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ORIGINAL

MEMORANDUM

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Arizona Corporation Commission

DOCKETED

AUG 16 2011

TO: Docket Control

FROM: Steven M. Olea  
Director  
Utilities Division

DOCKETED BY	
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DATE: August 16, 2011

RE: STAFF REPORT FOR MIRABELL WATER COMPANY'S APPLICATION FOR A PERMANENT RATE INCREASE (DOCKET NO. W-02368A-11-0185)

Attached is the Staff Report for Mirabell Water Company's application for a permanent rate increase. Staff recommends approval of the rate increase application using Staff's recommended rates and charges.

Any party who wishes may file comments to the Staff Report with the Commission's Docket Control by 4:00 p.m. on or before August 25, 2011.

SMO:BCA:kdh

Originator: Brendan C. Aladi

RECEIVED  
 AUG 16 2011  
 DOCKET CONTROL

Service List for: Mirabell Water Company  
Docket No. W-02368A-11-0185

Ms. Bonnie O'Connor  
Mirabell Water Company  
Post Office Box 85160  
Tucson, Arizona 85754

**STAFF REPORT  
UTILITIES DIVISION  
ARIZONA CORPORATION COMMISSION**

**MIRABELL WATER COMPANY**

**DOCKET NO. W- 02368A-11-0185**

**APPLICATION FOR  
A PERMANENT RATE INCREASE**

**AUGUST 16, 2011**

## STAFF ACKNOWLEDGMENT

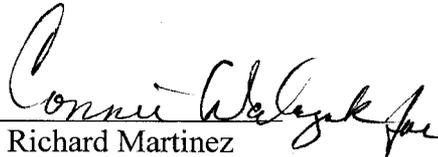
The Staff Report for Mirabell Water Company, Docket No. W-02368A-11-0185 was the responsibility of the Staff members listed below. Brendan C. Aladi was responsible for the financial review and analysis of the Company's application, recommended revenue requirement, rate base and rate design. Dorothy Hains was responsible for the engineering and technical analysis. Richard Martinez was responsible for reviewing the Commission's records on customer complaints filed with the Commission.



Brendan C. Aladi  
Public Utilities Analyst III



Dorothy Hains  
Utilities Engineer



Richard Martinez  
Public Utilities Consumer Analyst II

**EXECUTIVE SUMMARY**  
**MIRABELL WATER COMPANY**  
**APPLICATION FOR A PERMANENT RATE INCREASE**  
**DOCKET NO. W-02368A-11-0185**

Pursuant to Decision No. 71421, Mirabell Water Company ("Mirabell" or "Company") filed an application for a rate increase with the Arizona Corporation Commission ("Commission") on April 29, 2011. In the same Decision, the Commission approved a Water Infrastructure Finance Authority ("WIFA") loan surcharge on the emergency rate and financing applications until new rates are set.

Mirabell is a class D for-profit Arizona public service corporation that provides potable water service to approximately 57 metered customers. The Company's service area is located approximately 15 miles southwest of the City of Tucson, in Pima County, Arizona. The current permanent rates were authorized in Decision No. 68233, dated October 25, 2005.

Mirabell proposed no increase over the Company adjusted test year revenue of \$55,384. The Company's adjusted test year revenues would result in an operating income of \$5,332 for an operating margin of 9.63 percent. Due to the Company's inclusion of its proposed rates in the Company adjusted test year revenue, the application appears to request no increase. However, Staff's adjustment to the Company's test year revenue reflects the correct test year revenue of \$32,910. Based on the correcting adjustment, the Company is proposing a \$22,474 or a 68.29 percent increase over the Company's corrected test year revenue of \$32,910. The Company's corrected test year revenue results in an operating loss. The Company's proposed rates would increase the typical residential 3/4-inch meter bill with a median usage of 5,081 gallons from \$32.97 to \$54.89, for an increase of \$21.91, or 66.5 percent.

Staff recommends a \$22,433 or a 68.09 percent increase over the Staff adjusted test year revenue of \$32,951 to \$55,384. Staff's recommended revenues would result in an operating income of \$8,135 for an operating margin of 14.69 percent. Staff's recommended rates would increase the typical residential 3/4-inch meter bill with a median usage of 5,081 gallons from \$32.97 to \$48.83, for an increase of \$15.85, or 48.1 percent. However, taking into account the termination of the current \$2.77 per month surcharge for 3/4-inch meter, the actual bill impact on a median usage customer would be a monthly increase of \$13.08 or 36.6 percent.

**STAFF RECOMMENDATIONS**

Staff recommends approval of its recommended rates and charges as shown in Schedule BCA-4.

Staff further recommends that the Company be ordered to file with Docket Control, a tariff schedule of its new rates and charges within 30 days after the effective date of the Decision in this proceeding.

Staff further recommends that the WIFA loan surcharge authorized in Decision No.

71943 be discontinued when the rates approved in this rate case become effective.

Staff further recommends that the Company be ordered to use the depreciation rates delineated in Exhibit 6, of the attached Engineering Report.

Staff further recommends that the Company file with Docket Control, as a compliance item in this docket within 90 days of the effective date of a decision in this proceeding, at least three best management practices in the form of tariffs that substantially conform to the templates created by Staff, for the Commission's review and consideration.

Staff further recommends that the Company be required to coordinate the reading of its well meter and individual customer meters on a monthly basis and report this data in its Commission Annual Report for the year ending 2011. Staff further recommends if the reported water loss in the Annual Report is greater than 10 percent, the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to less than 10 percent. If the Company believes it is not cost effective to reduce the water loss to less than 10 percent, it should submit a detailed cost benefit analysis to support its opinion. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item no later than June 30, 2012.

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**ATTACHMENT**

Engineering Report .....DH

**Fact sheet**

**Company:**

Type of Ownership: C Corporation.

Mirabell Water Company (“Company”) is a class D for-profit Arizona public service corporation that provides potable water service to approximately 57 metered customers. The Company’s service area is located approximately 15 miles southwest of the City of Tucson, in Pima County, Arizona. The Company is located in the Tucson Active Management Area.

**Rates:**

Permanent rate increase application filed: April 29, 2011.

Current test year ended: December 31, 2010.

Prior test year ended: December 31, 2004.

The application became sufficient on May 31, 2011.

	<u>Company Current Rates</u>	<u>Company Proposed Rates</u>	<u>Staff Recommended Rates</u>
<b>Monthly Minimum Rates</b>			
Residential Monthly Minimum Charge			
5/8 x 3/4-inch meter	N/A	\$ 23.00	\$ 20.00
3/4-inch meter	\$ 22.00	\$ 34.50	\$ 30.00
1-inch meter	\$ 35.00	\$ 57.00	\$ 50.00
1 1/2-inch meter	\$ 62.00	\$ 115.00	\$ 100.00
2-inch meter	\$ 105.00	\$ 184.00	\$ 160.00
3-inch meter	\$ N/A	\$ 368.00	\$ 320.00
4-inch meter	\$ N/A	\$ 575.00	\$ 500.00
6-inch meter	\$ N/A	\$1,150.00	\$1,000.00

(No gallons included in the minimum)

**Fact Sheet (Continued)**

	<u>Company Current Rates</u>	<u>Company Proposed Rates</u>	<u>Staff Recommended Rates</u>
<b>Commodity Rates (Per 1,000 gallons)</b>			
<u>5/8 x 3/4 &amp; 3/4-inch meters</u>			
0 to 4,000 gallons	\$ 2.00	N/A	N/A
4,001 to 12,000 gallons	\$ 2.75	N/A	N/A
Over 12,000 gallons	\$ 3.50	N/A	N/A
<u>All other meter sizes</u>			
0 to 12,000 gallons	\$ 2.75	N/A	N/A
Over 12,000 gallons	\$ 3.50	N/A	N/A
<u>5/8 x 3/4 &amp; 3/4-inch meters</u>			
0 to 3,000 gallons	N/A	\$ 3.50	N/A
3,001 to 10,000 gallons	N/A	\$ 4.75	N/A
Over 10,000 gallons	N/A	\$ 6.00	N/A
<u>5/8 x 3/4 &amp; 3/4-inch meters</u>			
0 to 2,000 gallons	N/A	N/A	\$ 2.25
2,001 to 8,000 gallons	N/A	N/A	\$ 4.00
Over 8,000 gallons	N/A	N/A	\$ 7.40
<u>All other meter sizes</u>			
0 to 10,000 gallons	N/A	\$ 4.75	\$ 4.00
Over 10,000 gallons	N/A	\$ 6.00	\$ 7.40

**Typical 3/4-inch residential bill**

Average use (7,883 gallons)	\$ 40.68	\$ 68.19	\$ 60.03
Median use (5,081 gallons)	\$ 32.97	\$ 54.89	\$ 48.83

**Customers**

Average Number of customers in the current test year (12/31/10): 57

Current test year customers by meter size:

3/4-inch	46
1-inch	<u>11</u>
	57

**Fact Sheet (Continued)**

**Notifications**

Customer Notification was mailed on April 29, 2011, to all customers.

Number of opinions filed against the rate increase application: 51

Number of customer complaints filed against the Company from January 1, 2008, to August 1, 2011, are as follow:

2008 Three complaints: 1-Quality of Service/Interruption of Service  
1-No bill received  
1-Restriction of Service

2009 One complaint:  
1-Quality of Service/Interruptions

2010 Three complaints:  
1-Billing Dispute  
1- Quality of Service/Interruption of Service  
1- Service not working

2011 Five complaints:  
5- Quality of Service/Interruption of Service

All complaints have been resolved and closed.

### **Summary of Filing**

The test year result as adjusted by Utilities Division Staff ("Staff") for Mirabell Water Company ("Mirabell" or "Company") show total operating revenue of \$32,951, an operating loss of \$11,570, and no rate of return and operating margin, as shown on Schedule BCA-1. The Original Cost Rate Base ("OCRB") as adjusted by Staff is \$22,348<sup>1</sup>.

Mirabell's application, as filed, proposes no increase over the adjusted test year total operating revenues of \$55,384. The Company adjusted test year revenue would produce an operating income of \$5,332, for a 9.63 operating margin. Due to the Company's inclusion of its proposed rates in the Company adjusted test year revenue, the application appears to request no increase. However, Staff's adjustment to the Company's test year revenue reflects the correct test year revenue of \$32,910. Based on the correcting adjustment, the Company is proposing a \$22,474 or a 68.29 percent increase over the Company's corrected test year revenue of \$32,910. The Company's corrected test year revenue results in an operating loss. The Company's proposed rates would increase the typical residential 3/4-inch meter bill with a median usage of 5,081 gallons from \$32.97 to \$54.89, for an increase of \$21.91, or 66.5 percent, as shown on Schedule BCA-5.

