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MEMORANDUM

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Arizona Corporation Commission

DOCKETED

FEB 05 2001

DATE: February 5, 2001

DOCKETED BY JM

RE: STAFF REPORT FOR THIM UTILITY CO. - E & T DIVISION, APPLICATION FOR A PERMANENT RATE INCREASE (DOCKET NO. W-03293A-00-0600)

Attached is the Staff Report for Thim Utility Co. - E & T Division's application for a permanent rate increase. Staff recommends approval of the rates and charges, subject to Commission approval. Staff further recommends that a hearing not be held in this matter.

DRS:SSA:jbc

Originator: Sonn S. Ahlbrecht

Attachment: Original and Eleven Copies

STAFF REPORT  
UTILITIES DIVISION  
ARIZONA CORPORATION COMMISSION

THIM UTILITY CO. – E & T DIVISION  
DOCKET NO. W-03293A-00-0600

APPLICATION  
FOR A  
PERMANENT RATE INCREASE

FEBRUARY 2001

## STAFF ACKNOWLEDGMENT

The Staff Report for Thim Utility Co. – E & T Division, Docket No. W-03293A-00-0600, was the responsibility of the Staff members listed as follows. Sonn S. Ahlbrecht was responsible for the review and analysis of the Company's application for a permanent rate increase and Staff's recommended revenue requirements, rate base and rate design. Dorothy Hains was responsible for the engineering and technical analysis. Connie E. Walczak was responsible for reviewing the Commission's records on the Company, determining compliance with Commission policies/rules and reviewing customer complaints filed with the Commission.

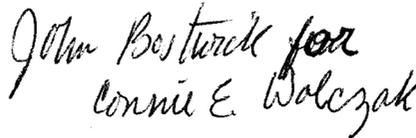


Sonn S. Ahlbrecht  
Rate Analyst II



Dorothy Hains  
Utilities Engineer (Water/Wastewater)

Connie E. Walczak  
Consumer Service Specialist II



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## FACTSHEET

### Company History

CC & N Authorized: Decision No. 54385, dated February 28, 1984  
 Current Permanent Rates: Decision No. 61137, dated September 21, 1998  
 Current Interim Rates: Decision No. 62651, dated June 13, 2000  
 Type of Ownership: Subchapter S Corporation

Location: In Pima County, approximately two miles south of Tucson Municipal Airport on the Old Nogales Highway. The system is located within the Tucson Active Management Area.

Permanent Rate Application filed: August 15, 2000  
 Prior Test Year Ended: June 30, 1997  
 Current Test Year Ended: July 31, 2000

### Rate Structure

	Current Rates	Interim Surcharge	Company Proposed Rates	Staff Proposed Rates
Monthly Charge (Based on a 5/8 x 3/4-inch Meter)	\$15.00	N/A	\$15.00	\$15.00
Gallons in minimum	0	N/A	0	0
Commodity charge per 1,000 gallons from 0 to 10,000 gallons	\$2.10	\$0.94	\$3.04	\$2.60
Commodity charge per 1,000 gallons from 10,001 to 20,000 gallons	\$2.10	\$0.94	\$3.04	\$3.25
Commodity charge per 1,000 gallons in excess of 20,001 gallons	\$3.61	\$0.94	\$4.55	\$3.90

### Customer Analysis

Number of customers in the prior Test Year (06/30/97): 257

Number of customers at the end of the current Test Year (07/31/00): 261

Average number of customers for the current Test Year by meter size:

5/8 x 3/4 - Inch	251
1 - Inch	6
1 1/2 - Inch	1

Seasonal Customers: N/A

Customer notification mailed: August 11, 2000

Number of customer complaints since rate application filed: 30

Percentage of complaints to customer base: 11.49%

### Summary of Filing

Based on Test Year results, as adjusted by Staff, and illustrated on Schedule 1, Thim Utility Co. – E & T Division, (“E & T” or “Company”) realized an operating income of \$3,958 on an Original Cost Rate Base (“OCRB”) of \$193,775 for a 2.04 percent rate of return on its invested capital.

The Company's proposed rates, as filed, produce a revenue level of \$150,429, an operating income of \$23,452, for a rate of return of 9.66 percent on an OCRB of \$242,803. As depicted in Schedule 5, Page 1 of 3, this would increase the typical residential bill for a 5/8 by 3/4-inch meter, with a median usage of 7,664 gallons, by \$7.20 from \$31.09 to \$38.30, for an increase of 23.2 percent.

Staff has recommended a revenue level of \$141,356 resulting in an operating income of \$33,129, for a 17.10 percent rate of return on an OCRB of \$193,775. The typical residential bill for a 5/8 by 3/4-inch meter at median usage of 7,664 gallons would increase by \$3.83 from \$31.09 to \$34.93, for an increase of 12.3 percent.

During the Test Year, E & T served an average of 258 customers in a small area south of the Tucson International Airport along Old Nogales Highway. In the application narrative, the Company states that a permanent increase in rates is necessary due to increasing nitrate levels in the existing wells. As a result of the increasing nitrates, E & T has been forced to purchase water for blending

purposes in order to reduce the nitrate levels within the acceptable range. Currently, E & T has a metered interconnection with the City of Tucson water system, from which water purchased for blending is measured.

This permanent rate increase application is the result of Decision No. 62651, dated June 13, 2000. Per that Decision, E & T was granted emergency interim rates of \$0.94 per 1,000 gallons to recover the increasing costs of blending water to offset the nitrate problem. In addition, Decision No. 62651 ordered the Company to apply for a permanent rate increase within sixty days of the date of the Decision. E & T complied, and filed on August 15, 2000. In the application, the Company requested the interim rates be granted on a permanent basis.

### **Background**

E & T is one of three divisions of Thim Utility Co. The other two divisions operating under the name of Thim Utility Co. are Three Points and Lazy B. E & T received a Certificate of Convenience and Necessity ("CC & N") per Decision No. 54385, dated February 28, 1984. In Decision No. 60388, dated August 29, 1997, the Commission approved the sale of assets and transfer of CC & N of E & T to Thim Utility Co. On September 1, 1997, Mr. Robin Thim took control of the utility, and E & T then became one of the three divisions of Thim Utility Co. Thim Utility Co. is currently operating as an Arizona type "S" corporation, incorporated on January 4, 1991.

E & T's current rates were established in Decision No. 61137, dated September 21, 1998, based upon a Test Year ended June 30, 1997. Prior to this decision, the Company's rates were established by Decision No. 59554 on March 13, 1996. As of Test Year Ended July 30, 2000, the Company was serving 261 customers.

On March 23, 2000, E & T filed an application for an emergency surcharge. As a result of the one well that the Company operates experiencing problems with nitrate levels, E & T has been required to purchase increasing amounts of water from the City of Tucson. The Company is able to provide water with acceptable levels of nitrates per Arizona Department of Environmental Quality ("ADEQ") standards by blending its well water with water purchased from the City of Tucson. Decision No. 62651, dated June 13, 2000, authorized the Company to charge a \$0.94 surcharge per 1,000 gallons on an interim basis, until permanent rates are established.

Additionally, Decision No. 63196, dated November 30, 2000, granted E & T an extension of its CC & N. Within that extension, the Company gained an additional 34 customers that were being served by a private well.

### **Consumer Services**

A search of Consumer Services records revealed a total of nineteen complaints against E & T from 1997 through 2000. Of those nineteen complaints, nine related to quality of service issues,

two high bills, one outage, one repair, one low pressure, one regarding a service line break, and four billing complaints.

Regarding this application, thirty customers have opposed the rate increase proposed by the Company, but there have been no requests for intervention in this case. All consumer concerns have been resolved with the customers, opposing views have been noted and Docketed.

Staff requested a Cross-Connection/Backflow Tariff be filed with the Commission since one had not been filed with the rate increase application. The Tariff became effective by operation of law on October 10, 2000, per Administrative Closure Number 63125.

### **Engineering Analysis and Compliance**

Staff Engineering conducted a field inspection of the Company's system on October 16, 2000. Participants in the inspection included Dorothy Hains, Utilities Engineer; Sonn Ahlbrecht, Rate Analyst II; and Connie Walczak, Consumer Service Specialist II; in the accompaniment of Robin Thim, President of the Company; David Dahl, Water System Operator; and Charlie Thim.

Please refer to Attachment A, Staff's Engineering Report, for a detailed description of the water system, water use data, and growth projections.

