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BEFORE THE ARIZONA CORPORATION C

COMMISSIONERS
MARC SPITZER - Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
MIKE GLEASON
KRISTIN K. MAYES

IN THE MATTER OF THE APPLICATION OF
MOUNT TIPTON WATER COMPANY, INC. FOR
A RATE INCREASE.

DOCKET NO. W-02105A-03-0303

NOTICE OF FILING

Staff of the Arizona Corporation Commission hereby files the Direct Testimony of Charles R. Myhlhousen of the Utilities Division and Dorothy M. Hains of the Engineering Division in the above-referenced matter.

RESPECTFULLY SUBMITTED this 16th day of April 2004.

Arizona Corporation Commission
DOCKETED
APR 16 2004

DOCKETED BY *Nae*

David Ronald

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Copies of the foregoing were mailed /or hand-delivered on this 16th day of April 2004 to:

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Viola R. Kizis

Viola R. Kizis
Assistant to David M. Ronald

**DIRECT
TESTIMONY**

OF

CHARLES R. MYHLHOUSEN

DOROTHY M. HAINS

DOCKET NO. W-02105A-03-0303

**IN THE MATTER OF THE APPLICATION OF
MT. TIPTON WATER COMPANY, INC.
AN ARIZONA CORPORATION, FOR A RATE
INCREASE**

APRIL 16, 2004

MYHLHOUSEN

BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF THE APPLICATION OF)
MOUNT TIPTON WATER COMPANY FOR)
A PERMANENT RATE INCREASE.)
_____)

DOCKET NO. W-02105A-03-0303

DIRECT
TESTIMONY
OF
CHARLES R. MYHLHOUSEN
PUBLIC UTILITIES ANALYST II
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

APRIL 16, 2004

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**EXECUTIVE SUMMARY
MOUNT TIPTON WATER COMPANY
DOCKET NO. W-02105A-03-0303**

Mount Tipton Water Company ("Company") is a non-profit cooperative that is engaged in the business of providing public utility water service exclusively to Arizona customers in Mohave County. The Company operates a water system in a certificated area centered in Dolan Springs, Arizona and provided service to approximately 740 customers during the test year ended December 31, 2002.

The Company's rate application requested an increase in revenues of \$142,629 or a 48.32 percent increase over test year revenues of \$295,198. Staff recommends an increase in revenues of \$54,244 or 19.29 percent over adjusted test year revenues of \$281,200. Staff's recommended operating revenue requirement is \$335,444 and is \$102,383 less than the Company's \$437,827.

Staff recommends an original cost rate base ("OCRB") of \$652,856, which is \$553,861 less than the Company's proposed rate base of \$1,206,717. Staff's recommended rate base adjustments encompass the following major issues:

1. A decrease in plant in service of \$450,849
2. An increase in accumulated depreciation of \$327,615.
3. An increase in accumulated amortization of contributions-in-aid-of-construction ("CIAC") of \$192,278.
4. A decrease in advances-in-aid-of-construction ("AIAC") of \$8,740.
5. A decrease in customer deposits of \$33,214.
6. A decrease in cash working capital of \$9,629.

Staff recommends test year operating expenses of \$247,962, which is \$139,787 less than the Company's proposed \$387,748. Staff's recommended rates result in a 13.40 percent rate of return on an OCRB of \$652,856, which would increase the typical residential bill at a median usage of 3,342 gallons from \$23.50 to \$27.35 for an increase of \$3.85 or 16.4 percent. The Company's proposed increase would increase the typical residential bill at a median usage of 3,342 gallons from \$23.50 to \$35.29 for an increase of \$11.79 or 50.2 percent.

SERVICE LIST

(THE SERVICE LIST FOR TESTIMONY IS GENERALLY HANDLED BY THE LEGAL DIVISION.)

1 **INTRODUCTION**

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

3 A. My name is Charles R. Myhlhousen. I am a Public Utilities Analyst II employed by the
4 Arizona Corporation Commission (“ACC” or “Commission”) in the Utilities Division
5 (“Staff”). My business address is 1200 West Washington Street, Phoenix, Arizona
6 85007.

7
8 **Q. Briefly describe your responsibilities as a Public Utilities Analyst II.**

9 A. In my capacity as a Public Utilities Analyst II, I conduct audits and prepare reports,
10 recommendations, and provide expert testimony on behalf of Commission Staff in
11 evidentiary hearings. Within this framework, the Public Utility Analyst II position is
12 responsible for conducting case preparation/analysis in rate proceedings, finance
13 applications and Certificate of Convenience and Necessity (“CC&N”) proceedings,
14 among others.

15
16 **Q. Please describe your educational background and professional experience.**

17 A. I graduated from Bellevue University. I have a BA in accounting. I worked for the
18 Internal Revenue Service as a Revenue Agent for over twenty years conducting audits. In
19 October 2000, I was employed by the Commission as an Auditor II in the Accounting &
20 Rates Section’s Financial Analysis Unit. Since that time, I have attended various
21 seminars and classes on general regulatory and business issues. In 2001 my job title was
22 changed to Public Utilities Analyst II.

23

1 **Q. What is the scope of your testimony in this case?**

2 A. I am presenting Staff's analysis and recommendations concerning the original cost rate
3 base ("OCRB"), revenue requirement and the rate design regarding the Mount Tipton
4 Water Company ("Mt. Tipton" or "Company") water rate increase application docketed
5 on May 13, 2003.

6

7 **Q. When was the application for rate increase filed by the Company?**

8 A. The original application was filed on May 13, 2003, but Staff found the application
9 insufficient. The Company amended it on August 11, 2003. Staff found the application
10 sufficient on September 8, 2003.

11

12 **Q. What is the basis of Staff's recommendations?**

13 A. Staff performed a regulatory audit of the Company's books and records to determine
14 whether sufficient evidence exists to support the Company's request for an increase in its
15 rates and charges. The regulatory audit consisted of examining Company books and
16 records, reviewing accounting ledgers and reports, tracing recorded amounts to source
17 documents, and verifying that the accounting principles applied are in accordance with
18 the National Association of Regulatory Utility Commissioners ("NARUC") Uniform
19 System of Accounts ("USoA").

20

21 In the course of completing these duties, Staff conducted an on-site audit of the
22 Company's books and records, held numerous discussions with Company representatives
23 and issued several written requests for data.