Staff recommends a \$22,433 or 68.09 percent increase from Staff's adjusted test year revenue of \$32,951 to \$55,384. Staff's recommended increase would produce an operating income of \$8,135 for a 14.69 percent operating margin. Staff's recommended rates would increase the typical residential 3/4-inch meter bill with a median usage of 5,081 gallons from \$32.97 to \$48.83, for an increase of \$15.85, or 48.1 percent, as shown on Schedule BCA-5. However, taking into account the termination of the current \$2.77 per month surcharge for a 3/4-inch meter, the actual bill impact on a median usage customer would be a monthly increase of \$13.08 or 36.6 percent, as shown on Schedule BCA-5.1.

According to the application, the Company requests a rate increase due to increases in the cost of operating the aging water system and cost to professionally manage the system in order to stay in compliance with the various agencies and laws.

### **Background**

During the test year ended December 31, 2010, Mirabell provided water service to an average of 57 metered customers.

Mirabell is an Arizona "C" corporation that provides water service to Arizona customers and is located approximately 15 miles southwest of the City of Tucson, in Pima County, Arizona.

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<sup>1</sup> The Company did not propose a fair value rate base that differs from its OCRB.

Pursuant to Decision No. 71421, Mirabell filed an application for a rate increase with the Arizona Corporation Commission (“Commission”) on April 29, 2011. On May 31, 2011, Staff issued a Letter of Sufficiency. In the same Decision, the Commission approved a Water Infrastructure Finance Authority (“WIFA”) loan surcharge on emergency rate and financing applications until new rates are set.

### **Consumer Services**

Staff reviewed the Commission’s records for the period beginning January 1, 2008, to August 1, 2011, and found the following complaints and opinions filed opposing the rate increase request:

2008 Three complaints: 1-Quality of Service/Interruption of Service  
1-No bill received  
1-Restriction of Service

2009 One Complaint:  
1-Quality of Service/Interruptions

2010 Three complaints:  
1-Billing Dispute  
1- Quality of Service/Interruption of Service  
1- Service not working

2011 Five complaints:  
5- Quality of Service/Interruption of Service

All complaints have been resolved and closed.

Fifty-one opinions were filed against the current rate increase.

A notarized affidavit of mailing “Customer Notification” was filed with the application on April 29, 2011.

### **Compliance**

The Utilities Division Compliance Section shows no outstanding compliance issues.

Mirabell is in good standing with the Corporations Division of the Commission.

Mirabell submitted an Arizona Department of Revenue tax clearance application form dated April 26, 2011, and has not received its “certificate of compliance letter of good standing”.

Mirabell has not paid the second half of its 2009 property tax liability and the full 2010 property tax liability.

### **Engineering Analysis and Recommendations**

Staff inspected Mirabell's plant facilities on June 8, 2011. A complete discussion of Staff's technical findings and recommendations and a complete description of the water system are provided in the attached Engineering Report.

### **Rate Base**

Staff's adjustments increased the Company's proposed rate base by \$3,854, from \$18,494 to \$22,348, as shown on Schedule BCA-2, page 1. Details of Staff's adjustments are discussed below.

### **Plant in Service**

Staff made no adjustment to the Company's plant in service, as shown on Schedule BCA-2, pages 1, and 2.

### **Accumulated Depreciation**

Staff made no adjustment to the Company's accumulated depreciation, as shown on Schedule BCA-2, pages 1 and 3.

### **Working Capital**

Mirabell did not claim any working capital allowance. Staff's adjustments A and B resulted in a net increase to working capital of \$3,854, from \$0 to \$3,854, as shown on Schedule BCA-2, pages 1 and 4.

Cash working capital was calculated by using the formula method which equals one-eighth of the operating expenses less depreciation, taxes, purchased power and purchased water expenses plus one twenty-fourth of purchased power and purchased water expenses.

### **Operating Income Statement**

#### **Operating Revenue**

Staff's adjustments to operating revenue resulted in a net decrease of \$22,433, from \$55,384 to \$32,951, as shown on Schedule BCA-3, page 1. Details of Staff's adjustments are discussed below.

Metered Water Revenue – Adjustment A decreases metered water revenue by \$22,433, from \$55,384 to \$32,951, as shown on Schedule BCA-3 pages 1 and 2. Staff's adjustment reflects an addition of \$41 as a result of Staff's calculation of the metered water revenue using the billing determinants provided by the Company and the removal of \$22,474 in metered water

revenue included by the Company as a pro forma adjustment revenue increase to reflect its proposed revenue.

Operating Expenses

Staff's adjustments to operating expenses resulted in a net decrease of \$5,531, from \$50,052 to \$44,521, as shown on Schedule BCA-3, page 1. Details of Staff's adjustments are presented below.

Purchased Power - Adjustment B decreases purchased power expense by \$80, from \$10,526 to \$10,446, as shown on Schedule BCA-3 pages 1 and 2. This adjustment reflects the removal of \$80 in out of test year expense.

Office Supplies and Expense - Adjustment C decreases this account by \$2,857, from \$3,357 to \$500, as shown on Schedule BCA-3 pages 1 and 2. Staff estimated office supplies expense to be \$500, as the Company's future expense is difficult to determine now that it has hired a contract operator. The Company should be required to prove its office supplies expense amount in any future rate case.

Outside Services Expense - Adjustment D decreases outside services expense by \$853, from \$15,253 to \$14,400, as shown on Schedule BCA-3 pages 1 and 2. Staff's adjustment reflects the SUM management fee of \$14,400 going forward. Staff also removes \$853 in prior contractors expense.

Water Testing Expense - Adjustment E decreases water testing expense by \$216, from \$1,078 to 862, as shown on Schedule BCA-3, pages 1 and 2. This adjustment reflects the annual water testing costs determined and reported in the attached Engineering Report.

Insurance - General Liability - Adjustment F decreases general liability insurance by \$200, from \$1,465 to \$1,265, as shown on Schedule BCA-3, pages 1 and 2. Staff's adjustment reflects the amount updated and supported by the Company's documentation for general liability insurance expense.

Regulatory Commission Expense - Adjustment G decreases regulatory commission expense by \$409, from \$409 to \$0, as shown on Schedule BCA-3 pages 1 and 2. This adjustment reflects Staff's transfer of \$216 from regulatory commission's expense to miscellaneous expense and removes \$193 in out of test year expense.

Miscellaneous Expense - Adjustment H increases miscellaneous expense by \$716, from \$93 to \$809, as shown on Schedule BCA-3 pages 1 and 2. This adjustment reflects Staff's transfer of \$216 from regulatory commission's expense to miscellaneous expense and adds \$500 in supported expense.

Depreciation Expense - Adjustment I increases depreciation expense by \$733, from \$3,454 to \$4,187, as shown on Schedule BCA-3 pages 1 and 2. Staff's depreciation expense

reflects application of Staff's recommended depreciation rates to Staff's recommended plant balances.

Taxes Other Than Income – Adjustment J decreases taxes other than income by \$468, from \$468 to \$0, as shown on Schedule BCA-3 pages 1 and 4. This adjustment reflects Staff's removal of sales tax paid by customers. As a pass-through tax, this should not be reflected as an expense for rate making purposes.

Property Tax Expense – Adjustment K decreases property tax expense by \$525, from \$3,061 to \$2,536 as shown on Schedule BCA-3 pages 1 and 4. Staff calculated its property tax amount using a modified version of the Arizona Department of Revenue's ("ADOR") property tax method.

Income Tax Expense - Adjustment L decreases income tax expense by \$1,371, from \$1,371 to \$0 as shown on Schedule BCA-3 pages 1 and 4. Staff's adjusted operating income for the test year shows an operating loss of \$11,570. The Company did not owe income tax for the test year.

### **Revenue Requirement**

The Company's narrative portion of the application states that the Company needs a rate increase to maintain the aging water system and to cope with rising operating costs.

Mirabell has a small rate base of \$22,348, which will not allow Staff to use a rate of return calculation to derive revenue requirement. Consequently, Staff elects to use cash flow in calculating the revenue requirement.

The Company proposes no increase over the adjusted test year revenue of \$55,384. The Company's adjusted test year revenue provides an operating income of \$5,332 for an operating margin of 9.63 percent as shown on Schedule BCA-1.

Staff recommends total operating revenue of \$55,384, an increase of \$22,433, or 68.09 percent above the Staff-adjusted test year revenue of \$32,951. Staff's recommended revenue provides an operating income of \$8,135 for an operating margin of 14.69 percent as shown on Schedule BCA-1.

Staff's recommended increase provides the Company with adequate cash flow to meet its normal operating expenses, maintain its aging water system, make payments on the Commission-approved WIFA loan and fund contingencies.

### **Rate Design**

Schedule BCA-4 presents a complete list of the Company's present, proposed, and Staff's recommended rates and charges.

The Company's proposed rates would increase the typical residential 3/4-inch meter residential bill with a median usage of 5,081 gallons from \$32.97 to \$54.89, an increase of \$21.91 or 66.5 percent, as shown on BCA-5.

Staff's recommended rates would increase the typical residential 3/4-inch meter residential bill with a median usage of 5,081 gallons from \$32.97 to \$48.83, an increase of \$15.85 or 48.1 percent, as shown on BCA-5. However taking into account the termination of the current \$2.77 per month surcharge, the actual bill impact on a median usage customer would be a monthly increase of \$13.08 or 36.6 percent, as shown on Schedule BCA-5.1.

### **Miscellaneous Service Charges**

The Company does not propose to change the establishment charge (after hours) of \$35. Additionally, the Company proposes to add a reconnect (delinquent after hours) charge of \$40. Staff agrees that an additional fee for service provided after normal business hours is appropriate when such service is at the customer's request or for the customer's convenience. Such a tariff compensates the utility for additional expenses incurred from providing after-hours service. Moreover, Staff concludes that it is appropriate to apply an after-hours service charge in addition to the charge for any utility service provided after hours at the customer's request or for the customer's convenience. Therefore, Staff recommends the elimination of both the \$35 establishment charge (after hours) and the Company proposed \$40 reconnect (delinquent after hours) charge and, instead, Staff recommends the creation of a separate \$35 after-hours service charge.

The Company proposes to change the reconnection (delinquent) charge from \$25 to \$35. Staff finds \$30 as a reasonable charge for the service and recommends it.

The Company proposes to change the deferred payment charge - per month from 1% to 1.5 percent. Staff concurs with the Company that this is a reasonable charge for the service and recommends it.

The Company proposes to change the meter reread (if correct) charge from \$15 to \$25. Staff finds \$20 as a reasonable charge for the service and recommends it.

The Company proposes a late payment charge - per month of 1.5 percent. Staff concurs with the Company that this is a reasonable charge for the service and recommends it.

### **Service Line and Meter Installation Charges**

The Company has requested changes to its service line and meter installation charges as shown on Schedule BCA-4.