As stated in Staff Engineering's Report, an inspection by ADEQ on June 9, 2000, revealed major plant deficiencies. In addition, ADEQ has determined that the systems are not in compliance with maximum contaminant level ("MCL") requirements and the water quality standards of the Safe Drinking Water Act.

In an October 19, 2000, memorandum to Staff Engineering, ADEQ stated that they had not approved the Company's blending plan, and they issued E & T a Notice of Violation ("NOV") on November 23, 1999, due to its nitrate MCL violations. Additionally, they stated that although three quarters of test data from E & T is below the MCL through the "alleged" use of a blending plan, ADEQ cannot determine that this is valid data due to lack of approved engineering controls. Consequently, Staff Engineering recommends that the Company file a copy of documentation from ADEQ stating that the blending plan is approved by ADEQ before increased rates become effective.

Average daily water use per customer was 326 gallons per day during the Test Year, with high usage of 439 gallons per day, and low usage of 222 gallons per day. Staff Engineering calculated the Company's unaccounted-for water at less than one percent, which is very good. Staff Engineering also projected that the Company could potentially grow to 319 customers by 2004, including the connections gained from the recently approved CC & N extension.

Utilizing the ADEQ Monitoring Assistance Program ("MAP") method, Staff Engineering calculated that the Company's water testing expenses will cost approximately \$1,859 per year for the

next three years. For further explanation and detail regarding this calculation, please see the Engineering Report, Attachment A.

E & T is current on its remittance of both property taxes and sales tax. It also appears that the Company has been maintaining their accounts in accordance with the National Association of Regulatory Utility Commissioners (“NARUC”) Uniform System of Accounts that has been adopted by the Commission. However, as discussed in the section of this Report entitled Plant and Service and Accumulated Depreciation, the Company is not retaining proper source documentation for plant additions. Staff recommends that E & T continue to maintain their accounts per NARUC standards, as well as retaining proper documentation for plant additions in the future.

### **Rate Base**

Seven adjustments were made which decreased E & T's proposed rate base by \$49,028, from \$242,803 to Staff's recommended \$193,775 as depicted on Schedule 2, Page 1 of 3. Adjustment A decreased the Company's Plant in Service by \$35,384. Please see the section of this report entitled Plant in Service and Accumulated Depreciation for further information regarding this adjustment.

Accumulated Depreciation is increased by \$5,216 as reflected in Adjustment B. This adjustment is also further discussed in the section of this report entitled Plant in Service and Accumulated Depreciation.

Adjustment C increased Customer Meter Deposits by \$95 to reflect the amount recorded in the Company's general ledger, as opposed to the amount stated in the rate increase application.

Adjustment D increased Contributions in Aid of Construction (CIAC) by \$10,000 to reflect a CIAC authorized in Decision No. 61137. Adjustment E increased Amortization of CIAC by \$2,042 to recognize amortization of the CIAC from July of 1997 through the end of the Test Year at a five percent amortization rate.

The remaining two adjustments, F and G, represent minor decreases to working capital based upon adjustments to operating expenses recommended on the Income Statement.

### **Plant in Service and Accumulated Depreciation**

A total of three adjustments were made to Plant in Service accounts, resulting in a reduction of \$35,384. The decrease is illustrated in detail in Schedule 2, Page 2 of 3.

Decision No. 61137, authorized the Company to install plant in the amount of \$183,339 with the proceeds of a loan from the stockholder. While processing the instant application, Staff discovered that E & T had not installed the specific plant that was authorized in Decision No. 61137. That Decision was based upon the Company's estimate of 7,600 total feet of 8-inch, 6-inch, and 2-

inch pipe, with consideration for hand trenching and contingencies that totaled \$131,784. Also included in the loan recommendation was \$33,000 to install a 25,000 gallon storage tank, \$10,590 to refurbish an existing 25,000 gallon storage tank, and \$7,965 for a truck.

E & T installed 6,158 linear feet of 6-inch, 4-inch, and 2-inch pipe, resulting in not only less linear feet of pipe installed, but also a decreased size. Additionally, the Company installed three 10,000 gallon storage tanks as opposed to one 25,000 gallon storage tank.

Due to the lack of source documentation for the project financed by the proceeds of the stockholder loan, and the changes made to the plan by E & T, it was necessary for Staff Engineering to re-evaluate the cost of the actual plant placed in service. Staff Engineering calculated \$101,813 as the total cost for the revised amount of pipe installed, and reduced the cost of the new storage tank(s) to \$30,000 based upon the change in capacity. The amount to refurbish the existing tank was not adjusted, and the cost of the truck was reduced by \$310 to reflect the amount recorded in the general ledger.

To reflect the changes undertaken by E & T, it was necessary for Staff to adjust both Plant in Service and the loan principal. Please see the section of this Report entitled Interest Expense and Long-Term Debt for information regarding the loan adjustment.

The \$5,360 decrease to Distribution Reservoirs & Standpipes as depicted in Adjustment A is comprised of several elements. The account was first reduced by \$4,500 to adjust to the approved beginning balance of \$87,865 in Decision No. 61137. Staff further reduced this account by \$43,590 to remove proforma additions that were allowed as Plant in Service in the last rate case. Next, the account was increased by \$40,590 based upon Staff Engineering's estimate of reasonable costs for the actual plant improvements placed in service since the last rate case. Finally, Staff increased the account by \$2,140 to reflect the addition of a booster pump during the Test Year.

Adjustment B decreased Transmission & Distribution Mains by \$29,970. Staff reduced the account by \$131,784 to remove proforma additions that were allowed as Plant in Service in the last rate case. Next, the account was increased by \$101,813 based upon Staff Engineering's estimate of reasonable costs for the actual plant improvements placed in service since the last rate case. Finally, it was necessary to increase this plant account by \$1 due to a difference in the beginning balance reported on the Company's application and Decision No. 61137.

A \$54 decrease to Office Furniture & Equipment as depicted in Adjustment C was necessary to correct a Company transposition of numbers on the rate increase application.

Adjustment A increased Accumulated Depreciation by \$5,216 as delineated in Schedule 2, Page 3 of 3. Staff began with the Accumulated Depreciation amount approved in Decision No. 61137 of \$99,279, and added depreciation expense for the interim years of \$33,207. Staff further decreased the account to remove depreciation of \$4,584 related to the proforma plant additions as mentioned above.

## **Operating Revenues**

Staff made two adjustments to Operating Revenue resulting in a decrease of \$6,071 as illustrated by Schedule 3, Page 1 of 4. Adjustment A decreased Metered Water Revenue by \$6,051 to eliminate Transaction Privilege (Sales) Taxes that were included in the Metered Water Revenue figure reported by the Company.

Adjustment B decreased Other Water Revenues by \$20 to remove non-recurring revenue that was received as a result of a bank credit.

## **Operating Expenses**

A total of eight adjustments to Operating Expenses (C through J) resulted in a net decrease of \$13,565 as portrayed in Schedule 3, Page 1 of 4. For further detail, these adjustments, as well as the two adjustments to revenue (A and B), and the interest expense adjustment (K), are illustrated on Schedule 3, Pages 2, 3, and 4.

Adjustment C decreased Purchased Water by \$2,722 from Company reported \$23,123 to Staff recommended \$20,401. This recommendation incorporates Staff Engineering's calculation of an average usage per day of 326 gallons per customer for 260 connections. Annualized, E & T requires 30,937,400 (326 x 260 x 365) gallons to serve the demand of the current population. Staff Engineering estimated the Company would have to purchase thirty-four (34) percent of that amount for blending purposes, or 10,518,716 gallons. Staff then converted that gallonage to Ccf's (one hundred cubic feet) per month, resulting in an average monthly purchased water amount of 1,172 Ccfs. The recommended cost calculation considered other factors including an increase in the amount charged by City of Tucson for purchased water, and the elimination of sales tax paid to City of Tucson due to the filing of an exemption certificate. Staff also removed the excess usage tiers (SS1 and SS2 charges), as they would not apply due to the average monthly purchase amount falling below the tier threshold.

Adjustment D reduced Purchased Power by \$74. During the Test Year, the Company ceased to incur power charges for Well 1, and as a result, usage for Well 2 increased. Instead of completely disallowing usage for Well 1, Staff added that usage to Well 2 amounts to annualize the recommended expense level based upon revised decreased Tucson Electric Power rates, and an increase in the Arizona Corporation Commission assessment rate.

