dividend Yield (D_1/P_0)[2]	+	Growth (g)[3]	=	Expected Market Return (k)	-	Monthly Average 30 Year Treasury Rate[4]	=	Market Risk Premium (MRP)
4	Jan 2011	2.34%	2.60%	+	11.10%	=	13.70%	-	4.52%	=	9.18%
5	Feb	2.41%	2.73%	+	13.16%	=	15.89%	-	4.65%	=	11.24%
6	Mar	2.35%	2.64%	+	12.33%	=	14.97%	-	4.51%	=	10.46%
7	April	1.83%	2.02%	+	10.30%	=	12.32%	-	4.50%	=	7.82%
8	May	1.95%	2.18%	+	11.76%	=	13.94%	-	4.29%	=	9.65%
9	June	1.97%	2.21%	+	12.11%	=	14.32%	-	4.23%	=	10.09%
10	July	2.23%	2.58%	+	15.51%	=	18.09%	-	4.27%	=	13.82%
11	Aug	2.73%	3.24%	+	18.51%	=	21.75%	-	3.65%	=	18.10%
12	Sept	2.88%	3.47%	+	20.40%	=	23.87%	-	3.18%	=	20.69%
13	Oct	2.60%	3.03%	+	16.35%	=	19.38%	-	3.13%	=	16.25%
14	Nov	2.75%	3.24%	+	17.89%	=	21.13%	-	3.02%	=	18.11%
15	Dec 2011	2.70%	3.17%	+	17.41%	=	20.58%	-	2.98%	=	17.60%
16	Jan 2012	2.61%	2.98%	+	14.18%	=	17.16%	-	3.03%	=	14.13%
17	Feb	2.60%	2.99%	+	15.01%	=	18.00%	-	3.11%	=	14.89%
19	Recommended	2.64%	3.05%	+	15.53%	=	18.58%	-	3.04%	=	14.30%
21	Short-term Trends										
22	Recent Twelve Months Avg	2.43%	2.81%	+	15.15%	=	17.96%	-	3.66%	=	14.30%
23	Recent Nine Months Avg	2.56%	2.99%	+	16.37%	=	19.36%	-	3.40%	=	15.96%
24	Recent Six Months Avg	2.69%	3.15%	+	16.87%	=	20.02%	-	3.08%	=	16.94%
25	Recent Three Months Avg	2.64%	3.05%	+	15.53%	=	18.58%	-	3.04%	=	15.54%

[1] Average Current Dividend Yield (D_0/P_0) of dividend paying stocks. Data from Value Line Investment Analyzer Software Data - Value Line 1700 Stocks

[2] Expected Dividend Yield (D_1/P_0) equals average current dividend yield (D0/P0) times one plus growth rate(g).

[3] Average 3-5 year price appreciation (annualized). Data from Value Line Investment Analyzer Software Data - Value Line 1700 Stocks

[4] Monthly average 30 year U.S. Treasury. Federal Reserve.

Pima Utility Company
Capital Asset Pricing Model (CAPM)

Exhibit
Rebuttal Schedule D-4.12
Witness: Bourassa

Line No.		Rf[1]	+	beta[3]	x	Rp		=	k
1									
2									
3	Historical Market Risk Premium CAPM	3.4%	+	0.72	x	6.6%	[4]	=	8.2%
4									
5	Current Market Risk Premium CAPM	3.4%	+	0.72	x	14.3%	[5]	=	13.7%
6									
7	Average								10.9%
8									
9									
10									
11									
12	[1] Forecasts of long-term treasury yields. See Schedule D-4.10.								
13	[2] Value Line Investment Analyzer data. See Schedule D-4.9.								
14	[3] Historical Market Risk Premium from (Rp) MorningStar *SBBI 2012 Valuation Yearbook* Table A-1 Long-Horizon ERP 1926-2011.								
15	[4] Computed using DCF constant growth method to determine current market return onValue Line 1700 stocks								
16	and CAPM with beta of 1.0 to compute Current Market Risk Premium (Rp). See Schedule D-4.11.								
17									
18									
19									
20									

Pima Utility Company
Financial Risk Computation

Exhibit
RebuttalSchedule D-4.13
Witness: Bourassa

Line No.											
1	**CAPM**										
2		**Rf**		+	β		x	**(Rp)**			**k**
3	Historical Market Risk Premium	3.4%	1	+	0.72	2	x	6.6%	3	=	8.2%
4	Current Market Risk Premium	3.4%	1	+	0.72	2	x	14.3%	4	=	13.7%
5											
6	Average										11.0%
7											
8											
9	**CAPM Relevered Beta**										
10		**Rf**		+	β		x	**(Rp)**			**k**
11	Historical Market Risk Premium	3.4%	1	+	0.69	5	x	6.6%	3	=	8.0%
12	Current Market Risk Premium	3.4%	1	+	0.69	5	x	14.3%	4	=	13.3%
13											
14	Average										10.7%
15											
16	Financial Risk Adjustment										**-0.3%**
17											
18											
19	[1] Forecast of long-term treasury yields. See Schedule D-4.10										
20	[2] Value Line Investment Analyzer data. See Schedule D-4.9										
21	[3] Historical Market Risk Premium from (Rp) MorningStar SBBI 2012 Valuation Yearbook Table A-1 Long-Horizon ERP 1926-2011										
22	[4] Computed using DCF constant growth method to determine current market return on Value Line 1700 stocks										
23	and CAPM with beta of 1.0 to compute Current Market Risk Premium (Rp). See Schedule D-4.11										
24	[5] Relevered bata found on Schedule D-4.15										
25											