24

25 **Q. What test year was used by the Company in the filing?**

26 A. The Company used the twelve months ending December 31, 2002.

1 **Q. Did Staff accept the test year proposed by the Company?**

2 A. Yes. The December 31, 2002, test year selected was the most recent fiscal year available
3 and should present a fairly accurate representation of the Company's financial operations
4 for the determination of appropriate rates and charges.

5

6 **BACKGROUND**

7 **Q. Please briefly describe the Company background.**

8 A. The Company is a non-profit cooperative engaged in the business of providing public
9 utility water exclusively to Arizona customers. The Company operates a water system in
10 Dolan Springs, Arizona that provided service to an average of 740 customers during the
11 test year. In December 2001, the Company purchased Dolan Springs Water Company
12 ("Dolan") to have an adequate supply of water. The Company presently serves
13 customers of both water companies and operates the water system under Mount Tipton
14 Water Company.

15

16 **SUMMARY OF RECOMMENDATIONS**

17 **Q. Please summarize the Company's proposed revenues and Staff's recommended**
18 **revenues?**

19 A. The Company is proposing operating revenues of \$437,827. The Company revenue
20 results in an increase of \$142,629 or a 48.32 percent increase over test year revenues of
21 \$295,198, as shown on Schedule CRM-1. This would increase the typical monthly
22 residential bill at a median usage of 3,342 gallons from \$23.50 to \$35.29 for an increase
23 of \$11.79 or 50.2 percent.

24

1 **Q. Please summarize Staff's recommendation for the Company's water revenues.**

2 A. Staff is recommending operating revenues of \$ 335,444 which represents an increase of
3 \$54,244 or a 19.29 percent over adjusted test year revenue of \$281,200. This would
4 increase the typical residential bill from \$23.50 to \$27.35 for an increase of \$3.85 or 16.4
5 percent. Staff's recommendation results in a rate of return of 13.40 percent on an OCRB
6 of \$652,856 versus the Company's proposed 4.15 percent on an OCRB of \$1,206,717.

7
8 **Q. Does Staff disagree with the Company's pro forma adjustments?**

9 A. Yes, the Company made a pro forma adjustment to revenue of \$213,503. This item will
10 be discussed in more detail under the operating revenues section, which appears later in
11 this testimony. Staff also disagrees with the Company's pro forma expense adjustments
12 and will be discussed in more detail under the operating expenses section, which appears
13 later in this testimony.

14

15 **COMPLIANCE**

16 **Q. Has Staff determined that the Company is in compliance with Mohave County**
17 **Assessor, Arizona Department of Revenue ("ADOR"), Arizona Department of**
18 **Environmental Quality ("ADEQ") and Arizona Corporation Commission**
19 **("ACC")?**

20 A. The Company is not in compliance with the Mohave County Assessor. The Company
21 has an agreement to make payments on past due taxes until they are current and is
22 making the payments. The Company is not in compliance with ADOR and is currently
23 making payments to become current and be in compliance. The Company is in
24 compliance with ADEQ. The Company is in good standing with ACC.

25

1 **ORIGINAL COST RATE BASE**

2 **Q. Has Staff prepared a schedule detailing the Company's proposed OCRB and Staff's**
3 **recommended OCRB?**

4 A. Yes. Detail on the Company's proposed OCRB and Staff's recommended OCRB is
5 located on Schedule CRM-3.

6

7 **Q. Did the Company prepare a schedule detailing the elements of a reconstruction cost**
8 **new less depreciation ("RCND") rate base?**

9 A. No. The Company did not file an RCND schedule. Therefore, as by rule, Staff utilized
10 OCRB as fair value rate base ("FVRB").

11

12 **Q. Is Staff recommending a different OCRB than that proposed by the Company?**

13 A. Yes. The Company proposed an OCRB of \$1,206,717. Staff is recommending an OCRB
14 of \$652,856, or a difference of \$553,861.

15

16 **Q. Please identify Staff's individual adjustments to rate base.**

17 A. a. Plant in service was decreased by \$450,849 to reflect the additions and
18 retirements not booked by the Company.

19 b. Accumulated depreciation was increased by \$327,615. The Company was using
20 the incorrect depreciation rate.

21 c. Contributions-in-aid-of-construction ("CIAC") were amortized in the amount of
22 \$192,278. The Company did not amortize this account in prior years.

23 d. Advances-in-aid-of-construction ("AIAC") were decreased in the amount of
24 \$8,740 to reflect the actual amount of AIAC.

25 e. Customer deposits were decreased in the amount of \$33,214 to reflect the actual
26 amount of deposits.

1 f. Cash working capital was decreased in the amount of \$9,629 to reflect Staff's
2 recommended reduction in expense.
3

4 **PLANT IN SERVICE**

5 **Q. Please summarize Staff's plant in service as shown on Schedule CRM-3**

6 **A.** Staff's recommended plant in service results in a decrease of \$450,849 from the
7 Company's figure of \$2,129,117, to Staff's recommended figure of \$1,678,268. The
8 difference is the result of the comparison of the plant in service as shown in the
9 Company's ledger and Staff's analysis of the information provided in the Utilities Annual
10 Reports as explained below.
11

12 **Q. Please explain how Staff arrived at its recommended plant in service balance.**

13 **A.** In December 2001, The Company purchased the assets of Dolan Springs. Consequently,
14 Staff's proposed plant in service is the combined original cost values of Dolan Springs
15 and Mount Tipton.
16

17 Staff's recommended plant values were derived by consolidating the balance of the
18 individual plant categories of Dolan Springs and Mt. Tipton as shown in the 2001
19 Utilities Annual Report. Staff further increased and decreased plant in service by the
20 additions and retirements as shown in the Mt. Tipton's 2002 Utilities Annual Report.
21 Staff further reclassified \$657,936 form Other Plant Structures and Improvements which
22 represent the total plant purchased from Dolan Springs to the appropriate plant categories.
23 The totality of this adjustment resulted in a reduction in plant in service of \$450,849.
24

25 Since all Staff's adjustments to plant were calculated following the same methodology
26 explained above, there is no need to explain each individual plant category adjustment.

1 **ACCUMULATED DEPRECIATION**

2 Staff's adjustment number 20 as shown on Schedule CRM-3A increased accumulated
3 depreciation by \$327,615 from \$539,418 to \$867,033. The Company used an incorrect
4 depreciation rate to compute depreciation expense.