Outside Services was reduced by \$5,504 from Company proposed \$69,354 to Staff recommended \$63,850 as depicted in Adjustment E. Staff's recommended expense level is based upon annualized equipment rental of approximately \$0.25 per connection for 22 working days per month. This results in \$17,050 annually for equipment rental based upon a 260 customer population. Also included in Outside Services are management fees at \$15.00 per connection per month at an annual expense of \$46,800, as opposed to E & T's requested rate of \$18.00 per customer, or \$56,160.

Adjustment F increased Water Testing by \$1,629 based upon Staff Engineering's calculation of water testing costs. For further detail, please refer to Attachment A, Section G, of this report.

Staff increased Miscellaneous Expense by \$1,808 as shown by Adjustment G. This increase is the result of large past due and uncollectable accounts not recognized by the Company. E & T recognizes revenue and expenses on a cash-basis, resulting in bad debts not being recognized on the Income Statement. As a result, revenues and expenses are understated as the result of certain uncollected revenues never being recorded in the general ledger, as well as the offset to expense when the uncollectible account is written off.

Depreciation Expense was decreased by \$2,646 by Adjustment H to reflect the application of the five percent depreciation rate approved in Decision No. 61137, to depreciable plant in service. As itemized in the table below, revised depreciation rates are recommended for each plant account, resulting in a proposed composite depreciation rate of 3.30 percent, or \$10,079 annually as shown on Schedule 1, Proposed Rates, Staff as Adjusted.

Structures and Improvements	3.33%
Wells and Springs	3.33%
Electric Pumping Equipment	12.50%
Water Treatment Equipment	3.33%
Distribution Reservoirs/Standpipes	2.22%
Transmission and Distribution Mains	2.00%
Services	3.33%
Meters & Meter Installations	8.33%
Hydrants	2.00%
Backflow Prevention Devices	6.67%
Other Plant & Misc, Equipment	6.67%
Office Furniture & Equipment	6.67%
Transportation Equipment	20.00%
Tools, Shop & Garage Equipment	5.00%
Laboratory Equipment	10.00%
Power Operated Equipment	5.00%
Communications Equipment	10.00%
Miscellaneous Equipment	10.00%

Adjustment I decreased Taxes Other Than Income by \$6,051 to remove Transaction Privilege (Sales) Taxes that were included in the expense figures reported by the Company. This adjustment to expense is the offset to Adjustment A above regarding sales tax included in Metered Water Revenue.

Adjustment J reduced Property Taxes by \$5 to reflect the 2000 Property Tax Statements

received by the Company from Pima County.

### **Interest Expense and Long-Term Debt**

The Company currently has one outstanding loan in the amount of \$183,339 from the sole stockholder, Robin Thim. The Promissory Note reflects a ten-year loan at a 10.50 percent interest rate, payable in monthly installments of \$2,473.89 that began on December 1, 1998. The loan was approved by Decision No. 61137 as a result of the last rate case proceeding to install plant upgrades.

Due to the substantial changes between the plant approved to be installed with the proceeds of the loan in Decision No. 61137, and the actual plant installed and costs incurred as discussed in the Plant in Service Section of this Report, Staff believes the principal of the loan requires adjustment. Based on Staff Engineering's calculations, Staff recommends that the principal of the note be reduced by \$33,281, from \$183,339 to \$150,058, or monthly payments of \$2,024.81 versus \$2,473.89.

Adjustment K reflects a decrease of \$4,791 to interest expense. Per the revised amortization schedule based upon the updated loan amount, \$13,151 is the amount of interest expense that will accrue for 2001.

### **Rate of Return**

There are several methods to arrive at a fair and reasonable rate of return. Cost of capital studies, cash requirement analysis, operating margin, times interest earned ratio ("TIER") and debt coverage ratio ("DCR"), are the most common methodologies used. The Company is classified as a Class D water utility and as such is not required to file cost of capital studies to arrive at its proposed rate of return. Staff's recommendations for E & T are based upon cash requirement analysis, which resulted in a 17.10 percent rate of return. Staff's proposed rates will allow E & T to continue to service the adjusted debt to the stockholder, as well as provide a cushion for contingencies.

### **Cash Flow and Rate Design**

Based upon the rates proposed by Staff, E & T will realize a 20.44 percent increase in operating revenue that will provide the Company with operating income of \$33,129. This increase will also provide the Company with a positive cash flow of \$18,911 which will provide for both E & T's scheduled loan payments to the stockholder and the Company's working capital needs.

Staff's rate design is comprised of a three-tier commodity rate structure with no gallons included in the monthly minimum charge as depicted in Schedule 4. E & T currently has a two-tier commodity rate structure, with no gallons included in the minimum and a tier break at 20,000 gallons. At Staff proposed rates, the tier structure was modified by adding another tier break at

10,000 gallons.

Staff has recommended that both the amount of revenue requested by E & T, and the rates that produce that revenue be adjusted. The Company requested that the interim commodity surcharge of \$0.94 per 1,000 gallons be made permanent in addition to the existing commodity rate. Based upon the results of audit findings, Staff believes a revenue requirement of \$141,356 and a more evenly distributed three-tier rate structure is appropriate for this Company.

### **Staff Recommendations**

Staff recommends approval of the rates and charges presented in Schedule 4 of this Report.

Staff further recommends approval of the above rates and charges without a hearing.

Staff further recommends that in addition to the collection of its regular rates and charges, E & T shall collect from its customers their proportionate share of any Privilege, Sales or Use Tax as provided for in A.A.C. R14-2-409.D.

Staff further recommends that the Company maintain its accounts and records in accordance with the NARUC Uniform System of Accounts that has been adopted by the Commission.

Staff further recommends the depreciation rates delineated within this report be approved.

Staff further recommends that E & T decrease the amount of the loan principal approved in Decision No. 61137 from \$183,339 to \$150,058.

Staff recommends that any rate increase shall not become effective until the Company files with the Director of the Utilities Division written documentation that the water system has no MCL violations and is serving water which meets the water quality standards of the Safe Drinking Water Act.

Staff further recommends that the Company file a copy of documentation from ADEQ stating the blending plan is approved by ADEQ before these rates become effective.

Staff further recommends that the Company install additional pressure tank capacity of at least 2,000 gallons by December 31, 2001.

**SUMMARY OF FILING**

	-- PRESENT RATES --		-- PROPOSED RATES --	
	Company as Filed	Staff as Adjusted	Company as Filed	Staff as Adjusted
<b>REVENUE</b>				
Metered Water Revenue	\$121,976	\$115,925	\$148,964	\$139,911
Unmetered Water Revenue	0	0	0	0
Other Water Revenues	1,465	1,445	1,465	1,445
<b>TOTAL OPERATING REVENUE</b>	<b>\$123,441</b>	<b>\$117,370</b>	<b>\$150,429</b>	<b>\$141,356</b>
<b>OPERATING EXPENSES</b>				
Operation and Maintenance	\$102,531	\$97,668	\$102,531	\$97,668
Depreciation	17,910	15,264	17,910	10,079
Property & Other Taxes	6,536	480	6,536	480
Income Tax	0	0	0	0
<b>TOTAL OPERATING EXPENSES</b>	<b>\$126,977</b>	<b>\$113,412</b>	<b>\$126,977</b>	<b>\$108,227</b>
<b>OPERATING INCOME/(LOSS)</b>	<b>(\$3,536)</b>	<b>\$3,958</b>	<b>\$23,452</b>	<b>\$33,129</b>
<b>Rate Base O.C.L.D.</b>	\$242,803	\$193,775	\$242,803	\$193,775
<b>Rate of Return - O.C.L.D.</b>	-1.46%	2.04%	9.66%	17.10%
<b>Times Interest Earned Ratio (Pre-Tax)</b>	-0.20	0.22	1.31	2.52
<b>Debt Service Coverage Ratio (Pre-Tax)</b>	0.48	0.65	1.39	1.46
<b>Operating Margin</b>	-2.86%	3.37%	15.59%	23.44%

- NOTES:
1. The times interest earned ratio (TIER) represents the ability of the Company to pay interest expenses before taxes.
  2. Operating Margin represents the proportion of funds available to pay interest and other below the line or non-ratemaking expenses.