Pima Utility Company
Financial Risk Computation
Unlevered Beta

Exhibit
Rebuttal Schedule D-4.14
Witness: Bourassa

Line No.		Company	VL Beta β_L[1]	Raw Beta Raw β_L[2]	Tax Rate t[3]	MV Debt D[4]	MV Equity E[4]	Unlevered Raw Beta β_U[5]
5	1.	American States	0.70	0.55	43.2%	30.7%	69.3%	0.44
6	2.	Aqua America	0.65	0.48	39.2%	33.3%	66.7%	0.37
7	3.	California Water	0.65	0.48	39.5%	39.0%	61.0%	0.35
8	4.	Connecticut Water	0.75	0.63	41.3%	35.3%	64.7%	0.48
9	5.	Middlesex	0.70	0.55	32.1%	31.7%	68.3%	0.42
10	6.	SJW Corp.	0.85	0.78	38.8%	39.5%	60.5%	0.56
13		Sample Water Utilitie:	0.72	0.58	39.0%	34.9%	65.1%	0.44

[1] Value Line Investment Analyzer data. See Schedule D-4.13
Value Line uses the historical data of the stock, but assumes that a security's beta moves toward the market average over time. The formula is as follows:
Adjusted beta = .33 + (.67) * Raw beta
[2] Raw Beta = (VL beta - .33)/(.67)
[3] Effective tax rates for year ended December 31, 2011.
[4] See Schedule D-4.3
[5] Raw B_u = Raw B_L/ (1+ (1-t)*D/E)

Pima Utility Company
Financial Risk Computation
Relevered Beta

Exhibit
Rebuttal Schedule D-4.15
Witness: Bourassa

Line No.		Unlevered Raw Beta β_U[1]	MV Book Debt BD[2]	MV Equity Capital EC[2]	Tax Rate t[3]	Relevered Raw Beta $\beta_{RL}=\beta_U$ (1+(1-t)BD/EC)) β_{RL}	VL Adjusted Relevered Beta .33 + .67(Raw Beta) β_{RL}
5	Pima Utility Company	0.44	22.0%	78.0%	24.14%	0.53	0.69

[1] Unlevered Beta from Schedule D-4.14.

[2] Capital Structure of Company

	BV (in Thousands)			MV (in Thousands)	MV %
Long-term Debt	$ 8,370	1.00		$ 8,370	22.00%
Preferred Stock	$ -	1.00		-	0.0%
Common Stock	$ 15,302	1.94	(a)	29,700	78.0%
Total Capital	$ 23,672			$ 38,070	100.0%

(a) Current market-to-book ratio of sample water utilities. See work papers.

[3] Current Tax rate based on test year ending 12/31/2011. See Schedule D-1.

Pima Utility Company
Size Premium[1]

Exhibit
Rebuttal Schedule D-4.16
Witness: Bourassa

Line No.		Beta(β)	Size Premium	Risk Premium for Small Water Utilities[7]
6	Mid-Cap Companies[2]	1.12	1.14%	
8	Low-Cap Companies[3]	1.23	1.88%	
10	Micro-Cap Companies[4]	1.36	3.89%	
12	Decile 10[5]	1.7	6.10%	3.86%

		Risk Premium for Small Water Utilities
20	Estimated Risk Premium for small water utilities[6]	0.99%

[1] Data from Table 7-8 of Morningstar, *Ibbotson SBBI 2012 Valuation Yearbook.*
[2] Mid-Cap companies includes companies with market capitalization between $1,621 million and $6,896 million.
[3] Low-Cap companies includes companies with market capitalization between $422 million and $1,620 million.
[4] Micro-Cap companies includes companies with market capitalization less than $422 million.
[5] Decile 10 includes companies with market capitalization between $1.0 million and $206 million.
[6] From Table 2, Thomas M. Zepp, "Utility Stocks and the Size Effect Revisited," *The Quarterly Review of Economics and Finance*, 43 (2003), 578-582.
[7] Computed as the weighted differences between the Decile 10 risk premium and the inidicated risk premiums for the sample water utlities as shown below. Excludes risk due to differences in beta.

		Market Cap. (Millions)	Class	Size Premium	Difference to Decile 10	Weight	Weighted Size Premium
1.	American States	$ 676	Low-Cap	1.88%	4.22%	0.1666667	0.70%
2.	Aqua America	$ 3,068	Mid-Cap	1.14%	4.96%	0.1666667	0.83%
3.	California Water	$ 748	Low-Cap	1.88%	4.22%	0.1666667	0.70%
4.	Connecticut Water	$ 248	Decile 9	2.80%	3.30%	0.1666667	0.55%
5.	Middlesex	$ 289	Micro-Cap	3.89%	2.21%	0.1666667	0.37%
6.	SJW Corp.	$ 452	Low-Cap	1.88%	4.22%	0.1666667	0.70%
	Weighted Size Premium for Small Companies						3.86%