5
6 **CONTRIBUTIONS IN AID OF CONSTRUCTION**

7 Staff's adjustment number 21 increased the amortization of contribution-in-aid-of
8 construction by \$192,278 from zero to \$192,278. The Company did not amortize CIAC
9 in test year or prior years.

10
11 **ADVANCES IN AID OF CONSTRUCTION**

12 Staff's adjustment number 22 decreased advances-in-aid-of-construction by \$8,740 from
13 \$20,501 to \$11,761, to adjust the general ledger account to reflect the actual amount of
14 AIAC.

15
16 Staff's adjustment number 23 decreased customer deposits by \$33,214 from \$61,036 to
17 \$27,822, to adjust the general ledger amount to reflect the actual amount of customer
18 deposits.

19
20 **CASH WORKING CAPITAL ALLOWANCE**

21 **Q. Please explain Staff's adjustment to allowance for working capital.**

22 **A. Staff decreased allowance for working capital by \$9,629 based on its adjustments to**
23 operating expenses.

24

1 **OPERATING REVENUE**

2 **Q. Did Staff prepare a schedule showing the Company's test year revenue and Staff's**
3 **recommended test year revenues?**

4 A. Yes. This information is found on Schedule CRM-4 which reflects both the Company as
5 filed and Staff's recommended revenues and expenses at present and proposed rates.

6
7 **Q. Is Staff recommending any changes to the Company's test year operating revenue?**

8 A. Yes. Staff's adjustment number 1 increased metered water sales by \$7,002 to reflect the
9 revenue produced by the Company's bill counts.

10
11 Staff's adjustment number 2 decreased Regulators and Other Income revenue account by
12 \$21,000 to reflect the removal of hook-up fees included in this account.

13
14 The Company requested a Capital Maintenance Charge and Development Fees in its
15 proposed income statement. Staff did not consider the Company's proposed capital
16 maintenance charge of \$11,337 and development fees of \$15,350 from its Schedule
17 CRM-4 due to the lack of explanation and justification for the requested fees.

18
19 **Q. Did Staff prepare a schedule showing the Company's proposed operating expenses**
20 **and Staff's recommended operating expenses?**

21 A. Yes. This information is found on Schedule CRM-4.

22
23 **Q. Is Staff recommending any changes to the Company's test year and proposed**
24 **operating expenses?**

25 A. Yes. Staff is recommending an operating expense level in the test year of \$247,962 or
26 \$139,787 less than the Company's proposed \$387,748.

1 **Q. Please explain Staff's adjustment number 3 to repairs and maintenance.**

2 A. Staff's adjustment number 3 decreased repairs and maintenance by \$45,137 to reflect the
3 average repair expense for the six prior years and to remove capital items and reclassify
4 them to plant in service.

5
6 **Q. Please explain Staff's adjustment number 4 to wages.**

7 A. Staff's adjustment number 4 increased wages by \$9,405 that represents Staff's net pro
8 forma adjustment for new employees and the removal of employees no longer employed
9 by the Company.

10

11 **Q. Please explain Staff's adjustment number 5 to water testing/analysis.**

12 A. Staff's adjustment number 5 increased water testing/analysis by \$2,598 to reflect the
13 amount of testing expense computed by Staff's engineer.

14

15 **Q. Please explain Staff's adjustment number 6 to engineering/survey.**

16 A. Staff's adjustment number 6 decreased engineering/survey by \$9,037 to reclassify to
17 plant in service.

18

19 **Q. Please explain Staff's adjustment number 7 to advertising expense.**

20 A. Staff's adjustment number 7 removed advertising expense of \$2,120. The amount was
21 paid to form a water district and is a non-recurring expense.

22

23 **Q. Please explain Staff's adjustment number 8 to loan origination fees.**

24 A. Staff's adjustment number 8 removed loan origination fees of \$11,642. This amount
25 represents loan payments to the Water Infrastructure Finance Authority ("WIFA").

26

1 **Q. Please explain Staff's adjustment number 9 to bank service charges.**

2 A. Staff's adjustment number 9 removed bank service charges of \$18,387. This amount
3 represents payments on the WIFA loan.

4
5 **Q. Please explain Staff's adjustment number 10 to system inspection.**

6 A. Staff's adjustment number 10 decreased system inspection by \$700. This testing expense
7 is now no longer needed. The Company has a full time operator who does the testing.

8
9 **Q. Please explain Staff's adjustment number 11 to contributions.**

10 A. Staff's adjustment number 11 removed charitable contributions of \$80. This is a Co-op.
11

12 **Q. Please explain Staff's adjustment number 12 to maps.**

13 A. Staff's adjustment number 12 removed maps of \$184. This is a one time expense for the
14 Company.
15

16 **Q. Please explain Staff's adjustment number 13 to outside services.**

17 A. Staff's adjustment number 13 removed outside services of \$595. This amount was taken
18 into consideration when arriving at the amount for water testing/analysis and will no
19 longer be a separate expense.
20

21 **Q. Please explain Staff's adjustment number 14 to rate application expense.**

22 A. Staff's adjustment number 14 decreased rate application expense by \$5,333. This is the
23 result of Staff amortizing this expense over three years.
24

1 **Q. Please explain Staff's adjustment number 15 to land lease.**

2 A. Staff's adjustment number 15 decreased land lease by \$3,097. To reclassify to well
3 maintenance materials account.

4
5 **Q. Please explain Staff's adjustment number 16 to less-allocated to maintenance.**

6 A. Staff's adjustment number 16 removed less-allocated to maintenance by \$3,097. To
7 eliminate this account since it is reflected in well maintenance materials account.

8
9 **Q. Please explain Staff's adjustment number 17 to supplies-office.**

10 A. Staff's adjustment number 17 decreased supplies-office by \$2,204 for items that are a one
11 time expense and will not be reoccurring.

12
13 **Q. Please explain Staff's adjustment number 18 to payroll taxes.**

14 A. Staff's adjustment number 18 increased payroll taxes by \$58, consistent with Staff's
15 adjustment to wages.

16
17 **Q. Please explain Staff's adjustment number 19 to unemployment taxes.**

18 A. Staff's adjustment number 19 decreased unemployment taxes by \$1,030, consistent with
19 Staff's adjustment to wages.