**RATE BASE**

	-- ORIGINAL COST --		Ref	Staff
	Company	Adjustment		
Plant in Service	\$358,900	(\$35,384)	A	\$323,516
Less:				
Accum. Depreciation	122,686	5,216	B	127,902
<b>Net Plant</b>	<b>\$236,214</b>	<b>(\$40,600)</b>		<b>\$195,614</b>
Less:				
Plant Advances	\$0	\$0		\$0
Customer Meter Deposits	3,600	95	C	3,695
<b>Total Advances</b>	<b>\$3,600</b>	<b>\$95</b>		<b>\$3,695</b>
Contributions Gross	\$0	\$10,000	D	\$10,000
Less:				
Amortization of CIAC	0	2,042	E	2,042
<b>Net CIAC</b>	<b>\$0</b>	<b>\$7,958</b>		<b>\$7,958</b>
<b>Total Deductions</b>	<b>\$3,600</b>	<b>\$8,053</b>		<b>\$11,653</b>
Plus:				
1/24 Power	\$1,314	(\$117)	F	\$1,197
1/8 Operation & Maint.	8,875	(258)	G	8,617
Inventory	0	0		0
Prepayments	0	0		0
<b>Total Additions</b>	<b>\$10,189</b>	<b>(\$375)</b>		<b>\$9,814</b>
<b>Rate Base</b>	<b>\$242,803</b>	<b>(\$49,028)</b>		<b>\$193,775</b>

*Explanation of Adjustment:*

- A - See Schedule 2, Page 2 of 3.
- B - See Schedule 2, Page 3 of 3.
- C - To increase item to amount reflected in the Company's General Ledger.
- D - To record Contributions in Aid of Construction (CIAC) approved in Decision No. 61137.
- E - To record amortization of CIAC from balance authorized in Decision No. 61137 through July of 2000.
- F - To adjust working capital allowance based on Staff's adjustments to purchased power and purchased water.
- G - To adjust working capital allowance based on Staff's adjustments to operating expenses.

**PLANT ADJUSTMENT**

	Company Exhibit	Adjustment	Ref	Staff Adjusted
301	Organization	\$0	\$0	\$0
302	Franchises	0	0	0
303	Land & Land Rights	0	0	0
304	Structures & Improvements	4,430	0	4,430
307	Wells & Springs	17,238	0	17,238
311	Pumping Equipment	11,533	0	11,533
320	Water Treatment Equipment	0	0	0
330	Distribution Reservoirs & Standpipes	92,365	(5,360) A	87,005
331	Transmission & Distribution Mains	188,986	(29,970) B	159,016
333	Services	22,666	0	22,666
334	Meters & Meter Installations	7,471	0	7,471
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	2,282	(54) C	2,228
341	Transportation Equipment	11,155	0	11,155
343	Tools Shop & Garage Equipment	0	0	0
344	Laboratory Equipment	0	0	0
345	Power Operated Equipment	512	0	512
346	Communication Equipment	262	0	262
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>\$358,900</b>	<b>(\$35,384)</b>	<b>\$323,516</b>

*Explanation of Adjustment:*

- A - To decrease account by \$4,500 to beginning balance of \$87,865 as approved in Decision No. 61137; to further decrease account by \$43,590 to remove proforma plant additions allowed in the previous rate case not substantiated by invoices; to increase account by \$40,590 based upon Staff Engineering's estimate of plant costs; and to increase account by \$2,140 for a booster pump addition to Plant in Service.
- B - To decrease account by \$131,784 to remove proforma plant additions allowed in the previous rate case and not substantiated by invoices; to increase account by \$101,813 based upon Staff Engineering's estimate of plant costs; and increase by \$1 due to Company reporting beginning plant balance lower than amount approved in Decision No. 61137.
- C - To decrease account by \$54 to reflect the balance approved in Decision No. 61137 due to a Company transposition of numbers on the rate case application.

**ACCUMULATED DEPRECIATION ADJUSTMENT**

	Amount
Accumulated Depreciation - Per Company	\$122,686
Accumulated Depreciation - Per Staff	127,902 A
<b>Total Adjustment</b>	<b>\$5,216</b>

*Explanation of Adjustment:*

- A - Following is detail of the Accumulated Depreciation account beginning with the amount approved in Decision No. 61137, and adding depreciation expense for partial year 1997, 1998, 1999, and partial year 2000 at a five percent depreciation rate. Accumulated Depreciation also had to be reduced for adjustments related to disallowed proforma plant. Additions were computed using the half-year convention method.

Amount approved in Decision No. 61137: \$ 99,279

Add depreciation expense for the following years:

July through December 1997	\$ 4,009	
1998	8,105	
1999	11,929	
January through July 2000	9,164	\$ 33,207

Subtract depreciation on disallowed proforma plant  
from prior rate proceeding: \$ (4,584)

**Accumulated Depreciation at Test Year End: \$ 127,902**

**STATEMENT OF OPERATING INCOME**

	Company Exhibit	Staff Adjustments	Ref	Staff Adjusted
<b>Operating Revenue</b>				
461 Metered Water Revenue	\$121,976	(\$6,051)	A	\$115,925
460 Unmetered Water Revenue	0	0		0
474 Other Water Revenues	1,465	(20)	B	1,445
<b>TOTAL OPERATING REVENUE</b>	<b>\$123,441</b>	<b>(\$6,071)</b>		<b>\$117,370</b>
<b>Operating Expenses</b>				
601 Salaries and Wages	\$0	\$0		\$0
610 Purchased Water	23,123	(2,722)	C	20,401
615 Purchased Power	8,407	(74)	D	8,333
618 Chemicals	0	0		0
620 Repairs and Maintenance	780	0		780
621 Office Supplies & Expense	55	0		55
630 Outside Services	69,354	(5,504)	E	63,850
635 Water Testing	230	1,629	F	1,859
641 Rents	0	0		0
650 Transportation Expenses	0	0		0
657 Insurance - General Liability	0	0		0
659 Insurance - Health and Life	0	0		0
666 Regulatory Commission Expense - Rate Case	37	0		37
675 Miscellaneous Expense	545	1,808	G	2,353
403 Depreciation Expense	17,910	(2,646)	H	15,264
408 Taxes Other Than Income	6,051	(6,051)	I	0
408.11 Property Taxes	485	(5)	J	480
409 Income Tax	0	0		0
<b>TOTAL OPERATING EXPENSES</b>	<b>\$126,977</b>	<b>(\$13,565)</b>		<b>\$113,412</b>
<b>OPERATING INCOME/(LOSS)</b>	<b>(\$3,536)</b>	<b>\$7,494</b>		<b>\$3,958</b>
<b>Other Income/(Expense):</b>				
419 Interest and Dividend Income	\$0	\$0		\$0
421 Non-Utility Income	0	0		0
427 Interest Expense	17,942	(4,791)	K	13,151
4XX Reserve/Replacement Fund Deposit	0	0		0
426 Miscellaneous Non-Utility Expense	0	0		0
<b>TOTAL OTHER INCOME/(EXPENSE)</b>	<b>(\$17,942)</b>	<b>\$4,791</b>		<b>(\$13,151)</b>
<b>NET INCOME/(LOSS)</b>	<b>(\$21,478)</b>	<b>\$12,285</b>		<b>(\$9,193)</b>

**STAFF ADJUSTMENTS**

A -	METERED WATER REVENUE - Per Company	\$121,976	
	Per Staff	115,925	(\$6,051)
	To decrease revenue by amount of sales tax recorded incorrectly as revenue instead of as a liability.		
B -	OTHER WATER REVENUES - Per Company	\$1,465	
	Per Staff	1,445	(\$20)
	To decrease other revenues by amount of non-recurring income due to bank credit.		
C -	PURCHASED WATER - Per Company	\$23,123	
	Per Staff	20,401	(\$2,722)
	To decrease account to projected expense amount based upon Staff Engineering's estimate of amount of water Thim will be required to purchase for blending. Also factored in is the increase in rates charges by City of Tucson, revised SS1 and SS2 amounts, and removal of sales taxes due to the Company filing a sales tax exemption certificate with the City of Tucson.		
D -	PURCHASED POWER - Per Company	\$8,407	
	Per Staff	8,333	(\$74)
	To decrease account to projected expense amount based upon current usage at decreased Tucson Electric Power summer and winter rates, and increased ACC charge.		
E -	OUTSIDE SERVICES - Per Company	\$69,354	
	Per Staff	63,850	(\$5,504)
	To decrease account to reflect as \$15.00 per 260 connections per month for Contract Management, and \$5.46 per 260 connection per month for equipment rental.		
F -	WATER TESTING - Per Company	\$230	
	Per Staff	1,859	\$1,629
	To increase expense to amount recommended by Staff Engineering.		