Staff has recommended service line and meter installation charges based upon an analysis of costs as discussed in the attached Engineering Report. Further, since the Company may at times install meters on existing service lines, it would be appropriate for some customers to only be charged for the meter installation. Therefore, Staff recommends separate service line and meter installation charges. Staff recommends approval of Staff's service line and meter installation charges are shown on Schedule BCA-4.

### **Debt Service Coverage**

Presently the Company has two Commission-approved long-term debts. The first WIFA loan is a 10-year amortizing loan in the amount of \$15,000, authorized in Decision No. 62977, on November 2, 2000. Because this loan is on target to be paid off in December 2011, it is excluded in this analysis. The second WIFA loan is a 5-year amortizing loan in the amount of \$10,243, authorized in Decision No. 71943, on November 1, 2010. Schedule BCA-6 shows that for the year ending December 31, 2010, Mirabell Debt Service Coverage ("DSC") was not meaningful. The pro forma analysis shows that Staff's recommended revenue with a fully drawn \$10,243, 5-year amortizing loan at 1.575 percent results in a pro forma 6.79 DSC. The pro forma DSC shows that Mirabell would have adequate cash flow to meet all obligations including the authorized debt.

### **Staff Recommendations**

Staff recommends approval of its recommended rates and charges as shown in Schedule BCA-4.

Staff further recommends that the Company be ordered to file with Docket Control, a tariff schedule of its new rates and charges within 30 days after the effective date of the Decision in this proceeding.

Staff further recommends that the WIFA loan surcharge authorized in Decision No. 71943 be discontinued when the rates approved in this rate case become effective.

Staff further recommends that the Company be ordered to use the depreciation rates delineated in Exhibit 6, of the attached Engineering Report.

Staff further recommends that the Company file with Docket Control, as a compliance item in this docket within 90 days of the effective date of a decision in this proceeding, at least three best management practices in the form of tariffs that substantially conform to the templates created by Staff, for the Commission's review and consideration.

Staff further recommends that the Company be required to coordinate the reading of its well meter and individual customer meters on a monthly basis and report this data in its Commission Annual Report for the year ending 2011. Staff further recommends if the reported water loss in the Annual Report is greater than 10 percent, the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to less than 10 percent. If the Company believes it is not cost effective to reduce the water loss to less than 10 percent, it should submit a detailed cost benefit analysis to support its opinion. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item no later than June 30, 2012.

**SUMMARY OF FILING**

	-- Present Rates --		-- Proposed Rates --	
	Company as Filed	Staff as Adjusted	Company as Filed	Staff as Adjusted
<b>Revenues:</b>				
Metered Water Revenue	\$55,384	\$32,951	\$55,384	\$55,384
Unmetered Water Revenue	0	0	0	0
Other Water Revenues	0	0	0	0
<b>Total Operating Revenue</b>	<b>\$55,384</b>	<b>\$32,951</b>	<b>\$55,384</b>	<b>\$55,384</b>
<b>Operating Expenses:</b>				
Operation and Maintenance	\$41,698	\$37,799	\$41,698	\$37,799
Depreciation	3,454	4,187	3,454	4,187
Property & Other Taxes	3,529	2,536	3,529	3,111
Income Tax	1,371	0	1,371	2,152
<b>Total Operating Expense</b>	<b>\$50,052</b>	<b>\$44,521</b>	<b>\$50,052</b>	<b>\$47,249</b>
<b>Operating Income/(Loss)</b>	<b>\$5,332</b>	<b>(\$11,570)</b>	<b>\$5,332</b>	<b>\$8,135</b>
<b>Rate Base O.C.L.D.</b>	<b>\$18,494</b>	<b>\$22,348</b>	<b>\$18,494</b>	<b>\$22,348</b>
<b>Rate of Return - O.C.L.D.</b>	<b>28.83%</b>	<b>N/M</b>	<b>28.83%</b>	<b>36.40%</b>
<b>Operating Margin</b>	<b>9.63%</b>	<b>N/M</b>	<b>9.63%</b>	<b>14.69%</b>
<b>Debt Service Coverage Ratio (Pre-Tax)</b>	<b>4.76</b>	<b>N/M</b>	<b>4.76</b>	<b>6.79</b>

**RATE BASE**

	----- Original Cost -----		Staff
	Company	Adjustment	
Plant in Service	\$189,754	\$0	\$189,754
Less:			
Accum. Depreciation	170,820	0	170,820
<b>Net Plant</b>	<b>\$18,934</b>	<b>\$0</b>	<b>\$18,934</b>
Less:			
Plant Advances	0	0	0
Accumulated Deferred Income Taxes	440	0	440
<b>Total Advances</b>	<b>440</b>	<b>0</b>	<b>440</b>
Contributions Gross	0	0	0
Less:			
Amortization of CIAC	0	0	0
<b>Net CIAC</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Deductions</b>	<b>440</b>	<b>0</b>	<b>440</b>
Plus:			
1/24 Power	0	\$435 A	\$435
1/8 Operation & Maint.	0	3,419 B	3,419
Inventory	0	0	0
Prepayments	0	0	0
<b>Total Additions</b>	<b>\$0</b>	<b>\$3,854</b>	<b>\$3,854</b>
<b>Rate Base</b>	<b>\$18,494</b>	<b>\$3,854</b>	<b>\$22,348</b>

*Explanation of Adjustment:*

- A - Refer to Schedule BCA-2, Page 4
- B - Refer to Schedule BCA-2, Page 4

**PLANT ADJUSTMENTS**

	Company Exhibit	Adjustment	Staff Adjusted
301 Organization	\$0	\$0	\$0
302 Franchises	0	0	0
303 Land & Land Rights	0	0	0
304 Structures & Improvements	2,306	0	2,306
307 Wells & Springs	20,065	0	20,065
311 Electrical Pumping Equipment	49,851	0	49,851
320 Water Treatment Equipment	0	0	0
330 Distribution Reservoirs & Standpipes	0	0	0
330.1 Storage Tank	34,677	0	34,677
330.2 Pressure Tank	0	0	0
331 Transmission & Distribution Mains	63,381	0	63,381
333 Services	14,308	0	14,308
334 Meters & Meter Installations	4,451	0	4,451
335 Hydrants	0	0	0
336 Backflow Prevention Devices	0	0	0
339 Other Plant and Misc. Equipment	0	0	0
340 Office Furniture & Equipment	715	0	715
341 Transportation Equipment	0	0	0
343 Tools Shop & Garage Equipment	0	0	0
344 Laboratory Equipment	0	0	0
345 Power Operated Equipment	0	0	0
346 Communication Equipment	0	0	0
347 Miscellaneous Equipment	0	0	0
348 Other Tangible Plant	0	0	0
105 C.W.I.P.	0	0	0
<b>TOTALS</b>	<b>\$189,754</b>	<b>\$0</b>	<b>\$189,754</b>

**ACCUMULATED DEPRECIATION ADJUSTMENT**

	<u>Amount</u>
Accumulated Depreciation - Per Company	\$ 170,820
Accumulated Depreciation - Per Staff	170,820
<b>Total Adjustment</b>	<b>\$0</b>

ACCT		ACCUMULATED DEPRECIATION		
<u>No.</u>	<u>Description</u>	<u>Staff</u>	<u>Company</u>	<u>Staff</u>
		<u>Calculated</u>	<u>Application</u>	<u>Adjustment</u>
301	Intangibles	\$ -	\$ -	\$ -
303	Land and Land Rights	-	-	-
304	Structures and Improvements	2,306	2,306	-
307	Wells and Srings	20,065	20,065	-
311	Electrical Pumping Equipment	30,917	30,917	-
320	Water Treatment Equipment	-	-	-
330	Distribution Reservoirs & Standpipes			
330.1	Storage Tank	34,677	34,677	-
330.2	Pressure Tank			
331	Transmission and Distribution Mains	63,381	63,381	-
333	Services	14,308	14,308	-
334	Meters and Meter Installation	4,451	4,451	-
335	Hydrants	-	-	-
339	Other Plant and Miscellaneous Equipment	-	-	-
340	Office Furniture and Fixtures	715	715	-
340.1	Computers and Software	-	-	-
341	Transportation Equipment	-	-	-
343	Tools and Work Equipment	-	-	-
345	Power Operated Equipment	-	-	-
346	Communications Equipment	-	-	-
348	Other Tangible Plant	-	-	-
	Total	<u>\$ 170,820</u>	<u>\$ 170,820</u>	<u>\$ -</u>

**STAFF PLANT ADJUSTMENTS**

A -	WORKING CAPITAL (1/24 Purchased Pwr & Wtr) Per Company	\$0	
	Per Staff	<u>\$435</u>	<u>\$ 435</u>

To reflect Staff's calculation of cash working capital based on Staff's recommendations for purchased power and purchase water.

B -	WORKING CAPITAL (1/8 operation & Maint exp.) Per Company	\$0	
	Per Staff	<u>3,419</u>	<u>\$ 3,419</u>

To reflect Staff's calculation of cash working capital based on Staff's recommendations for operation and maintenance expense (excluding purchased power and purchased water expenses).

**STATEMENT OF OPERATING INCOME**

	Company Exhibit	Staff Adjustments		Staff Adjusted
<b>Revenues:</b>				
461 Metered Water Revenue	\$55,384	(\$22,433)	A	\$32,951
460 Unmetered Water Revenue	0	0		0
474 Other Water Revenues	0	0		0
<b>Total Operating Revenue</b>	<b>\$55,384</b>	<b>(\$22,433)</b>		<b>\$32,951</b>
<b>Operating Expenses:</b>				
601 Salaries and Wages	\$0	\$0		\$0
610 Purchased Water	0	0		0
615 Purchased Power	10,526	(80)	B	10,446
618 Chemicals	0	0		0
620 Repairs and Maintenance	5,319	0		5,319
621 Office Supplies & Expense	3,357	(2,857)	C	500
630 Outside Services	15,253	(853)	D	14,400
635 Water Testing	1,078	(216)	E	862
641 Rents	0	0		0
650 Transportation Expenses	2,310	0		2,310
657 Insurance - General Liability	1,465	(200)	F	1,265
665 Regulatory Commission Expense	409	(409)	G	0
666 Regulatory Commission Expense - Rate Case	1,888	0		1,888
675 Miscellaneous Expense	93	716	H	809
403 Depreciation Expense	3,454	733	I	4,187
408 Taxes Other Than Income	468	(468)	J	0
408.11 Property Taxes	3,061	(525)	K	2,536
409 Income Tax	1,371	(1,371)	L	0
<b>Total Operating Expenses</b>	<b>\$50,052</b>	<b>(\$5,531)</b>		<b>\$44,521</b>
<b>OPERATING INCOME/(LOSS)</b>	<b>\$5,332</b>	<b>(\$16,902)</b>		<b>(\$11,570)</b>