20
21 **Q. Please explain Staff's adjustment number 20 to taxes-real estate.**

22 A. Staff's adjustment number 20 decreased taxes-real estate by \$1,562. Staff used the
23 Arizona Department of Revenue ("ADOR") new modified methodology for determining
24 full cash value for property tax purposes. This formula uses an average of three years of
25 reported gross revenue multiplied by a factor of two as a basis for assessed value. The
26 process results in a full cash value amount to which an assessment ratio and finally the

1 tax rate are applied. A three-year average of gross revenue was calculated resulting in a
2 property tax expense level of \$18,093.

3

4 **Q. Please explain Staff's adjustment number 21 to consulting.**

5 A. Staff's adjustment number 21 decreased consulting by \$32,739. The Company will not
6 incur this one-time expense in going-forward years.

7

8 **Q. Please explain Staff's adjustment number 22 to management consultant.**

9 A. Staff's adjustment number 22 decreased management consultant by \$6,200. The
10 company will not incur this one-time expense in going-forward years.

11

12 **Q. Please explain Staff's adjustment number 23 to depreciation.**

13 A. Staff's adjustment number 23 decreased depreciation by \$14,862. Staff calculated
14 depreciation expense on a going-forward basis using the recommended depreciation rates
15 shown in the Engineering Report.

16

17 **REVENUE REQUIREMENT**

18 **Q. What is the Company's proposed revenue requirement and Staff's recommended**
19 **revenue requirement?**

20 A. Staff's recommended rates result in operating revenue of \$335,444 and operating income
21 of \$87,482 for a 13.40 rate of return on an OCRB of \$652,856. The Company's proposed
22 rates produce operating revenues of \$437,827 and operating income of \$50,079 for a 4.15
23 percent rate of return on an OCRB of \$1,206,717.

24

1 **Q. Did Staff prepare a schedule summarizing its recommended increase in gross**
2 **revenue requirement?**

3 A. Yes. Please refer to Schedule CRM-4, columns d and e.
4

5 **RATE DESIGN**

6 **Q Has Staff prepared a schedule showing the Company's proposed rates and charges**
7 **and Staff's proposed rates and charges?**

8 A. Yes. Please refer to Schedule CRM-5
9

10 **Q. Please explain Staff's proposed rate design.**

11 A. The present rate design consists of a base rate and a commodity charge in three tiers. The
12 Company's proposed rate consists of six tiers. Staff's recommended rate structure
13 consists of three tiers and is compatible with water conservation efforts.
14

15 **Q. Has Staff recommended a change in the Company's proposed bulk commodity**
16 **charges?**

17 A. Yes. Staff's bulk rate commodity charge was determined by considering the total gallons
18 sold and the percentage of bulk sales to metered sales. The Company did not justify its
19 proposed commodity charge.
20

21 **Q. Has Staff recommended a change in the Company's proposed service charges?**

22 A. Yes. The Company did not justify the proposed increases or additional service charges.
23

1 **Q. Has Staff prepared a schedule representative of the typical bill under the**
2 **Company's proposal and Staff's recommended rates?**

3 A. Yes. Please refer to Schedule CRM-6A. The typical residential bill as shown in
4 Schedule CRM-6A reflects that Staff's recommended rates result in an increase at the
5 median usage of \$3.85 versus the Company's increase of \$11.79.

6

7 **STAFF RECOMMENDATIONS**

8 **Q. Please summarize Staff's recommendations in this proceeding.**

9 A. Staff recommends that the Commission approve Staff's rates and charges as shown on
10 Schedule CRM-5.

11

12 Staff further recommends that the Company be allowed to collect hook-up-fees per
13 Schedule CRM-5 page 2. Additionally, the Company should have a separate, interest
14 earning bank account for the hook-up fees.

15

16 Staff further recommends that the Company submit quarterly reports, due by the 15th of
17 the month following the end of the calendar quarter, to Docket Control that contain the
18 following facts:

19

- 20 1. The name of each person/entity charged a hook-up fee and the amount charged.
- 21 2. The balance of the hook-up fee account and interest earned on the account.
- 22 3. A detailed list of plant items purchased from the hook-up fee account, along with
23 the purchase amounts.
- 24 4. If there are no hook-ups during a quarter then a quarterly report will be submitted
25 reflecting this fact.

1 Staff further recommends that the Company be ordered to use the depreciation rates as
2 shown in Exhibit 6 of the Engineering Report.

3
4 Staff further recommends a provision be included in the Company's tariff to allow for the
5 flow-through of all appropriate state and local taxes as provided in A.A.C. Rule 14-2-
6 409(D)(5).

7
8 Staff further recommends that the Company be ordered to notify its customers of the rates
9 and charges approved by the Commission and the effective date by means of an insert in
10 its next regular monthly billing following a Decision in this matter. The Company shall
11 also docket a copy of this notice within 60 days of the effective date of a Decision in this
12 case.

13
14 Staff further recommends that the Company reduce its water loss to less than 10 percent
15 within eighteen months after the effective date of the Decision in this matter. Staff
16 further recommends that the Company file quarterly reports with the Director of the
17 Utilities Division, indicating the quantity of water pumped and sold each month during
18 the quarter and the efforts made to reduce water loss, such as number of leaks repaired,
19 meters replaced, pipeline flushing, etc. The quarterly report should be based on the
20 calendar year, with the first report being filed within 120 days of the effective date of the
21 Decision in this matter. The reporting may end, if approved by Staff, if the Company
22 shows that average water loss for two consecutive quarters is below 10 percent.

23
24 If after eighteen months of the effective date of the Decision in this matter the Company
25 has failed to reduce its non-account water below 15 percent, Staff further recommends
26 that any new Main Extension Agreements submitted by the Company should be denied

1 until the Company shows that average water loss for two consecutive quarters is below
2 15 percent.

3
4 If the Company finds that water loss can only be reduced to less than 15 percent, but not
5 less than 10 percent within eighteen months after the effective date of the Decision in this
6 matter, the Company shall submit, by December 31, 2005, or prior to its next rate case
7 whichever comes first, a detailed cost analysis and explanation demonstrating why water
8 loss reduction to less than 10 percent is not cost effective.

9
10 Staff further recommends that the Company be ordered to bring its books and records
11 into compliance with the NARUC systems of accounts to include listing plant in service
12 by individual account number and reflecting the correct plant balances, accumulated
13 depreciation, and other general ledger account amounts to comply with the approved
14 amounts in this Decision. In order to demonstrate the above, the Company should docket
15 copies of its general ledger, to include all corrections, within 90 days of the effective date
16 of the Decision in this mater.