**STAFF ADJUSTMENTS (Cont.)**

G	-	MISCELLANEOUS EXPENSE - Per Company	\$545	
		Per Staff	2,353	\$1,808

To increase account to reflect Bad Debt Expense recommended by Staff due to large past due balance and uncollectable accounts.

H	-	DEPRECIATION - Per Company	\$17,910	
		Per Staff	15,264	(\$2,646)

*Explanation of Adjustment:*

**Annual Depreciation Expense:**

Plant in Service		\$323,516
Less: Non Depreciable Plant		0
Fully Depreciated Plant		8,245
Depreciable Plant		\$315,271
Times: Authorized Depreciation Rate		5.00%
Credit to Accumulated Depreciation		\$15,764 *
Less: Amort. of CIAC* @ 5.00%		500
<b>Annual Depreciation Expense</b>		<b>\$15,264</b>

**\* Amortization of CIAC:**

Contribution(s) in Aid of Construction (Gross)		\$10,000
Less: Non Amortizable Contribution(s)		0
Fully Amortized Contribution(s)		0
Amortizable Contribution(s)		\$10,000
Times: Staff Proposed Amortization Rate		5.00%
<b>Amortization of CIAC</b>		<b>\$500</b>

I	-	TAXES OTHER THAN INCOME - Per Company	\$6,051	
		Per Staff	0	(\$6,051)

To decrease expense by amount of sales tax booked incorrectly as an expense instead of an offset to a liability account.

J	-	PROPERTY TAXES - Per Company	\$485	
		Per Staff	480	(\$5)

To decrease expense based upon 2000 property tax statements received by the utility from Pima County

**STAFF ADJUSTMENTS (Cont.)**

K - INTEREST EXPENSE - Per Company	\$17,942	
Per Staff	13,151	<u>(\$4,791)</u>

To decrease expense to reflect interest accrual for 2001 based upon the revised loan amount of \$150,058.

**RATE DESIGN**

<u>Monthly Usage Charge</u>	Present	-Proposed Rates-	
	Rates	Company	Staff
5/8" x 3/4" Meter	\$ 15.00	\$ 15.00	\$ 15.00
3/4" Meter	22.50	22.50	22.50
1" Meter	37.50	37.50	37.50
1½" Meter	75.00	75.00	75.00
2" Meter	120.00	120.00	120.00
3" Meter	240.00	240.00	240.00
4" Meter	375.00	375.00	375.00
6" Meter	750.00	750.00	750.00
Per 1,000 Gallons from 1 to 10,000 Gallons	\$ 2.10	\$ 3.04	\$ 2.60
Per 1,000 Gallons from 10,001 to 20,000	2.10	3.04	3.25
Per 1,000 Gallons in excess of 20,000	3.61	4.55	3.90
Gallons Included in Minimum	0	0	0
<u>Service Line and Meter Installation Charges</u>			
5/8" x 3/4" Meter	\$ 370.00	\$ 370.00	\$ 415.00
3/4" Meter	415.00	415.00	455.00
1" Meter	480.00	480.00	540.00
1½" Meter	700.00	700.00	780.00
2" Meter	0.00	0.00	1,340.00
3" Meter	0.00	0.00	1,895.00
4" Meter	0.00	0.00	2,900.00
6" Meter	0.00	0.00	5,470.00
<u>Service Charges</u>			
Establishment	\$ 25.00	\$ 25.00	\$ 25.00
Establishment (After Hours)	37.50	37.50	37.50
Reconnection (Delinquent)	25.00	25.00	25.00
Meter Test (If Correct)	40.00	40.00	40.00
Deposit	*	*	*
Deposit Interest	*	*	*
Re-Establishment (Within 12 Months)	**	**	**
NSF Check	\$ 15.00	\$ 15.00	\$ 15.00
Deferred Payment	1.50%	1.50%	1.50%
Meter Re-Read (If Correct)	\$ 15.00	\$ 15.00	\$ 15.00
<u>Monthly Service Charge for Fire Sprinkler</u>			
4" or Smaller	\$ -	\$ -	***
6"	-	-	***
8"	-	-	***
10"	-	-	***
Larger than 10"	-	-	***

\* Per Commission Rules (R14-2-403.B)  
\*\* Months off system times the minimum (R14-2-403.D)  
\*\*\* 1.00% of Monthly Minimum for a Comparable Sized Meter Connection, but no less than \$5.00 per month. The Service Charge for Fire Sprinklers is only applicable for service lines separate and distinct from the primary water service line.

**TYPICAL BILL ANALYSIS**  
**General Service 5/8 X 3/4 - Inch Meter**

Average Number of Customers: 251

<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	9,741	\$35.46	\$44.61	\$9.16	25.8%
Median Usage	7,664	\$31.09	\$38.30	\$7.20	23.2%
<b>Staff Proposed</b>					
Average Usage	9,741	\$35.46	\$40.33	\$4.87	13.7%
Median Usage	7,664	\$31.09	\$34.93	\$3.83	12.3%

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

<u>Consumption (Gallons)</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$15.00	\$15.00	0.0%	\$15.00	0.0%
1,000	17.10	18.04	5.5%	17.60	2.9%
2,000	19.20	21.08	9.8%	20.20	5.2%
3,000	21.30	24.12	13.2%	22.80	7.0%
4,000	23.40	27.16	16.1%	25.40	8.5%
5,000	25.50	30.20	18.4%	28.00	9.8%
6,000	27.60	33.24	20.4%	30.60	10.9%
7,000	29.70	36.28	22.2%	33.20	11.8%
8,000	31.80	39.32	23.6%	35.80	12.6%
9,000	33.90	42.36	25.0%	38.40	13.3%
10,000	36.00	45.40	26.1%	41.00	13.9%
15,000	46.50	60.60	30.3%	57.25	23.1%
20,000	57.00	75.80	33.0%	73.50	28.9%
25,000	75.05	98.55	31.3%	93.00	23.9%
50,000	165.30	212.30	28.4%	190.50	15.2%
75,000	255.55	326.05	27.6%	288.00	12.7%
100,000	345.80	439.80	27.2%	385.50	11.5%
125,000	436.05	553.55	26.9%	483.00	10.8%
150,000	526.30	667.30	26.8%	580.50	10.3%
175,000	616.55	781.05	26.7%	678.00	10.0%
200,000	706.80	894.80	26.6%	775.50	9.7%

**TYPICAL BILL ANALYSIS**  
**General Service 1 - Inch Meter**

Average Number of Customers: 6

<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	12,726	\$64.22	\$76.19	\$11.96	18.6%
Median Usage	10,500	\$59.55	\$69.42	\$9.87	16.6%
<b>Staff Proposed</b>					
Average Usage	12,726	\$64.22	\$72.36	\$8.13	12.7%
Median Usage	10,500	\$59.55	\$65.13	\$5.58	9.4%

**Present & Proposed Rates (Without Taxes)**  
**General Service 1 - Inch Meter**

<u>Consumption (Gallons)</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$37.50	\$37.50	0.0%	\$37.50	0.0%
1,000	39.60	40.54	2.4%	40.10	1.3%
2,000	41.70	43.58	4.5%	42.70	2.4%
3,000	43.80	46.62	6.4%	45.30	3.4%
4,000	45.90	49.66	8.2%	47.90	4.4%
5,000	48.00	52.70	9.8%	50.50	5.2%
6,000	50.10	55.74	11.3%	53.10	6.0%
7,000	52.20	58.78	12.6%	55.70	6.7%
8,000	54.30	61.82	13.8%	58.30	7.4%
9,000	56.40	64.86	15.0%	60.90	8.0%
10,000	58.50	67.90	16.1%	63.50	8.5%
15,000	69.00	83.10	20.4%	79.75	15.6%
20,000	79.50	98.30	23.6%	96.00	20.8%
25,000	97.55	121.05	24.1%	115.50	18.4%
50,000	187.80	234.80	25.0%	213.00	13.4%
75,000	278.05	348.55	25.4%	310.50	11.7%
100,000	368.30	462.30	25.5%	408.00	10.8%
125,000	458.55	576.05	25.6%	505.50	10.2%
150,000	548.80	689.80	25.7%	603.00	9.9%
175,000	639.05	803.55	25.7%	700.50	9.6%
200,000	729.30	917.30	25.8%	798.00	9.4%