**STAFF ADJUSTMENTS**

A -	METERED WATER REVENUE - Per Company	\$55,384	
	Per Staff	32,951	( <u>\$22,433</u> )
	To add \$41 in metered water revenue per Company's submitted bill count and remove \$22,474 in pro forma metered water revenue claimed by the Company.		
B -	PURCHASED POWER - Per Company	\$10,526	
	Per Staff	10,446	( <u>\$80</u> )
	To remove \$80 in out of test year expense.		
C -	OFFICE SUPPLIES & EXPENSE - Per Company	\$3,357	
	Per Staff	500	( <u>\$2,857</u> )
	To remove \$2,857 in unnecessary office supplies expense going forward.		
D -	OUTSIDE SERVICES - Per Company	\$15,253	
	Per Staff	14,400	( <u>\$853</u> )
	To recognize \$14,400 in Southwestern Utilities Management fee going forward.		
E -	WATER TESTING - Per Company	\$1,078	
	Per Staff	862	( <u>\$216</u> )
	To reflect annual water testing expense, per Staff's Engineering report.		
F -	GENERAL LIABILITY INSURANCE - Per Company	\$1,465	
	Per Staff	1,265	( <u>\$200</u> )
	To adjust to the updated and supported general liability insurance expense.		
G -	REGULATORY COMMISSION EXPENSE - Per Company	\$409	
	Per Staff	0	( <u>\$409</u> )
	To transfer \$216 to miscellaneous expense and remove \$193 in out of test year expense.		
H -	MISCELLANEOUS EXPENSE - Per Company	\$93	
	Per Staff	809	<u>\$716</u>
	To add \$500 in miscellaneous expense and \$216 transfer from regulatory commission expense.		

**STAFF ADJUSTMENTS (Cont.)**

I - DEPRECIATION - Per Company \$3,454  
Per Staff 4,187 733

To reflect application of Staff's recommended depreciation rates to Staff's recommended plant, by account.

**Pro Forma Annual Depreciation Expense:**

Operating Income Adjustment I - Test Year Depreciation Expense

LINE NO.	DESCRIPTION	[A]	[B]	[C]	[D]	[E]
		Plant In Service Per Staff	NonDepreciable or Fully Depreciated Plant	Depreciable Plant Col A - Col B	Depreciation Rate	Depreciation Expense (Col C x Col D)
1	301 - Organization Cost	\$ -	\$ -	-	0.00%	\$ -
2	302 - Franchise Cost	-	-	-	0.00%	-
3	303 - Land and Land Rights	-	-	-	0.00%	-
4	304 - Structures and Improvements	\$2,306	2,306	-	3.33%	-
5	305 - Collecting and Impounding Res.	-	-	-	2.50%	-
6	306 - Lake River and Other Intakes	-	-	-	2.50%	-
7	307 - Wells & Spring	\$20,065	20,065	-	3.33%	-
8	308 - Infiltration Galleries and Tunnels	-	-	-	6.67%	-
9	309 - Supply Main	-	-	-	2.00%	-
10	310 - Power Generation Equip.	-	-	-	5.00%	-
11	311 - Electric Pumping Equipment	\$49,851	22,221	27,630	12.50%	3,454
12	320 - Water Treatment Equipment	-	-	-	-	-
13	320.1 Water Treatment Plants	-	-	-	3.33%	-
14	320.2 Solution Chemical Feeders	-	-	-	20.00%	-
15	330 - Distribution Resrvr & Standpipe	-	-	-	-	-
16	330.1 Storage Tanks	\$34,677	34,677	-	2.22%	13
17	330.2 Pressure Tanks	-	-	-	5.00%	-
18	331 - Transmission & Distr. Mains	\$63,381	63,381	-	2.00%	720
19	333 - Services	\$14,308	14,308	-	3.33%	-
20	334 - Meter & Meter Installations	\$4,451	4,451	-	8.33%	-
21	335 - Hydrants	-	-	-	2.00%	-
22	336 - Backflow Prevention Devices	-	-	-	6.67%	-
23	339 - Other Plant & Misc Equipment	-	-	-	6.67%	-
24	340 - Office Furniture and Fixtures	\$715	715	-	6.67%	-
25	340.1 Computers and Softwares	-	-	-	20.00%	-
26	341 - Transportation Equipment	-	-	-	20.00%	-
27	343 - Tools & Work Equipment	-	-	-	5.00%	-
28	345 - Power Operated Equipment	-	-	-	5.00%	-
29	346 - Communication Equipment	-	-	-	10.00%	-
30	347 - Miscellaneous Equipment	-	-	-	10.00%	-
31	348 - Other Tangible Plant	-	-	-	-	-
32	Total Plant	\$189,754	\$162,124	\$27,630		\$4,187
33						
34	Composite Depreciation Rate (Depr Exp / Depreciable Plant):					15.15%
35	CIAC:					\$ -
36	Amortization of CIAC (Line 33 x Line 34):					\$ -
37						
38	<b>Pro Forma Annual Depreciation Expense</b>					
39						
40	Plant in Service					\$189,754
41	Less: Non Depreciable Plant					-
42	Fully Depreciable Plant					162,124
43	Depreciable Plant					\$27,630
44	Times: Staff Proposed Depreciation Rate					15.15%
45	Depreciation Expense Before Amortization of CIAC:					\$ 4,187
46	Less Amortization of CIAC:					\$ -
47	<b>Test Year Depreciation Expense - Staff:</b>					<b>\$ 4,187</b>
48	Depreciation Expense - Company:					\$ 3,454
49	<b>Staff's Total Adjustment:</b>					<b>\$ 733</b>

**STAFF ADJUSTMENTS**

J -	TAXES OTHER THAN INCOME - Per Company	\$468	
	Per Staff	0	<u>(\$468)</u>

To remove sales taxes paid by customers.  
As a pass-through tax it is not included in revenue, so should not be included in expenses.

K -	PROPERTY TAXES - Per Company	\$3,061	
	Per Staff	2,536	<u>(\$525)</u>

To reflect property tax expense using the Arizona Department of Revenue property method.

L -	INCOME TAX - Per Company	\$1,371	
	Per Staff	0	<u>(\$1,371)</u>

To reflect the removal of pro forma income tax amount on an operating loss.

**RATE DESIGN**

Monthly Usage Charge	Present	Company	Staff
	Rates	Proposed	Recommended
5/8" x 3/4" Meter	NT	\$23.00	\$ 20.00
3/4" Meter	\$ 22.00	\$ 34.50	30.00
1" Meter	35.00	57.00	50.00
1 1/2" Meter	62.00	115.00	100.00
2" Meter	105.00	184.00	160.00
3" Meter	NT	368.00	320.00
4" Meter	NT	575.00	500.00
6" Meter	NT	\$ 1,150.00	1,000.00
Gallons in Minimum	0	0	0
<b>Commodity Rates (Per 1,000 gallons)</b>			
<b>3/4 - inch Meter</b>			
First Tier - 0 - 4,000 gallons	\$ 2.00	N/A	N/A
Second Tier - 4,001 - 12,000 gallons	2.75	N/A	N/A
Third Tier - Over 12,000 gallons	3.50	N/A	N/A
<b>All Other Meter Sizes</b>			
First Tier - 0 - 12,000 gallons	\$ 2.75	N/A	N/A
Second Tier - Over 12,000 gallons	\$ 3.50	N/A	N/A
<b>5/8 x 3/4 &amp; 3/4 - inch Meter Sizes</b>			
First Tier - 0 - 3,000 gallons	N/A	\$ 3.50	N/A
Second Tier - 3,001 - 10,000 gallons	N/A	4.75	N/A
Third Tier - Over 10,000 gallons	N/A	6.00	N/A
<b>5/8 x 3/4 &amp; 3/4 - inch Meter Sizes</b>			
First Tier - 0 - 2,000 gallons	N/A	N/A	2.25
Second Tier - 2,001 - 8,000 gallons	N/A	N/A	4.00
Third Tier - Over 8,000 gallons	N/A	N/A	7.40
<b>All Other Meter Sizes</b>			
First Tier - 0 - 10,000 gallons	N/A	\$ 4.75	\$ 4.00
Second Tier - Over 10,000 gallons	N/A	\$ 6.00	\$ 7.40

Service Line and Meter Installation Charges	Company			-----Company Proposed-----			-----Staff Recommended-----			
	Current Rates	Service Line Charges	Meter Charges	Total Charges	Service Line Charges	Meter Charges	Total Charges	Service Line Charges	Meter Charges	Total Charges
5/8" x 3/4" Meter	N/A	\$430.00	\$130.00	\$560	\$ 430	\$ 130	\$ 560			
3/4" Meter	480	430	230	\$660	430	230	660			
1" Meter	575	480	290	\$770	480	290	770			
1 1/2" Meter	780	535	500	\$1,035	535	500	1,035			
2" Meter Turbine	1,340	815	1,020	\$1,835	815	1,020	1,835			
2" Meter Compound	N/A	815	1,865	\$2,680	815	1,865	2,680			
3" Meter Turbine	N/A	1,030	1,645	\$2,675	1,030	1,645	2,675			
3" Meter Compound	N/A	1,150	2,520	\$3,670	1,150	2,520	3,670			
4" Meter Turbine	N/A	1,460	2,620	\$4,080	1,460	2,620	4,080			
4" Meter Compound	N/A	1,640	3,595	\$5,235	1,640	3,595	5,235			
6" Meter Turbine	N/A	2,180	4,975	\$7,155	2,180	4,975	7,155			
6" Meter Compound	N/A	2,300	6,870	\$9,170	2,300	6,870	9,170			
Over 6-inch	N/A	N/A	N/A	N/A	Actual Cost	Actual Cost	Actual Cost			

Service Charges	Present	Company	Staff
Establishment	\$25.00	\$25.00	\$25.00
Establishment (After Hours)	35.00	35.00	NT
Reconnection (Delinquent)	25.00	35.00	\$30.00
Reconnection (Delinquent after hours)	NT	40.00	NT
Meter Test (If Correct)	40.00	40.00	\$40.00
Deposit	*	*	*
Deposit Interest Per Annum	**	**	**
Re-Establishment (Within 12 Months)	**	**	**
NSF Check	25.00	25.00	\$25.00
Deferred Payment - Per Month	1%	1.50%	1.50%
Meter Re-Read (If Correct)	15.00	25.00	\$20.00
Late Payment Charge-Per Month	NT	1.50%	1.50%
Service Charge (After Hours)	N/A	N/A	\$35.00
<b>Monthly Service Charge for Fire Sprinkler</b>			
4" or Smaller	\$0.00	\$0.00	***
6"	0.00	0.00	***
8"	0.00	0.00	***
10"	0.00	0.00	***
Larger than 10"	0.00	0.00	***

\* Per Commission Rules (R14-2-403.B)  
\*\* Number of months off system times the monthly minimum (R14-2-403(D)).  
\*\*\* 2.00% of monthly minimum for a comparable size meter connection but no less than than \$10.00 per month. The service charge for fire sprinklers is only applicable for service lines separate and distinct from the primary water service line.