17
18 **Q. Does this conclude your direct testimony?**

19 **A. Yes, it does.**

20
21

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CRM-2	Financial Analysis (DSC, Tier, and Cash Coverage Ratio)
CRM-3	Rate Base - Original Cost
CRM-3A	Summary of Rate Base Adjustments
CRM-3A-1	Rate Base Adjustments #1 Organization
CRM-3A-2	Rate Base Adjustments #2 Franchises
CRM-3A-3	Rate Base Adjustments #3 Land and Land Rights
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CRM-3A-8	Rate Base Adjustments #8 Distribution /Reservoirs and Standpipe
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CRM-3A-15	Rate Base Adjustments #15 Transportation Equipment
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CRM-3A-21	Rate Base Adjustments #21 CIAC and Accumulated Amortization of CIAC
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CRM-3A-24	Rate Base Adjustments #24 Cash Working Capital Allowancxe

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MOUNT TIPTON WATER COMPANY
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Schedule CRM-1

REVENUE REQUIREMENT

<u>LINE NO.</u>	<u>DESCRIPTION</u>	(A) COMPANY ORIGINAL COST	(B) STAFF ORIGINAL COST
1	Adjusted Rate Base	\$ 1,206,717	\$ 652,856
2	Adjusted Operating Income (Loss)	\$ (92,550)	\$ 33,238
3	Current Rate of Return (L2 / L1)	-7.67%	5.09%
4	Required Rate of Return	4.15%	13.40%
5	Required Operating Income (L4 * L1)	\$ 50,079	\$ 87,483
6	Operating Income Deficiency (L5 - L2)	\$ 142,629	\$ 54,244
7	Gross Revenue Conversion Factor	1.0000	1.0000
8	Required Revenue Increase (L7 * L6)	\$ 142,629	\$ 54,244
9	Adjusted Test Year Revenue	\$ 295,198	\$ 281,200
10	Proposed Annual Revenue (L8 + L9)	\$ 437,827	\$ 335,444
11	Require Increase in Revenue (%)	48.32%	19.29%
12	Rate of Return on Common Equity (%)	NMF	NMF

FINANCIAL ANALYSIS

December 31, 2002 Income Statement

	[A]
	<u>Staff</u>
1 Operating Income	\$ 87,483
2 Depreciation & Amort.	53,094
3 Income Tax Expense	0
4	
5 Interest Expense	74,164
6 Repayment of Principal	43,456
7	
8	
9 TIER¹	
10 [1+3] ÷ [5]	1.18
11 DSC	
12 [1+2+3] ÷ [5+6]	1.20
13 Cash Coverage Ratio	
14 [1+2+3] ÷ [5]	1.90
15	
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RATE BASE - ORIGINAL COST

LINE NO.	(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	(C) STAFF AS ADJUSTED
1	\$ 2,129,117	\$ (450,849)	\$ 1,678,268
2	539,418	327,615	867,033
3	\$ 1,589,699	\$ (778,464)	\$ 811,235
<u>LESS:</u>			
4	\$ 347,002	\$ -	\$ 347,002
5	-	192,278	192,278
6	347,002	(192,278)	154,724
7	20,501	(8,740)	11,761
8	61,036	(33,214)	27,822
9	-	-	-
10	-	-	-
<u>ADD:</u>			
11	26,418	(9,629)	16,789
12	4,139	-	4,139
13	15,000	-	15,000
14	-	-	-
15	-	-	-
16	-	-	-
17	\$ 1,206,717	\$ (553,861)	\$ 652,856

PLANT ADJUSTMENT

	Company as Filed	Adjustment	Staff Adjustment
301 Organization	\$ -	\$ 17,450	\$17,450
302 Franchises	313	187	500
303 Land and Land Rights	3,600	6,242	9,842
304 Structures and Improvements	44,507	18,578	63,085
307 Wells and Springs	385,697	43,351	429,048
311 Electric Pumping Equipment	104,325	(85,262)	19,063
320 Water Treatment Equipment	-	53,075	53,075
330 Distribution and Reservoirs & Standpipe	180,926	24,565	205,491
331 Transmission & Distribution Mains	513,191	165,220	678,411
333 Services	96,205	(29,012)	67,193
334 Meters	79,613	(9,906)	69,707
335 Hydrants	1,230	(1,230)	0
339 Other Plant Structures/Improvements	658,934	(657,936)	998
340 Office Furniture and Fixtures	21,889	(5,282)	16,607
341 Transportation Equipment	24,540	4,131	28,671
343 Tools & Work Equipment	6,274	3,014	9,288
344 Laboratory Equipment	-	-	0
345 Power Operated Equipment	-	167	167
346 Communication Equipment	-	-	0
347 Miscellaneous Equipment	-	8,464	8,464
348 Other Tangible Plant	7,873	(6,665)	1,208
	<u>\$ 2,129,117</u>	<u>\$ (450,849)</u>	<u>\$ 1,678,268</u>