**TYPICAL BILL ANALYSIS**  
**General Service 1 1/2 - Inch Meter**

Average Number of Customers: 1

<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	81,100	\$337.57	\$413.81	\$76.23	22.6%
Median Usage	70,500	\$299.31	\$365.58	\$66.27	22.1%
<u>Staff Proposed</u>					
Average Usage	81,100	\$337.57	\$371.79	\$34.22	10.1%
Median Usage	70,500	\$299.31	\$330.45	\$31.15	10.4%

**Present & Proposed Rates (Without Taxes)**  
**General Service 1 1/2 - Inch Meter**

<u>Consumption (Gallons)</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$75.00	\$75.00	0.0%	\$75.00	0.0%
1,000	77.10	78.04	1.2%	77.60	0.6%
2,000	79.20	81.08	2.4%	80.20	1.3%
3,000	81.30	84.12	3.5%	82.80	1.8%
4,000	83.40	87.16	4.5%	85.40	2.4%
5,000	85.50	90.20	5.5%	88.00	2.9%
6,000	87.60	93.24	6.4%	90.60	3.4%
7,000	89.70	96.28	7.3%	93.20	3.9%
8,000	91.80	99.32	8.2%	95.80	4.4%
9,000	93.90	102.36	9.0%	98.40	4.8%
10,000	96.00	105.40	9.8%	101.00	5.2%
15,000	106.50	120.60	13.2%	117.25	10.1%
20,000	117.00	135.80	16.1%	133.50	14.1%
25,000	135.05	158.55	17.4%	153.00	13.3%
50,000	225.30	272.30	20.9%	250.50	11.2%
75,000	315.55	386.05	22.3%	348.00	10.3%
100,000	405.80	499.80	23.2%	445.50	9.8%
125,000	496.05	613.55	23.7%	543.00	9.5%
150,000	586.30	727.30	24.0%	640.50	9.2%
175,000	676.55	841.05	24.3%	738.00	9.1%
200,000	766.80	954.80	24.5%	835.50	9.0%

**ENGINEERING REPORT  
FOR  
THIM WATER UTILITY, INC. - E & T DIVISION  
DOCKET NO. W-03293A-00-0600**

**A. PURPOSE OF REPORT**

This report was prepared in response to a rate increase and financing application filed by Thim Utility Inc. - E & T Division ("Thim" or "Company"). Dorothy Hains, Sonn Ahlbrecht, and Connie Walczak inspected the water system on October 16, 2000 in the accompaniment of Robin Thim, President of the Company, David Dahl operator of the water system and Charlie Thim.

**B. LOCATION OF COMPANY**

The Company is located in South Tucson, approximately two miles south of the Tucson Airport, along the Old Nogales Highway. Figure 1 indicates the location of the Company within Pima County and Figure 2 shows the Company's certificate area.

**C. DESCRIPTION OF SYSTEM**

The Company's system consists of one well, three 10,000-gallon storage tanks, one 25,000-gallon storage tank, four booster pumps, and one 5,000-gallon pressure tank. The three 10,000-gallon storage tanks were installed in September 1999. Figure 3 is a system schematic of the water system and the detailed facility descriptions are as follows:

The well, its Arizona Department of Water Resources ("ADWR") ID is # 55-52418, has an 8-inch casing to a depth of 400 feet and is equipped with a 15 horsepower ("HP") submersible pump having a flow rate of 150 gallons per minute ("gpm") through 3-inch meter. The ground water is pumped into the storage tanks. Thim utilizes two 5-HP, one 2½-HP and one 7½-HP booster pumps to pressurize the water in the 5,000-gallon pressure tank before delivering it to customers. The 2½-HP and 7½-HP booster pumps were installed in April 1999. A six-foot high chain link fence separates the well site from the surrounding private land. The well site was expanded through a land exchange agreement in 1998. According to Robin Thim, the Company exchanged one of its abandoned wells, the Central Well, for an additional well site easement, and the Central Well was reclassified for irrigation use only. Robin Thim also stated another well, the South Well, was taken out of service in 1998.

Because high nitrate levels have been found in its ground water, Thim purchases water from the City of Tucson ("City") which is blended with its water supply so that the water delivered to customers does not exceed any maximum contaminant level ("MCL") and meets the water quality standards of the Safe Drinking Water Act. To access City water conveniently, Thim installed a 2-inch water line connection to an existing 10-inch PVC City water main on the Old Nogales Highway. In conjunction with the addition to this connection, the Company also installed a 2-inch meter, 2-inch galvanized-iron and copper pipelines and a backflow prevention device.

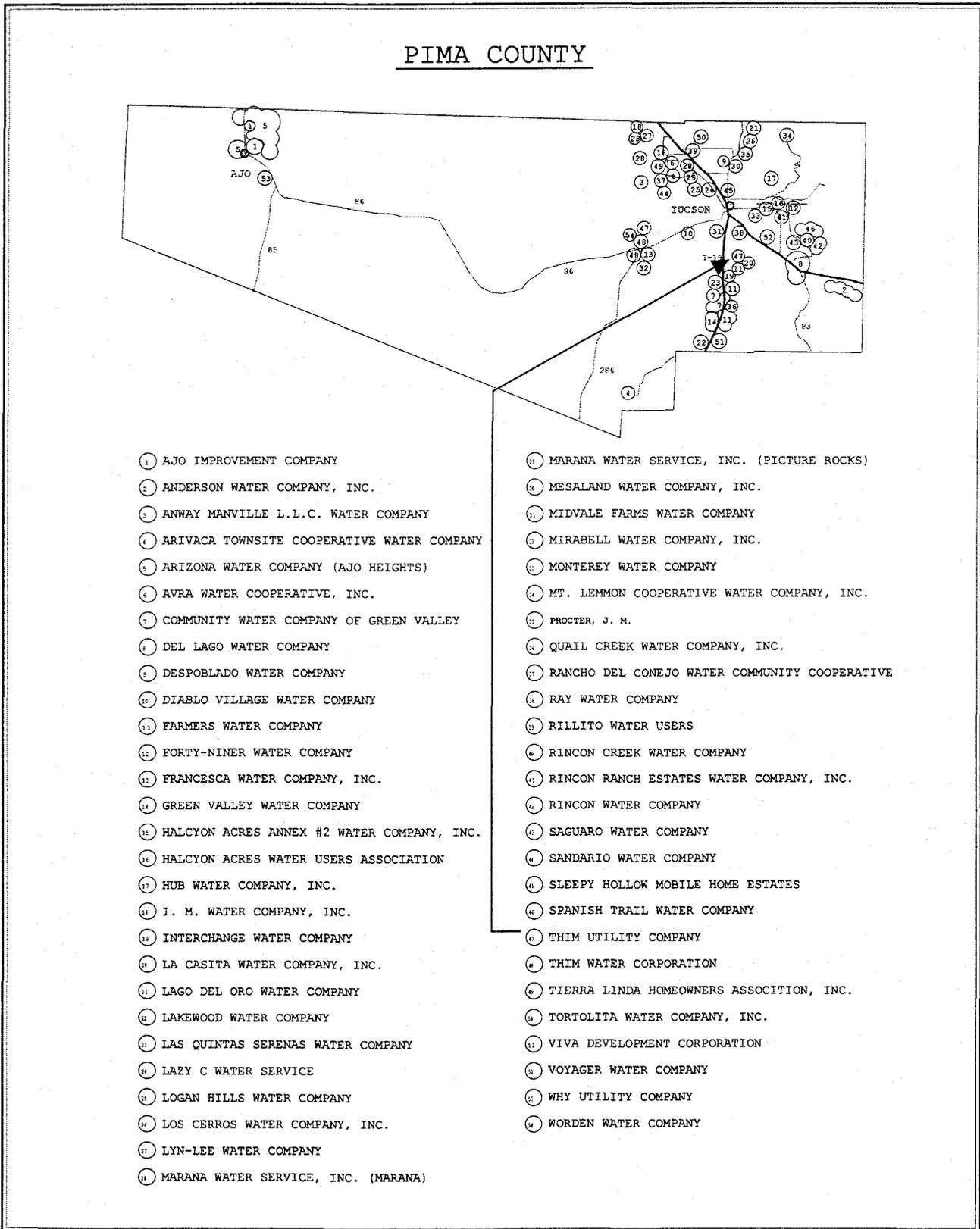
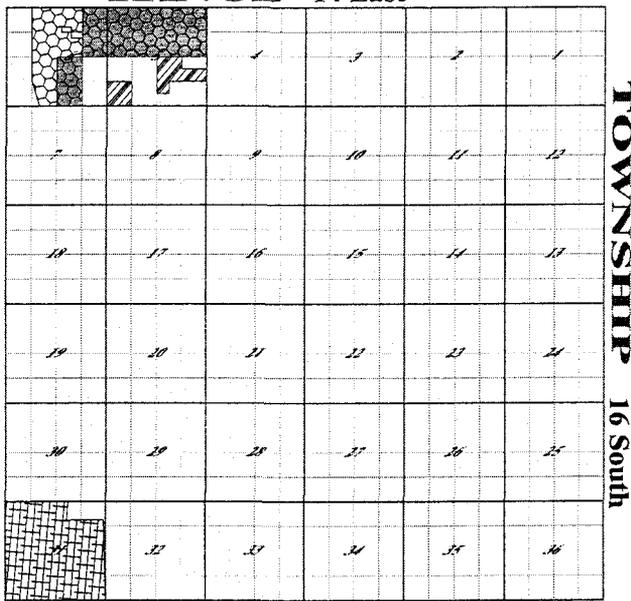