NT = No Tariff

**TYPICAL BILL ANALYSIS**  
**3/4 - Inch Meter**  
**WITHOUT REFLECTION OF EMERGENCY SURCHARGE**

Average Number of Customers: 46

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	7,883	\$40.68	\$68.19	\$27.52	67.6%
Median Usage	5,081	\$32.97	\$54.89	\$21.91	66.5%
<u>Staff Recommended</u>					
Average Usage	7,883	\$40.68	\$60.03	\$19.35	47.6%
Median Usage	5,081	\$32.97	\$48.83	\$15.85	48.1%

**Present & Proposed Rates (Without Taxes)**  
**3/4 - Inch Meter**

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$22.00	\$34.50	56.8%	\$32.00	45.5%
1,000	24.00	38.00	58.3%	34.25	42.7%
2,000	26.00	41.50	59.6%	36.50	40.4%
3,000	28.00	45.00	60.7%	40.50	44.6%
4,000	30.00	49.75	65.8%	44.50	48.3%
5,000	32.75	54.50	66.4%	48.50	48.1%
6,000	35.50	59.25	66.9%	52.50	47.9%
7,000	38.25	64.00	67.3%	56.50	47.7%
8,000	41.00	68.75	67.7%	60.50	47.6%
9,000	43.75	73.50	68.0%	67.90	55.2%
10,000	46.50	78.25	68.3%	75.30	61.9%
15,000	62.50	108.25	73.2%	112.30	79.7%
20,000	80.00	138.25	72.8%	149.30	86.6%
25,000	97.50	168.25	72.6%	186.30	91.1%
50,000	185.00	318.25	72.0%	371.30	100.7%
75,000	272.50	468.25	71.8%	556.30	104.1%
100,000	360.00	618.25	71.7%	741.30	105.9%
125,000	447.50	768.25	71.7%	926.30	107.0%
150,000	535.00	918.25	71.6%	1,111.30	107.7%
175,000	622.50	1,068.25	71.6%	1,296.30	108.2%
200,000	710.00	1,218.25	71.6%	1,481.30	108.6%

Mirabell Water Company  
Docket No. W-02368A-11-0185  
Test Year Ended: December 31, 2010

Schedule BCA-5.1

### TYPICAL BILL ANALYSIS

3/4 - Inch Meter

WITH REFLECTION OF THE EMERGENCY SURCHARGE IN CURRENT RATES

Average Number of Customers: 46

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	7,883	\$43.45	\$68.19	\$24.75	57.0%
Median Usage	5,081	\$35.74	\$54.89	\$19.14	53.6%
<u>Staff Recommended</u>					
Average Usage	7,883	\$43.45	\$60.03	\$16.58	38.2%
Median Usage	5,081	\$35.74	\$48.83	\$13.08	36.6%

**WIFA LOAN FINANCIAL ANALYSIS**

Staff Adjusted Test Year and Recommended Revenue Reflecting  
the Effects of Company's Existing Loan \$10,243 Debt<sup>1</sup>

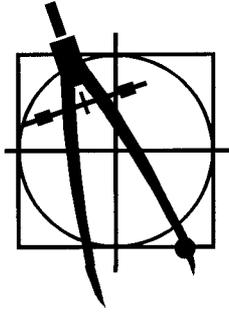
**INCOME STATEMENT**

	<u>Test Year</u>	<u>Pro Forma</u>
Operating Revenue:	<b>\$32,951</b>	<b>\$ 55,384</b>
Operating Expenses:		
Purchased Water/Pumping Power	\$10,446	\$10,446
Admin. & General	\$21,172	21,172
Maintenance & Testing	\$6,181	6,181
Depreciation (d)	\$4,187	4,187
Property Taxes	\$2,536	3,111
Other taxes	0	0
Total Operating Expense	<u><b>\$44,521</b></u>	<u><b>\$45,098</b></u>
Pre-Tax Operating Income (a)	<b>(\$11,570)</b>	<b>\$10,286</b>
Interest Expense (b)	<u>33</u>	<u>147</u>
Pre-Tax Net Income	<u><b>(\$11,603)</b></u>	<u><b>\$10,139</b></u>
Principal Repayment (c)	\$1,747	\$ 1,985
Reserve/Replacement Deposit (e)	0	0
<b>DSC</b>		
[(a) + (d)] + [(b) + (c)]	-4.15	6.79

**CAPITAL STRUCTURE**

Short-term Debt	\$0	0.0%	\$ 1,984.62	16.4%
Long-term Debt	\$1,824	100.0%	\$10,082	83.6%
Common Equity	\$0	0.0%	\$0	0.0%
Total Capital	\$1,824	100.0%	\$12,067	100.0%

<sup>1</sup> Five-year amortizing loan at 1.575 percent per annum.



**Engineering Report  
Mirabell Water Company  
Prepared By  
Dorothy Hains, P. E.  
Docket Nos. W-02368A-11-0185  
(Rates)**

**August 24, 2011**

**EXECUTIVE SUMMARY**

**RECOMMENDATIONS:**

1. Arizona Corporation Commission Utilities Division Staff ("Staff") recommends the depreciation rates by individual National Association of Regulatory Utility Commissioners category, as delineated in Exhibit 6. (See §J and Exhibit 6 for a discussion and a tabulation of the recommended rates.)
2. Staff recommends approval of the meter and service line installation charges listed under the columns labeled "Staff Recommendation" in Table 6. Staff further recommends that Mirabell Water Company ("Mirabell" or "Company") charge "actual cost" for service meters 6 inch and larger. (See §K of report for discussion and details.)
3. Staff recommends estimated annual water testing costs of \$862 for the Mirabell. (See §I and Table 5 for discussion and details.)
4. Staff recommends that the Company file with Docket Control, as a compliance item in this docket and within 90 days of the effective date of a decision in this proceeding, at least three BMPs in the form of tariffs that substantially conform to the templates created by Staff for Commission's review and consideration. (See §K of report for discussion and details.)
5. Staff recommends that Mirabell be required to coordinate the reading of its well meter and individual customer meters on a monthly basis and report this data in its Commission Annual Report for year ending 2011. Staff further recommends if the reported water loss in the Annual Report is greater than 10 percent, the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to less than 10 percent. If the Company believes it is not cost effective to reduce the water loss to less than 10 percent, it should submit a detailed cost benefit analysis to support its opinion. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item no later than June 30, 2012. (See §D of report for discussion and details.)

**CONCLUSIONS:**

1. A check of the Commission Utilities Division Compliance Database indicates there are no delinquent compliance items for the Company. (See §H of report for discussion and details.)
2. Mirabell is located in the Tucson Active Management Area and the Arizona Department of Water Resources has determined that Mirabell is currently in compliance with departmental requirements governing water providers and/or community water systems. (See §G of report for discussion and details.)
3. Arizona Department of Environmental Quality has determined that the Mirabell is currently in compliance with its requirements and is delivering water that meets the water quality standards required by Arizona Administrative Code, Title 18, Chapter 4. (See §G of report for discussion and details.)
4. Mirabell has approved cross connection and curtailment tariffs. (See §K of report for discussion and details.)
5. Mirabell has adequate storage and well production to serve its existing customers and reasonable growth. (See §C of report for discussion and details.)

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**ENGINEERING REPORT  
MIRABELL WATER COMPANY, INC.  
DOCKET NO. W-01546A-11-0004 (RATES)**

**A. PURPOSE OF REPORT**

This report was prepared in response to the application filed by Mirabell Water Company ("Mirabell" or "Company") with the Arizona Corporation Commission ("ACC" or "the Commission") to increase its water rates.

An inspection of the Company's water system was conducted by Dorothy Hains, Commission Staff Engineer, accompanied by the Southwestern Utility Management, Inc ("SWUM") operators Eddie Morales and Matt Jones on June 8, 2011.

**B. LOCATION OF SYSTEM**

The Company is located approximately 15 miles southwest of the City of Tucson ("Tucson") in Pima County. Attached Exhibits 1 and 2 detail the location of the service area in relation to other Commission regulated companies in Pima County and in the immediate area. The Company serves an area approximately one-half square mile in size that includes a portion of Section 24 in Township 16 South, Range 10 East. Public wastewater service is not available in Mirabell's service area. Wastewater is disposed of via individual septic tank systems.

**C. DESCRIPTION OF SYSTEM**

*I. System Description*

The Company owns Public Water System ("PWS") No. 10-178 which consists of one active well that has 50 gallons per minute ("GPM") capacity, 35,000 gallons of storage capacity, one 2,000 gallon pressure tank, a booster pump station and a distribution system serving approximately 57 metered customers. There is no fire flow requirement for the system. Mirabell has two emergency interconnections with Tucson's water system.<sup>1</sup> Mirabell hired SWMU to operate and manage its water system in April 2011. Exhibit 3 is a schematic drawing of the water system. A detailed listing of the Company's water system facilities are as follows:

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<sup>1</sup> The interconnections with Tucson Water are only used to supply an alternative source of water during emergencies when the Company well is down for repairs.

**Table 1 Plant Data (in Mirabell, PWS #10-178)**

Active Drinking Water Wells

ADWR No.	Year Drilled	Casing Size (inches)	Well Depth (ft)	Well Meter Size (inches)	Pump (HP)	Pump Yield (GPM)	Location
55-624580	1980	8	760	2	15	50	Cherokee Ln/ Scotland St.

Active Storage, Pumping

Location	Structure or equipment	Capacity
Cherokee Ln/ Scotland St.	Pressure tank	One 2,000 gal
	Storage Tank	One 25,000 gal tank & one 10,000 gal tank
	Booster pump station	Two 5-HP
Brook Place/Hunt Rd	Pressure tank	Three 90-gal tanks
	Booster pump station	One 1-HP

Distribution Mains in Mirabell CC&N Area

Diameter (inches)	Material	Length (feet)
2	Poly vinyl chloride ("PVC")	3,722
3	PVC	2,690
6	PVC	630
8	PVC	5,900

Meters in Mirabell CC&N Area

Size (inches)	Quantity
5/8 x 3/4	N/A
3/4	48
1	11
1 1/2	N/A
2	N/A
3 (comp)	N/A
3 (Turbo)	N/A
4 (comp)	N/A
4 (Turbo)	N/A
6 (comp)	N/A
6 (Turbo)	N/A

*II. System Analysis*

The Mirabell water system has adequate storage and source production to serve its existing customers and reasonable growth.