Summary of Rate Base Adjustments

LINE NO.	DESCRIPTION	COMPANY AS FILED	(A) ADJ #1	(B) ADJ #2	(C) ADJ #3	(D) ADJ #4	(E) ADJ #5	(F) ADJ #6	(G) ADJ #7	(H) ADJ #8	(I) ADJ #9	(J) ADJ #10	(K) ADJ #11	(L) ADJ #12	(M) ADJ #13	(N) ADJ #14	(O) ADJ #15	(P) ADJ #16	(Q) ADJ #17	(R) ADJ #18	(S) ADJ #19	(T) ADJ #20	(U) ADJ #21	(V) ADJ #22	(W) ADJ #23	(X) ADJ #24	STAFF ADJUSTED	
1	PLANT IN SERVICE:		\$ 17,450	\$ 187	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,450
2	Organization	313																										\$ 500
3	Franchise Rights	3,600			6,242																							\$ 9,842
4	Structures & Improvements	44,507				18,578																						\$ 63,085
5	Wells and Springs	395,697				43,351																						\$ 439,048
6	Electric Pumping Equipment	104,325					65,262																					\$ 169,587
7	Water Treatment Equipment	160,926						53,075																				\$ 213,999
8	Distribution Reservoirs & Standpipes	513,191							24,985																			\$ 538,176
9	Transmission & Distribution Means	76,195																										\$ 76,195
10	Services	76,195																										\$ 76,195
11	Hydro	1,230																										\$ 1,230
12	Hydro	1,230																										\$ 1,230
13	Other Plant Structures/Improvements	659,934																										\$ 659,934
14	Office Furniture & Fixtures	21,869																										\$ 21,869
15	Transportation Equipment	24,540																										\$ 24,540
16	Tools & Work Equipment	6,274																										\$ 6,274
17	Laboratory Equipment																											\$ -
18	Power Operated Equipment																											\$ -
19	Commissioning Equipment																											\$ -
20	Other Intangible Plant	7,873																										\$ 7,873
21	Other Intangible Plant																											\$ -
22	Total Plant in Service	\$2,120,117	\$ 17,450	\$ 187	\$ 6,242	\$ 18,578	\$ 43,351	\$ (65,262)	\$ 53,075	\$ 24,985	\$ 165,220	\$ (28,012)	\$ (9,906)	\$ (1,230)	\$ (657,639)	\$ (5,282)	\$ 4,131	\$ 3,014	\$ -	\$ 167	\$ 8,464	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,464
23	Less: Accumulated Depreciation	539,418																										\$ 16,807
24	Net Plant in Service (L23 - L 24)	\$ 1,580,699	\$ 17,450	\$ 187	\$ 6,242	\$ 18,578	\$ 43,351	\$ (65,262)	\$ 53,075	\$ 24,985	\$ 165,220	\$ (28,012)	\$ (9,906)	\$ (1,230)	\$ (657,639)	\$ (5,282)	\$ 4,131	\$ 3,014	\$ -	\$ 167	\$ 8,464	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,208	
LESS:																												
25	Contributions in Aid of Construction (CIA)	\$ 347,002																										\$ 347,002
26	Less: Accumulated Amortization																											\$ -
27	Net CIA (L25 - L26)	347,002																										\$ 347,002
28	Advances in Aid of Construction (AAC)	61,036																										\$ 61,036
29	Customer Deposits																											\$ -
30	Meter Advances																											\$ -
31	Deferred Income Tax Credits																											\$ -
ADD:																												
32	Cash Working Capital Allowance	26,418																										\$ 26,418
33	Prepayments	4,138																										\$ 4,138
34	Supplies Inventory	15,000																										\$ 15,000
35	Capital Expenditures																											\$ -
36	Deferred Debits																											\$ -
37	Other Additions																											\$ -
38	Total Rate Base	\$ 1,206,717	\$ 17,450	\$ 187	\$ 6,242	\$ 18,578	\$ 43,351	\$ (65,262)	\$ 53,075	\$ 24,985	\$ 165,220	\$ (28,012)	\$ (9,906)	\$ (1,230)	\$ (657,639)	\$ (5,282)	\$ 4,131	\$ 3,014	\$ -	\$ 167	\$ 8,464	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,464

References:

ADJ #	20	Accum Depr	Schedule CRM 4-20
ADJ #	21	CIA Amortiz	Schedule CRM 4-21
ADJ #	22	AAC	Schedule CRM 4-22
ADJ #	23	Cust Deposits	Schedule CRM 4-23
ADJ #	24	Cash Working Capital	Schedule CRM 4-24

References:

ADJ #	11	Meters	Schedule CRM 4-11
ADJ #	12	Hydrants	Schedule CRM 4-12
ADJ #	13	Other Plant Stu	Schedule CRM 4-13
ADJ #	14	Office Furniture	Schedule CRM 4-14
ADJ #	15	Transportation	Schedule CRM 4-15
ADJ #	16	Tools	Schedule CRM 4-16
ADJ #	17	Power Equip	Schedule CRM 4-17
ADJ #	18	Miscell Equip	Schedule CRM 4-18
ADJ #	19	Other Intangible	Schedule CRM 4-19

References:

ADJ #	1	Organization	Schedule CRM 4-1
ADJ #	2	Franchise Rights	Schedule CRM 4-2
ADJ #	3	Structures & Improvements	Schedule CRM 4-3
ADJ #	4	Wells and Springs	Schedule CRM 4-4
ADJ #	5	Electric Pumping	Schedule CRM 4-5
ADJ #	6	Water Treatment	Schedule CRM 4-6
ADJ #	7	Distribution	Schedule CRM 4-7
ADJ #	8	Transmission	Schedule CRM 4-8
ADJ #	9	Services	Schedule CRM 4-9
ADJ #	10	Hydro	Schedule CRM 4-10

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Schedule CRM 3A - 1

PLANT ADJUSTMENT #1, ORGANIZATION

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Organization Costs	\$ -	\$ 17,450	\$ 17,450

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 1
Schedule CRM-4A, Column [B] Line 1
Schedule CRM-4A, Column [C] Line 1

MOUNT TIPTON WATER COMPANY

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Schedule CRM 3A - 2

PLANT ADJUSTMENT #2, FRANCHISES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Franchises	\$ 313	\$ 187	\$ 500

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 2
Schedule CRM-4A, Column [C] Line 2
Schedule CRM-4A, Column [Y] Line 2

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Schedule CRM 3A - 3

PLANT ADJUSTMENT #3, LAND AND LAND RIGHTS

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Land and Land Rights	\$ 3,600	\$ 6,242	\$ 9,842

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 3
Schedule CRM-4A, Column [D] Line 3
Schedule CRM-4A, Column [Y] Line 3

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Schedule CRM 3A - 4

PLANT ADJUSTMENT #4, STRUCTURES AND IMPROVEMENTS

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Structures and Improvements	\$ 44,507	\$ 18,578	\$ 63,085

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 4
Schedule CRM-4A, Column [E] Line 4
Schedule CRM-4A, Column [Y] Line 4

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Schedule CRM 3A - 5

PLANT ADJUSTMENT #5, WELLS AND SPRINGS

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Wells and Springs	\$ 385,697	\$ 43,351	\$ 429,048

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 5
Schedule CRM-4A, Column [F] Line 5
Schedule CRM-4A, Column [Y] Line 5

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Schedule CRM 3A - 6

PLANT ADJUSTMENT #6, ELECTRIC PUMPING EQUIPMENT

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Electric Pumping Equipment	\$ 104,325	\$ (85,262)	\$ 19,063

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 6
Schedule CRM-4A, Column [G] Line 6
Schedule CRM-4A, Column [Y] Line 6

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Schedule CRM 3A - 7

PLANT ADJUSTMENT #7, WATER TREATMENT EQUIPMENT

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Water Treatment Equipment	\$ -	\$ 53,075	\$ 53,075

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 7
Schedule CRM-4A, Column [H] Line 7
Schedule CRM-4A, Column [Y] Line 7