Figure 1. County Map

**COUNTY** = *Pima*

**RANGE** 14 East



-  W-1654 (6)  
Farmers Water Company
-  W-2542 (1)  
La Casita Water Company, Inc.
-  W-3293 (3)  
Thim Utility Company
-  La Casita Water Company, Inc.  
Docket No. W-2542-98-254  
Application for Extension
-  Thim Utility Company  
Docket No. W-3293-00-420  
Application for Extension

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Figure 2. Certificate Area

The Thim system also includes a total of 24,400 feet of distribution system that consists of 1,400 feet of 2-inch PVC pipe, 15,700 feet of 4-inch PVC pipe, 6,400 feet of 6-inch PVC pipes, and 900 feet of 8-inch PVC pipes to serve 261 customers.

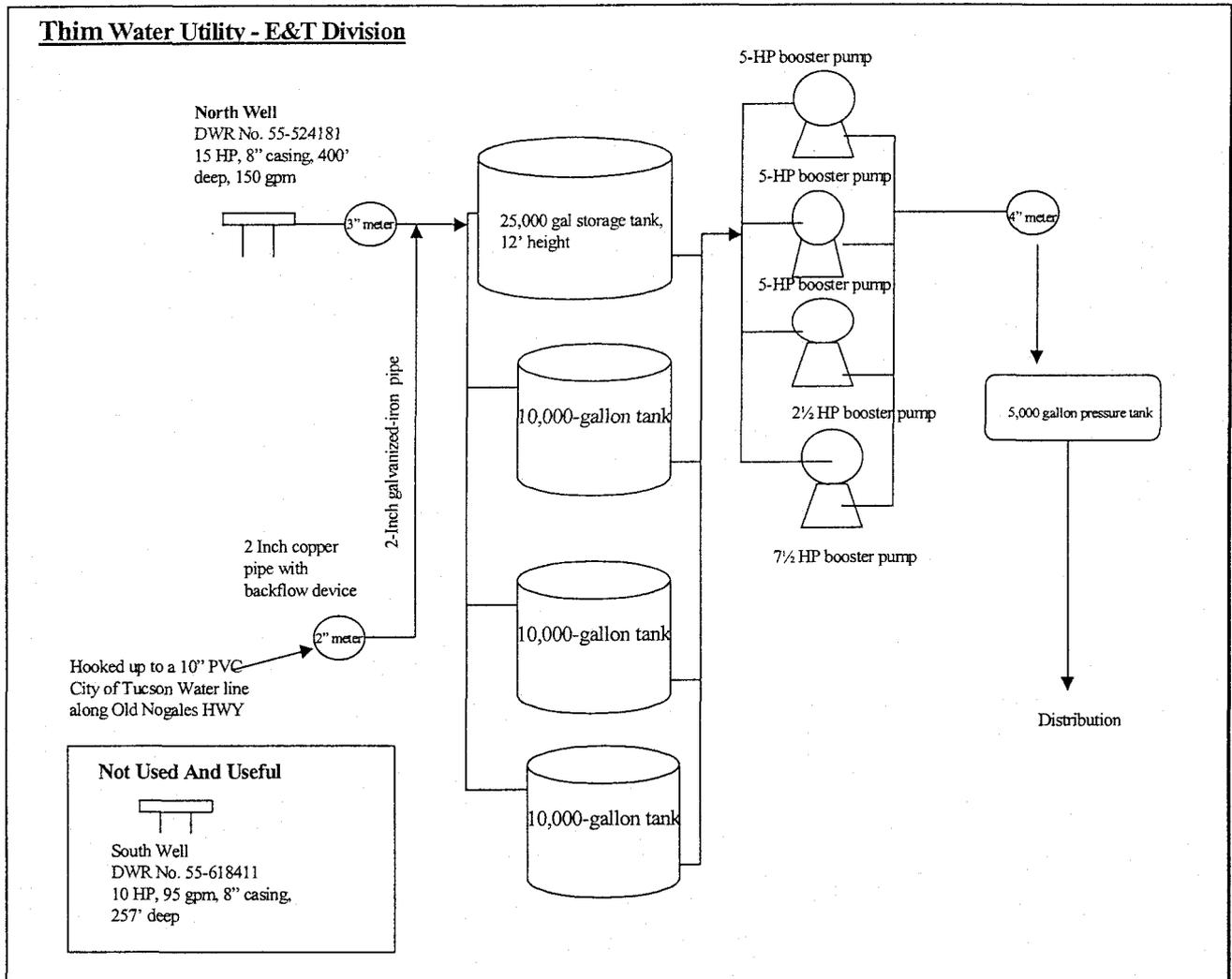


Figure 3. System Schematics

**D. WATER USAGE**

Figure 4 summarizes the Company's water consumption data for the test year, August 1999 through July 2000. During this period, the daily average water use per customer was 326 gallons per day ("gpd") per customer, the highest use was 439 gpd per customer and the lowest use was 222 gpd per customer. The following table lists monthly water use data for the test year.

Table 1. Water Usage

Month	Number of Customers	Total Water Used (gallons)	Daily Average (gal/day/customers)
Aug-99	261	2,783,700	344
Sep 99	259	3,046,230	392
Oct 99	260	2,600,110	323
Nov 99	259	2,478,830	319
Dec 99	258	2,465,332	308
Jan 00	255	1,757,555	222
Feb 00	258	2,081,984	353
Mar 00	257	1,823,000	229
Apr 00	258	2,639,916	341
May 00	258	2,750,804	344
Jun 00	261	3,436,640	439
Jul 00	261	2,406,661	297
Total		30,270,762	
Average			326

**Thim Utility - E&T Division Water Usage During The Test Year**

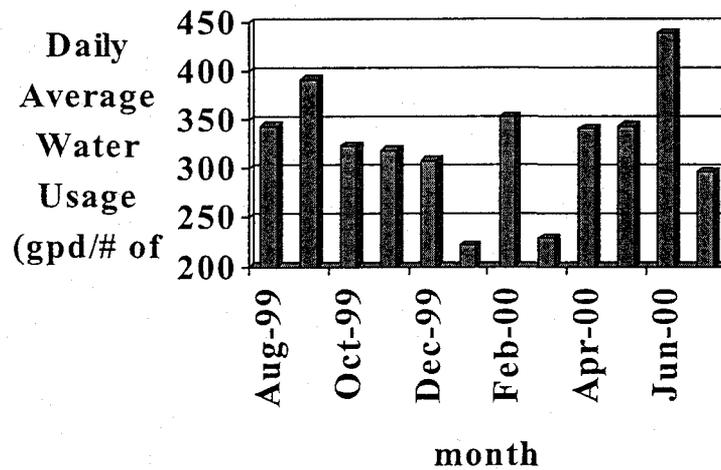


Figure 4. Water Usage

The Company reported that 30,270,762 gallons of water was sold during the test year. The Company also reported 19,886,898 gallons of water was pumped and 10,427,120 gallons of water was purchased during the test year. Non-accountable water, the difference between the water sold and the water produced, should be 10% or less and never more than 15% of the produced water. The Company's unaccounted-for water is less than 1%, which is very good.