**D. WATER USAGE**

Table 2 summarizes water usage in the Company's CC&N area during the test year (January 2010 to December 2010). Exhibit 4 includes a graph that shows water consumption data in gallons per day ("GPD") per connection during the test year.

**Table 2 Water Usage in Mirabell Water CC&N Area**

Month	Number of Customers	Water Sold (in gallons)	Water pumped (in gallons)	Water purchased (in gallons)	Daily Average (in gpd/customer)
Jan 10	57	261,000	397,000	0	148
Feb 10	57	346,000	294,000	0	217
Mar 10	57	258,000	307,000	0	146
Apr 10	56	248,000	276,000	0	148
May 10	57	546,000	575,000	0	309
Jun 10	58	656,000	670,000	0	377
Jul 10	58	800,000	891,000	0	445
Aug 10	58	683,000	461,000	0	380
Sep 10	59	506,000	1,049,000	0	286
Oct 10	55	628,000	461,000	0	343
Nov 10	58	519,000	414,000	0	315
Dec 10	57	417,000	1,096,000	0	232
total		5,868,000	6,891,000	0	
Average					279

*I. Water Sold*

Based on information provided by the Company, during the test year the Company experienced an overall daily average use of 279 GPD per customer, a high use of 445 GPD per customer, and a low use of 146 GPD per customer. The highest total monthly use occurred in July, when a total of 800,000 gallons were sold to 58 customers. The lowest total monthly use occurred in April, when 248,000 gallons were sold to 56 customers.

*II. Non-account Water*

Non-account water should be 10 percent or less and never more than 15 percent. It is important to be able to reconcile the difference between the water sold and the water produced by the source. A water balance will allow a water company to identify water and revenue losses due to leakage, theft, and flushing, etc. The calculated water loss in the Company's water system was 14.85 percent, which exceeds Staff's recommended 10 percent threshold.

**Table 3 Annual Water Losses**

Calendar Year	Water Sold (gal)*	Water Pumped (gal)*	% Water Loss
2010	5,868,000	6,891,000	14.85
January - May 2011	2,546,503	2,737,100	6.55

\* Based on water use data reported in the Company's Annual Report filed with the Commission.

The Company provided water use data for January through May 2011. Using the data provided, Staff calculated a 6.55 percent water loss in the Company’s water system. The Company has indicated to Staff that it believes the historical water loss for the water system may be due in part to inaccurate and inconsistent data collection. Staff recommends that Mirabell be required to coordinate the reading of its well meter and individual customer meters on a monthly basis and report this data in its Commission Annual Report for year ending 2011 (“Annual Report”).<sup>2</sup> Staff further recommends if the reported water loss in the Annual Report is greater than 10 percent, the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to less than 10 percent. If the Company believes it is not cost effective to reduce the water loss to less than 10 percent, it should submit a detailed cost benefit analysis to support its opinion. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item no later than June 30, 2012.

**E. GROWTH PROJECTION**

During the period of 2001 to 2010 the Company netted an overall reduction in customer connections, customer growth through 2013 is expected to remain flat with 59 connections projected.

**Table 4 Actual and Projected Growth (Mirabell)**

Year	Nos. of Customers	
1999	55	Reported
2000	57	Reported
2001	60	Reported
2002	62	Reported
2003	62	Reported
2004	62	Reported
2005	62	Reported
2006	61	Reported
2007	61	Estimated
2008	59	Reported
2009	55	Reported
2010	57	Reported
2011	59	Estimated
2012	59	Estimated
2013	59	Estimated
2014	59	Estimated
2015	59	Estimated

**F. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (“ADEQ”) COMPLIANCE**

Staff received a compliance status report from ADEQ dated June 13, 2011 in which ADEQ stated that PWS No. 10-178 had no major deficiencies. ADEQ has determined that

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<sup>2</sup> Mirabell shall collect the data needed to accurately complete the water use data sheets contained in the Annual Report form.

Mirabell is currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.

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

Mirabell is located in the Tucson Active Management Area (“AMA”) as designated by ADWR, and is subject to AMA reporting and conservation rules. Staff received a compliance status report from ADWR dated June 13, 2011, in which ADWR has determined that Mirabell is currently in compliance with departmental requirements governing water providers and/or community water systems.

#### **H. ACC COMPLIANCE**

A check of the Commission’s Compliance Section database dated May 26, 2011, indicated that Mirabell has no ACC delinquent compliance items.

#### **I. WATER TESTING EXPENSES**

Mirabell is subject to mandatory participation in the ADEQ Monitoring Assistance Program (“MAP”). Staff calculated the testing costs based on the following assumptions:

1. MAP will do baseline testing on everything except copper, lead, bacteria, and disinfection by-products.
2. The estimated water testing expenses represent a minimum cost based on no “hits” other than lead and copper, and assume compositing of well samples. If any constituents were found, then the testing costs would dramatically increase. ADEQ testing is performed in 3-year compliance cycles. Therefore, monitoring costs are estimated for a 3-year compliance period and then presented on an annualized basis.
3. MAP fees were calculated from the ADEQ MAP invoice for calendar year 2011.
4. All monitoring expenses are based on Staff’s best knowledge of lab costs and methodology and one point of entry.

Table 5 shows the estimated annual monitoring expense, based on participation in the MAP program. Water testing expenses should be adjusted to the annual expense amount of **\$862** (rounded) shown in Table 5.

**Table 5 Water Testing Cost (Mirabell)**

Monitoring – 1 well (Tests per 3 years, unless noted.)	Cost per test	No. of tests per three year period	Total cost per three year period	Annual Cost
Bacteriological – monthly	\$25	36	\$900	\$300
Inorganics – Priority Pollutants	\$300	MAP	MAP	MAP
Radiochemical – (1/ 4 yr)	\$60	MAP	MAP	MAP
Phase II and V:				
IOC's, SOC's, VOC's	\$2,805	MAP	MAP	MAP
Nitrites	\$25	MAP	MAP	MAP
Nitrates – annual	\$25	MAP	MAP	MAP
Asbestos – per 9 years	\$180	2½	MAP	MAP
Lead & Copper – annual*	\$33	15	\$495	\$165
MAP fees (annual)				\$396.49
Total				<b>\$861.49</b>

**J. DEPRECIATION RATES**

Staff recommends the depreciation rates by individual National Association of Regulatory Utility Commissioners (“NARUC”) category, as delineated in Figure 6.

**K. OTHER ISSUES**

*I. Service Line and Meter Installation Charges*

The Company is proposing to revise its meter and service line installation charges. These charges are refundable advances and the Company’s proposed charges are within Staff’s experience of what are reasonable and customary charges. The Company also proposes to charge the actual cost for meters larger than 6-inch. Since the Company may at times install meters on existing service lines, it would be appropriate for some customers to only be charged for the meter installation. Therefore, separate service line and meter charges have been developed by Staff. Staff recommends approval of the meter and service line installation charges listed under the columns labeled “Staff Recommendation” in Table 6. Staff’s separate meter and service line installation charges were developed using the combined charge proposed by the Company. Staff further recommends that the Company be allowed to charge “actual cost” for service meters 6-inch and larger.

**Table 6 Service Line and Meter Installation Charges (Mirabell)**

Meter Size	Current Meter & Service Line Installation Charges	Proposed Service Line Charges	Proposed Meter Charges	Proposed total installation Charge	Staff Recommendation (meter installation charge)	Staff Recommendation (Service Line installation charge)	Staff Recommended total charges
5/8 x 3/4-inch	N/A	\$430	\$130	\$560	\$130	\$430	\$560
3/4-inch	\$480	\$430	\$230	\$660	\$230	\$430	\$660
1-inch	\$575	\$480	\$290	\$770	\$290	\$480	\$770
1½-inch	\$780	\$535	\$500	\$1,035	\$500	\$535	\$1,035
2-inch (Turbine)	\$1,340	\$815	\$1,020	\$1,835	\$1,020	\$815	\$1,835
2-inch (Compound)	N/A	\$815	\$1,865	\$2,680	\$1,865	\$815	\$2,680
3-inch (Turbine)	N/A	\$1,030	\$1,645	\$2,675	\$1,645	\$1,030	\$2,675
3-inch (Compound)	N/A	\$1,150	\$2,520	\$3,670	\$2,520	\$1,150	\$3,670
4-inch (Turbine)	N/A	\$1,460	\$2,620	\$4,080	\$2,620	\$1,460	\$4,080
4-inch (Compound)	N/A	\$1,640	\$3,595	\$5,235	\$3,595	\$1,640	\$5,235
6-inch (Turbine)	N/A	\$2,180	\$4,975	\$7,155	\$4,975	\$2,180	\$7,155
6-inch (Compound)	N/A	\$2,300	\$6,870	\$7,155	\$6,870	\$2,300	\$7,155
Over 6-inch	N/A	N/A	N/A	N/A	Actual Cost	Actual Cost	Actual Cost

*II. Curtailment Tariff*

The Company has an approved Curtailment Tariff.

*III. Cross Connection or Backflow Prevention Tariff*

The Company has an approved Cross Connection & Backflow Tariff.

*IV. Best Management Practices (“BMPs”) Tariff*

(a) Background

In 2008, ADWR added a new regulatory program for the ADWR Third Management Plan for AMAs. The new program, called Modified Non-Per Capita Conservation Program (“Modified NPCCP”), addresses large municipal water providers (cities, towns and private water companies serving more than 250 acre-feet per year) and was developed in conjunction with stakeholders from all AMAs. Participation in the program is required for all large municipal

water providers that do not have a Designation of Assured Water Supply and that are not regulated as a large untreated water provider or an institutional provider.

The Modified NPCCP is a performance-based program that requires participating providers to implement water conservation measures that result in water use efficiency in their service areas. A water provider regulated under the program must implement a required Public Education Program and choose one or more additional BMPs based on its size, as defined by its total number of water service connections. The provider must select the additional BMPs from the list included in the Modified NPCCP Program. The BMPs are a mix of technical, policy, and information conservation efforts.

Although the implementation of the Modified NPCCP is required of large municipal water providers within an AMA, the Commission has previously adopted the BMPs for implementation by Commission regulated small and large water companies.

(b) Recommendations

Staff recommends that the Company file with Docket Control, as a compliance item in this docket and within 90 days of the effective date of a decision in this proceeding, at least three BMPs in the form of tariffs that substantially conform to the templates created by Staff for Commission's review and consideration. The templates created by Staff are available on the Commission's website at <http://www.azcc.gov/Divisions/Utilities/forms.asp>.

Staff further recommends that a maximum of one BMPs may come from the "Public Awareness/Public Relations" or "Education and Training" categories. The Company may request cost recovery of the actual costs associated with the BMPs implemented in its next general rate application.