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Schedule CRM 3A - 8

PLANT ADJUSTMENT #8, DISTRIBUTION/RESERVOIRS AND STANDPIPE

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Distribution/Reservoirs and Standpipe	\$ 180,926	\$ 24,565	\$ 205,491

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 8
Schedule CRM-4A, Column [I] Line 8
Schedule CRM-4A, Column [Y] Line 8

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Schedule CRM 3A - 9

PLANT ADJUSTMENT #9, TRANSMISSION AND DISTRIBUTION MAINS

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Transmission and Distribution Mains	\$ 513,191	\$ 165,220	\$ 678,411

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 9
Schedule CRM-4A, Column [J] Line 9
Schedule CRM-4A, Column [Y] Line 9

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Schedule CRM 3A - 10

PLANT ADJUSTMENT #10, SERVICES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Services	\$ 96,205	\$ (29,012)	\$ 67,193

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 10
Schedule CRM-4A, Column [K] Line 10
Schedule CRM-4A, Column [Y] Line 10

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Schedule CRM 3A - 11

PLANT ADJUSTMENT #11, METERS

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Meters	\$ 79,613	\$ (9,906)	\$ 69,707

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 11
Schedule CRM-4A, Column [L] Line 11
Schedule CRM-4A, Column [Y] Line 11

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Schedule CRM 3A - 12

PLANT ADJUSTMENT #12, HYDRANTS

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Hydrants	\$ 1,230	\$ (1,230)	\$ -

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 12
Schedule CRM-4A, Column [M] Line 12
Schedule CRM-4A, Column [Y] Line 12

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Schedule CRM 3A - 13

PLANT ADJUSTMENT #13, OTHER PLANT - STRUCTURE & IMPROVEMENTS

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Other Plant - Structure & Improvements	\$ 658,934	\$ (657,936)	\$ 998

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 13
Schedule CRM-4A, Column [N] Line 13
Schedule CRM-4A, Column [Y] Line 13

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Schedule CRM 3A - 14

PLANT ADJUSTMENT #14, OFFICE FURNITURE AND FIXTURES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Office Furniture and Fixtures	\$ 21,889	\$ (5,282)	\$ 16,607

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 14
Schedule CRM-4A, Column [O] Line 14
Schedule CRM-4A, Column [Y] Line 14

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Schedule CRM 3A - 15

PLANT ADJUSTMENT #15, TRANSPORTATION EQUIPMENT

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Transportation Equipment	\$ 24,540	\$ 4,131	\$ 28,671

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 15
Schedule CRM-4A, Column [P] Line 15
Schedule CRM-4A, Column [Y] Line 15

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Schedule CRM 3A - 16

PLANT ADJUSTMENT #16, TOOLS AND WORK EQUIPMENT

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Tools and Work Equipment	\$ 6,274	\$ 3,014	\$ 9,288

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 16
Schedule CRM-4A, Column [Q] Line 16
Schedule CRM-4A, Column [Y] Line 16

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Schedule CRM 3A - 17

PLANT ADJUSTMENT #17, POWER OPERATED EQUIPMENT

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Power Operated Equipment	\$ -	\$ 167	\$ 167

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 18
Schedule CRM-4A, Column [R] Line 18
Schedule CRM-4A, Column [Y] Line 18

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Schedule CRM 3A - 18

PLANT ADJUSTMENT #18, MISCELLANEOUS EQUIPMENT

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Miscellaneous Equipment	\$ -	\$ 8,464	\$ 8,464

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 20
Schedule CRM-4A, Column [S] Line 20
Schedule CRM-4A, Column [Y] Line 20

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Schedule CRM 3A - 19

PLANT ADJUSTMENT #19, OTHER TANGIBLE EQUIPMENT

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Other Tangible Equipment	\$ 7,873	\$ (6,665)	\$ 1,208

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 21
Schedule CRM-4A, Column [T] Line 21
Schedule CRM-4A, Column [Y] Line 21

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Schedule CRM 3A - 20

PLANT ADJUSTMENT #20, ACCUMULATED DEPRECIATION

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Accumulated Depreciation	\$ 539,418	\$ 327,615	\$ 867,033

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 23
Schedule CRM-4A, Column [U] Line 23
Schedule CRM-4A, Column [Y] Line 23

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Schedule CRM 3A - 21

RATE BASE ADJUSTMENT #21 - CIAC and ACCUMULATED AMORTIZATION OF CIAC

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	CIAC and Accumulated Amortization of CIAC	\$ 347,002	\$ (192,278)	\$ 154,724

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 25
Schedule CRM-4A, Column [V] Line 26
Schedule CRM-4A, Column [Y] Line 27

MOUNT TIPTON WATER COMPANY
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Schedule CRM 3A - 22

PLANT ADJUSTMENT #22, ADVANCES-IN-AID-OF-CONSTRUCTION

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Advances-in-Aid-of-Construction	\$ 20,501	\$ (8,740)	\$ 11,761

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 28
Schedule CRM-4A, Column [W] Line 28
Schedule CRM-4A, Column [Y] Line 28

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Schedule CRM 3A - 23

PLANT ADJUSTMENT #23, METER DEPOSITS

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Meter Deposits	\$ 61,036	\$ (33,214)	\$ 27,822

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-4A, Column [A] Line 29
Schedule CRM-4A, Column [X] Line 29
Schedule CRM-4A, Column [Y] Line 29

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Schedule CRM 3A - 24

PLANT ADJUSTMENT #24, CASH WORKING CAPITAL

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Cash Working Capital	\$ 26,418	\$ (9,629)	\$ 16,789

REFERENCES:

Column [A]: Line 1 Schedule CRM-4A, Column [A] Line 32
Column [B]: Line 1 Schedule CRM-4A, Column [X] Line 32
Column [C]: Line 1 Schedule CRM-4A, Column [Y] Line 32