**E. GROWTH PROJECTIONS**

Figure 5 details the customer growth using linear regression analysis. The numbers of service connections were obtained from annual reports submitted to the Commission. Based on the service meters, the number increased from 146 at the end of 1990 to 261 by the end of test year, with an approximate increase rate of 13.20 per year. Based on the linear regression analysis, the Company could have approximately 319 customers by the end of 2004. This growth estimate would not include any growth resulting from proposed CC&N extensions. The following table summarizes actual and projected growth in the Company's existing certificate service area.

Table 2. Growth Projection Number

Year	Numbers of Customers	
1990	170	Reported
1991	160	Reported
1992	184	Reported
1993	173	Reported
1994	232	Reported
1995	335	Reported
1996	241	Reported
1997	263	Reported
1998	257	Reported
1999	258	Reported
2000	266	Estimated
2001	279	Estimated
2002	293	Estimated
2003	306	Estimated
2004	319	Estimated

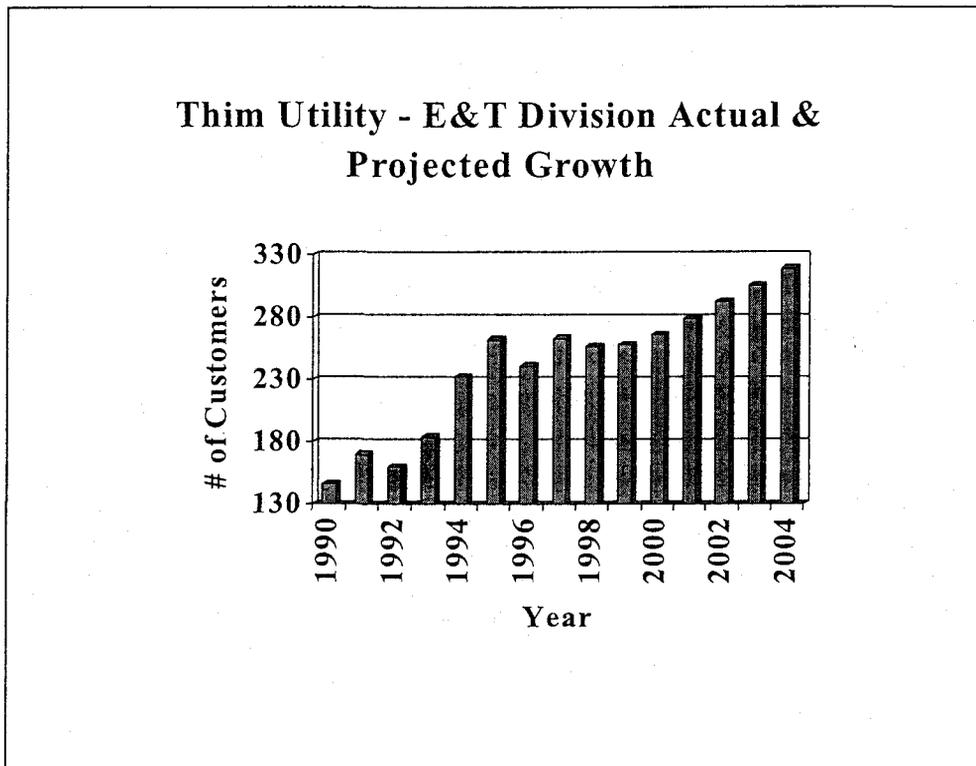


Figure 5. Growth Projection

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

ADEQ performed a plant inspection on June 9, 2000, and found that the systems have major plant deficiencies. In addition, ADEQ has determined that the systems are not in compliance with MCL requirements and the water quality standards of the Safe Drinking Water Act. In an October 19, 2000 memorandum to Engineering Staff (“Staff”) with this Commission, ADEQ states that:

- a. ADEQ has not approved the Company’s blending plan.
- b. ADEQ cited Thim a Notice of Violation (“NOV”) on November 23, 1999 due to its nitrate MCL violations.
- c. Although Thim obtained three quarters of data below the MCL through the “alleged” use of a blending plan, ADEQ cannot determine that this is valid data due to lack of approved engineering controls.

Therefore, Staff recommends that Thim submit a copy of its Approval to Construct of the

blending plan from ADEQ stating the blending plan is approved by ADEQ before the effective date of the Commission's order in this matter. Staff further recommends that any rate increase may be approved in this case, but it shall not become effective until the Company files with the Director of the Utilities Division written documentation that the water system has no MCL violations and is serving water which meets the water quality standards of the Safe Drinking Water Act.

**G. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR") COMPLIANCE**

Since the Company pumps less than 250 acre-feet per year, it is considered a "small provider" by ADWR and is not subject to the gallons per capita per day limit and conservation rules. The Company is only required to monitor and report water use. After contacting the ADWR Tucson Active Management Area, Staff learned that the Company is in compliance with these monitoring and reporting requirements.

**H. WATER TESTING EXPENSES**

All monitoring expenses are summarized in Table 3, and are based on Staff's best knowledge of lab costs, methodology and the Company's specific sampling procedures.

Using the ADEQ Monitoring Assistance Program ("MAP") method, Staff has estimated the water testing cost to be approximately \$1,859 per year for the next three years. These monitoring requirements can be seen in the following table:

Table 3. Summary of Water Testing Cost (per MAP calculation)

Contaminant	Cost per test	No. of tests per 3 years	Total 3 year cost	Annual expense
Bacteriological - Total Coliform (monthly)	15	72	1,080	360
Gross alpha	50	3	150	50
Nitrate (annual)	15	36	540	180
Nitrite (1/9 years)	15	12	180	60
Asbestos (1/9 years)	170	0.3	51	17
Lead & Copper	20	30	600	200
Sub-total			2,601	867
ADEQ MAP Annual fee				992
Total				1,859

Based on correspondence from the ADEQ Monitoring Assistance Program ("MAP") to Company, Staff believes that ADEQ MAP failed to charge the Company for MAP costs during 1999 and 2000. Staff estimates the Company's MAP fee is approximately \$992. The Company owned two hundred seventy 5/8 x 3/4-inch service meters, six 1-inch meter service meters and one 1 1/2-inch service meter during the test year. The estimated cost is calculated as the sum of 270 x \$3.50, 6 x 1.67 x \$3.50 and 1 x 5.33 x \$3.50. (270 connections @3.50 \$/connection its rate is \$945.00. 6 connections @3.50\$/connections and 1.67 unit weight, its rate is \$35.07. One connection @3.50\$/connection and 5.33 unit weight, its rate is.\$11.66. Therefore, estimated annual cost of water analysis for the next three years is \$992.)

I. OTHER

A. Service line and meter installation charges

The Application did not include a complete listing of all service line and meter installation charges. Staff recommends that the charges as in the table below be adopted:

Table 4. Service Line and Meter Installation Charges

Meter Size	Company Proposed	Staff Proposed
5/8" x 3/4"	\$ 370	\$ 415
3/4 inch	\$ 415	\$ 455
1 inch	\$ 480	\$ 540
1 1/2 inch	\$ 700	\$780
2 inch Turbo		\$1,340
2 inch Compound	\$ 1,720	\$1,970
3 inch Turbo		\$1,895
3 inch Compound	\$2,260	\$2,610
4 inch Turbo		\$2,900
4 inch Compound	\$3,245	\$3,755
6 inch Turbo		\$5,470
6 inch Compound	\$6,350	\$7,070

B. CC&N Extension

Thim is in the process of applying its CC&N's extension. The proposed area is located east and south of its existing CC&N. There is a private water system including a well, storage tank and pressure tank in the proposed area. Thim took a water sample from this well in March 2000, its chemical analyses result indicated that the nitrate level was less than 1 mg/l which is below the MCL standard for nitrate. If Thim purchases this well, Thim might have a cost-effective source for blending water.

C. Pressure Tank

The existing 5,000-gallon pressure tank is undersized. At minimum, Thim needs a 5,800-gallon pressure tank to serve existing customers. If the Commission approves Thim's CC&N's extension request, an additional 34 customers would be connected to the system immediately. And Thim will then need, at minimum, a 6,300-gallon pressure tank. Staff recommends that Thim install additional pressure tank capacity of at least 2,000 gallons by December 31, 2001. Staff estimates the cost of a 2,000-gallon pressure tank and installation to be approximately \$2,000.