**EXHIBIT 1**

**Marbell Certificate Service Area**

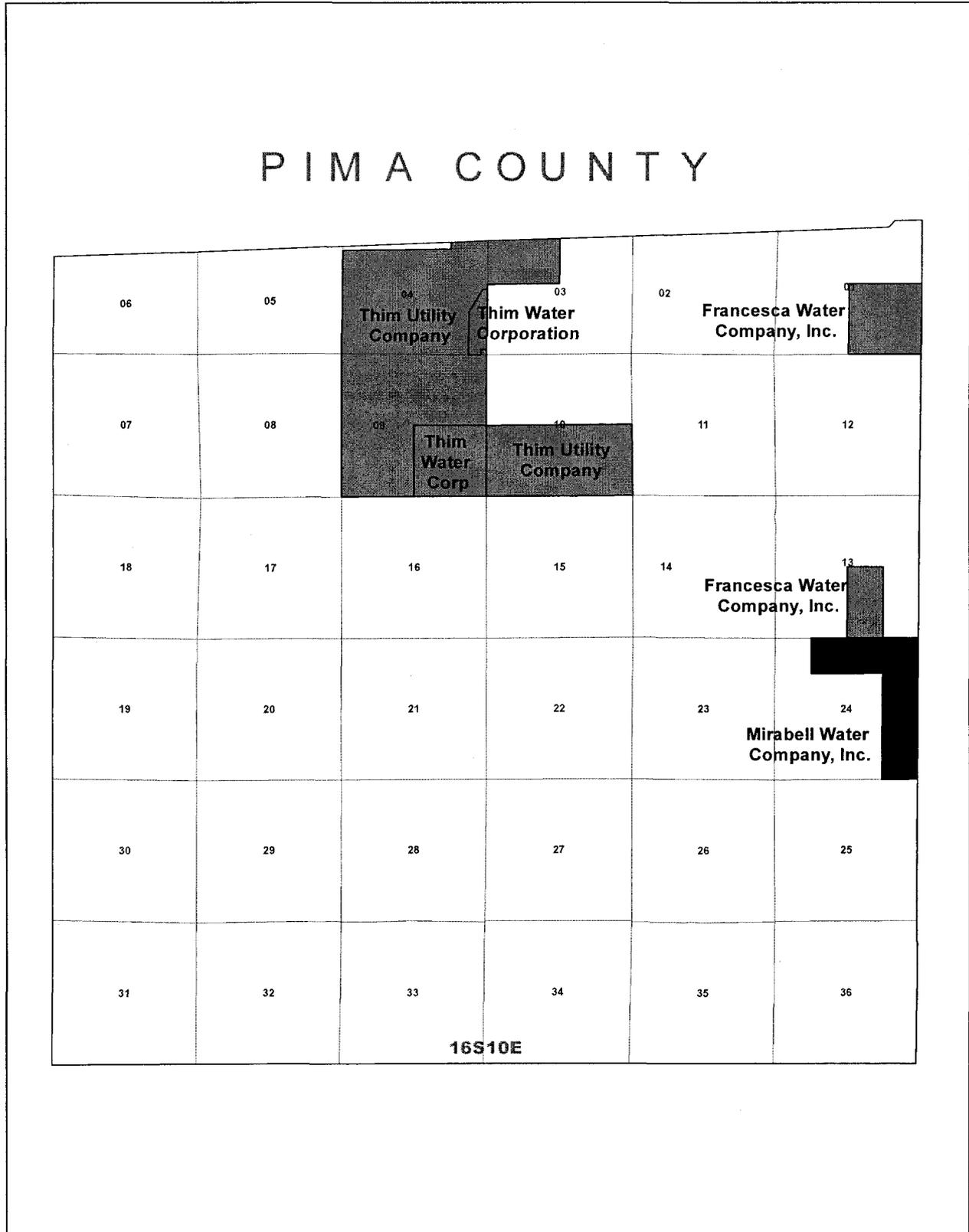
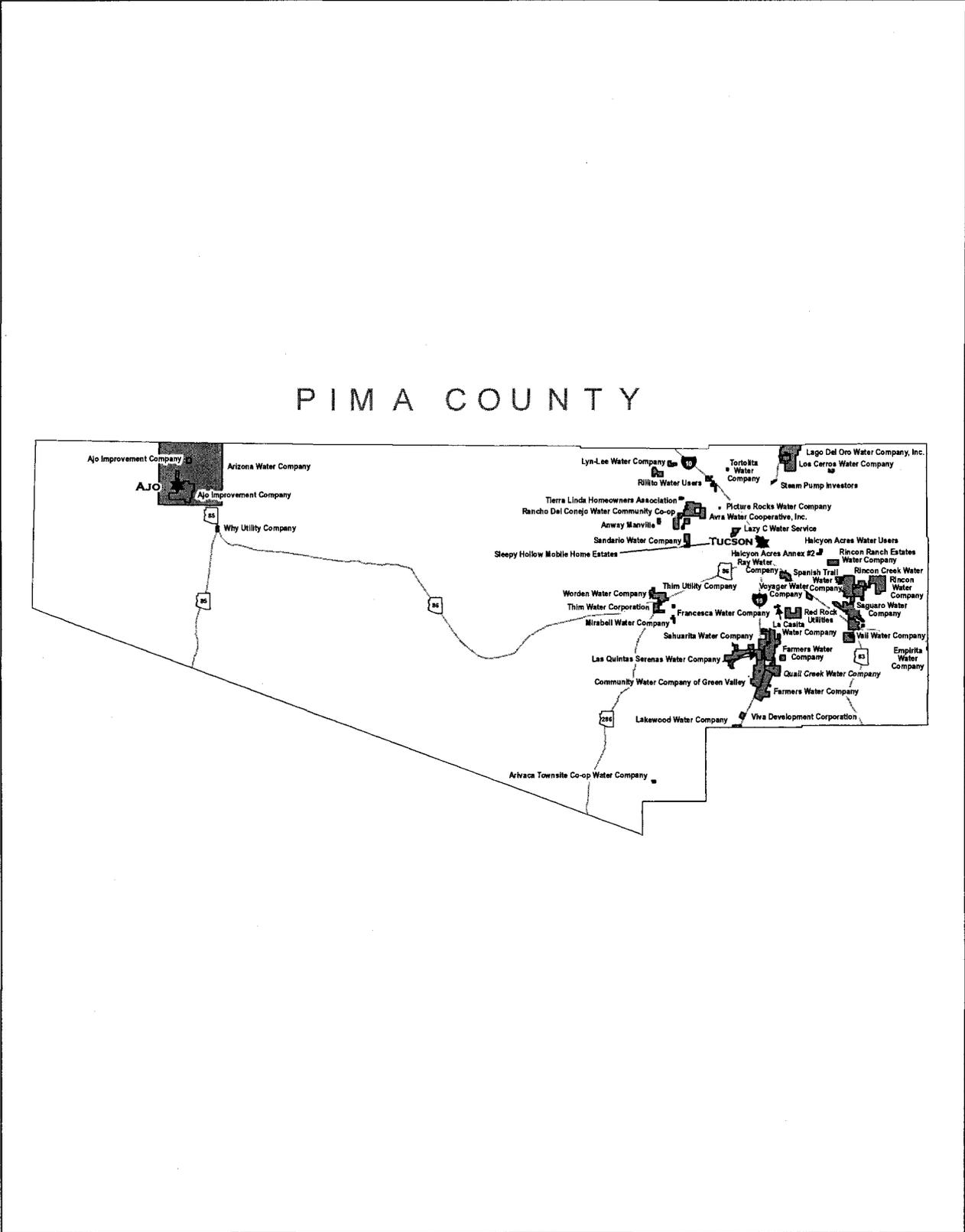
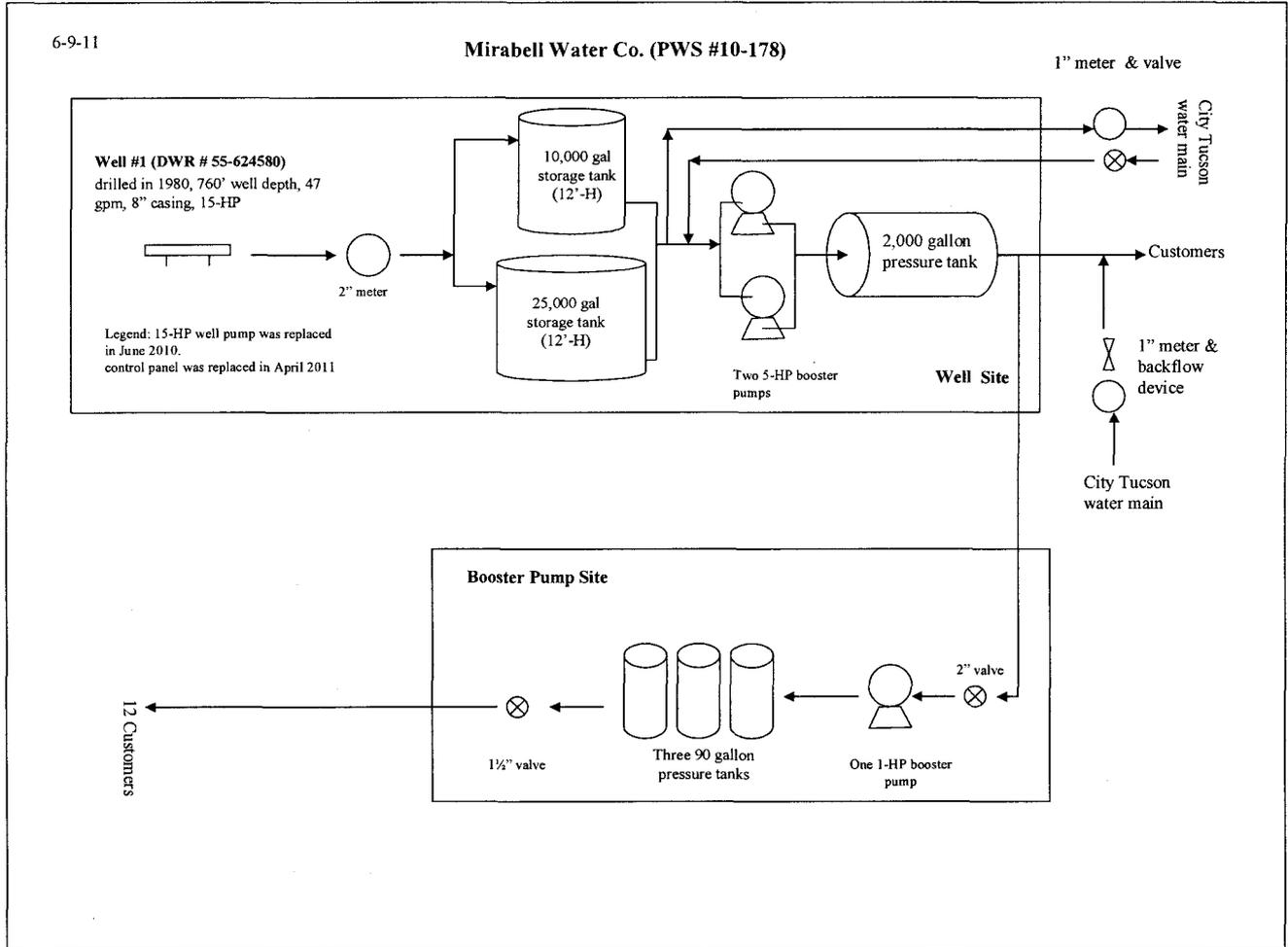


EXHIBIT 2.

LOCATION OF MIRABELL SERVICE AREA

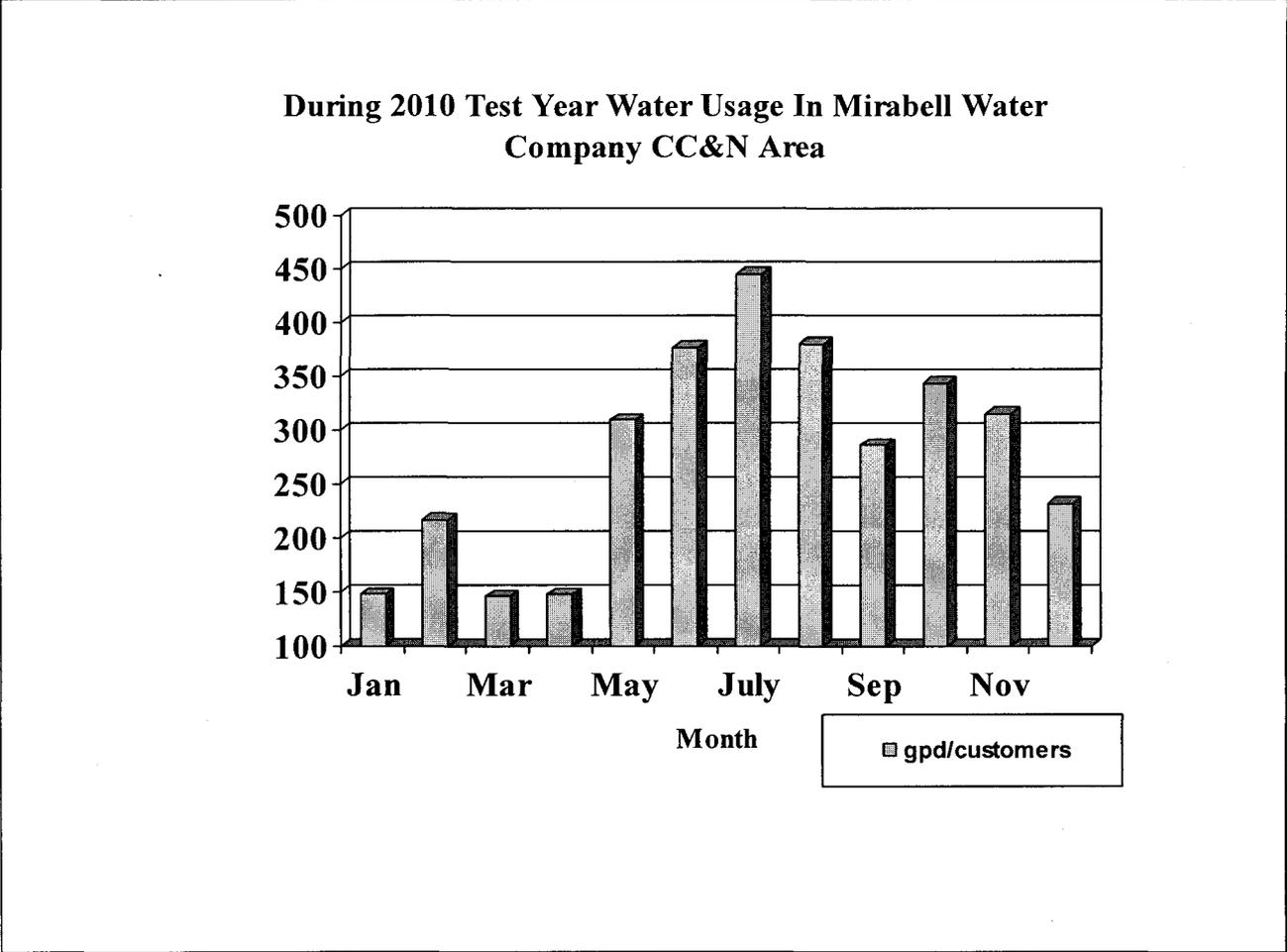


**EXHIBIT 3**  
**SYSTEMATIC DRAWING**



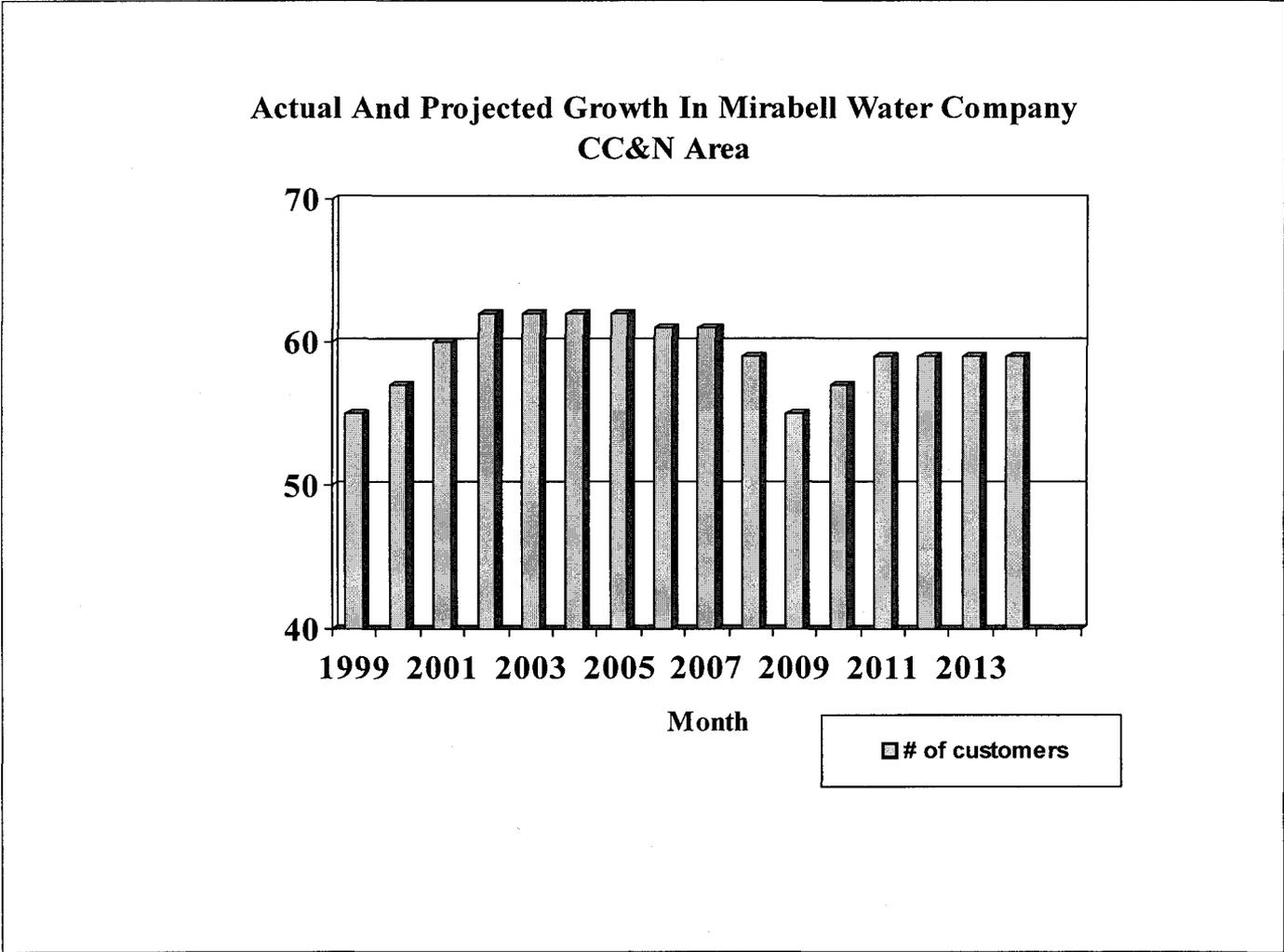
**EXHIBIT 4**

**WATER USAGE IN MIRABELL SERVICE AREA**



**EXHIBIT 5**

**ACTUAL AND PROJECTED GROWTH IN MIRABELL SERVICE AREA**



**EXHIBIT 6**

**Depreciation Rates (Mirabell)**

Acct. No.	Depreciable Plant	Approved Rate (%) (Decision # 68233)	Proposed Rate (%)	Staff Recommended Rate (%)
304	Structures & Improvements	3.33	3.33	3.33
305	Collecting & Impounding Reservoirs	2.50	2.50	2.50
306	Lake, River, Canal Intakes	2.50	2.50	2.50
307	Wells & Springs	3.33	3.33	3.33
308	Infiltration Galleries	6.67	6.67	6.67
309	Raw Water Supply Mains	2.00	2.00	2.00
310	Power Generation Equipment	5.00	5.00	5.00
311	Pumping Equipment	12.5	12.5	12.5
320	Water Treatment Equipment			
320.1	Water Treatment Plants	3.33	3.33	3.33
320.2	Solution Chemical Feeders	20.0	20.0	20.0
330	Distribution Reservoirs & Standpipes			
330.1	Storage Tanks	2.22	2.22	2.22
330.2	Pressure Tanks	5.00	5.00	5.00
331	Transmission & Distribution Mains	2.00	2.00	2.00
333	Services	3.33	3.33	3.33
334	Meters	8.33	8.33	8.33
335	Hydrants	2.00	2.00	2.00
336	Backflow Prevention Devices	6.67	6.67	6.67
339	Other Plant & Misc Equipment	6.67	6.67	6.67
340	Office Furniture & Equipment	6.67	6.67	6.67
340.1	Computers & Software	20.00	20.00	20.00
341	Transportation Equipment	20.00	20.00	20.00
342	Stores Equipment	4.00	4.00	4.00
343	Tools, Shop & Garage Equipment	5.00	5.00	5.00
344	Laboratory Equipment	10.00	10.00	10.00
345	Power Operated Equipment	5.00	5.00	5.00
346	Communication Equipment	10.00	10.00	10.00
347	Miscellaneous Equipment	10.00	10.00	10.00
348	Other Tangible Plant	----	----	----