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Schedule CRM 3 - 24A

RATE BASE ADJUSTMENT #24 - CASH WORKING CAPITAL ALLOWANCE

LINE NO.	DESCRIPTION	[A]	[B]	[C]	[D]	[E]
		<u>AMOUNTS</u>				
1	Total Operating Expenses		\$ 247,962			
2	Less:					
3	Income Taxes		-			
4	Property Taxes	18,093				
5	Other Taxes	7,185				
6	Depreciation Before CIAC	53,094				
7	Amortization of CIAC	17,350				
8	Purchased Water	-				
9	Purchased Pumping Power	26,893				
10	Total Deductions		<u>\$ 122,615</u>			
11	Expenses - Other (L1 - L9)			\$ 125,347		
12	One-eighth			0.125		
13	Sub-total (L10 * L11)				<u>\$ 15,668</u>	
14	Purchased Water		\$ -			
15	Purchased Pumping Power		<u>26,893</u>			
16	Sub-total (L14 * L15)			\$ 26,893		
17	One-twenty-fourth			0.04167		
18	Sub-total (L16 * L17)				<u>1,121</u>	
19	Cash Working Capital Allowance - Staff (L13+ L18)					\$ 16,789
20	Cash Working Capital Allowance - Company					<u>26,418</u>
21	Staff's Adjustment					<u><u>(9,629)</u></u>

REFERENCES:

- Lines 1 through 9: Schedule CRM-9
- Line 12 and 17: Testimony, CRM
- Line 20: Company Schedule B-5
- Line 21: Line 19 - Line 20

OPERATING INCOME - TEST YEAR AND STAFF PROPOSED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
REVENUES:						
1	Metered Water Sales	\$ 231,276	\$ 7,002	\$ 238,278	\$ 29,225	\$ 267,503
2	Standpipe	41,098	-	41,098	25,019	66,117
3	Regulators and Other Income	22,824	(21,000)	1,824	-	1,824
4	Other Operating Revenue	-	-	-	-	-
5	Total Operating Revenues	\$ 295,198	\$ (13,998)	\$ 281,200	\$ 54,244	\$ 335,444
EXPENSES:						
6	Utility Expense	\$ 26,893	\$ -	\$ 26,893	\$ -	\$ 26,893
7	Repairs and Maintenance	49,271	(45,137)	4,134	-	4,134
8	Wages	76,963	9,405	86,368	-	86,368
9	Water Testing/analysis	1,490	2,598	4,088	-	4,088
10	Engineering/Survey	9,073	(9,073)	-	-	-
11	Advertising	2,120	(2,120)	-	-	-
12	Loan Origination Fees	11,642	(11,642)	-	-	-
13	Bank Service Charges	18,387	(18,387)	-	-	-
14	Dues and Publications	113	-	113	-	113
15	Fuel and Oil	2,376	-	2,376	-	2,376
16	Insurance-General	12,697	-	12,697	-	12,697
17	Insurance-Vehicle	1,317	-	1,317	-	1,317
18	Workers Compensation	1,000	-	1,000	-	1,000
19	Legal and Accounting	4,975	-	4,975	-	4,975
20	Auto and truck Expense	3,402	-	3,402	-	3,402
21	Equipment Rental	109	-	109	-	109
22	System Inspection	700	(700)	-	-	-
23	Travel	888	-	888	-	888
24	Seminars	51	-	51	-	51
25	Contributions	80	(80)	-	-	-
26	Maps	184	(184)	-	-	-
27	Outside Services	595	(595)	-	-	-
28	Rate application expense	8,000	(5,333)	2,667	-	2,667
29	Land Lease	3,805	(3,097)	708	-	708
30	Less - allocated to Maintenance	(3,097)	3,097	-	-	-
31	Supplies- Office	7,485	(2,204)	5,281	-	5,281
32	Building Supplies	102	-	102	-	102
33	Payroll taxes	6,665	58	6,723	-	6,723
34	Unemployment taxes	1,472	(1,030)	442	-	442
35	Taxes-Real Estate	19,655	(1,562)	18,093	-	18,093
36	Taxes-Other	20	-	20	-	20
37	Telephone	5,617	-	5,617	-	5,617
38	Uniforms	490	-	490	-	490
39	Consulting	32,739	(32,739)	-	-	-
40	Postage	3,139	-	3,139	-	3,139
41	Well Maintenance Materials	3,097	-	3,097	-	3,097
42	Meals	78	-	78	-	78
43	Management Consultant	6,200	(6,200)	-	-	-
44	Income Taxes	-	-	-	-	-
45	Depreciation	67,956	(14,862)	53,094	-	53,094
46	Total Operating Expenses	\$ 387,748	\$ (139,787)	\$ 247,962	-	\$ 247,962
46	Operating Income (Loss)	\$ (92,550)	\$ 125,789	\$ 33,238	\$ 54,244	\$ 87,482

References:

- Column (A): Company Schedule C-1
- Column (B): Schedule CRM-10
- Column (C): Column (A) + Column (B)
- Column (D): Schedules CRM-1
- Column (E): Column (C) + Column (D)

SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR

Schedule CRM-4A

LINE NO.	DESCRIPTION	COMPANY AS FILED	ADJ #1	ADJ #2	ADJ #3	ADJ #4	ADJ #5	ADJ #6	ADJ #7	ADJ #8	ADJ #9	ADJ #10	ADJ #11	ADJ #12	ADJ #13	ADJ #14	ADJ #15	ADJ #16	ADJ #17	ADJ #18	ADJ #19	ADJ #20	ADJ #21	ADJ #22	ADJ #23	STAFF ADJUSTED
1	REVENUES:																									
2	Measured Water Sales	\$ 231,278	7,002																							\$ 238,278
3	Standbys	41,098																								41,098
4	Reparations and Other Income	22,824	(21,000)																							3,824
5	Other Operating Revenue																									\$ 201,200
	Total Operating Revenues	\$ 295,198	7,002	(21,000)																						\$ 283,400
6	EXPENSES:																									
7	Rate Cases	\$ 36,893																								\$ 36,893
8	Rate Case Maintenance	49,271		(45,137)																						4,134
9	Wages	76,863				9,405																				86,268
10	Water Testing/Analysis	1,490					2,598																			4,088
11	Supplies	2,720						(9,073)																		6,647
12	Loan origination fees	11,842							(4,120)																	7,722
13	Bank service charges	18,387																								18,387
14	Dues and Publications	2,173																								2,173
15	Insurance-Vehicle	1,317																								1,317
16	Workers Compensation	1,000																								1,000
17	Travel	1,000																								1,000
18	Auto and Truck Expense	3,402																								3,402
19	Equipment Rental	109																								109
20	System Inspection	700																								700
21	Travel	895																								895
22	Strain	895																								895
23	Contributions	60																								60
24	Misc.	184																								184
25	Outside services	6,595																								6,595
26	Less-allocated to maintenance	3,805																								3,805
27	Less-allocated to maintenance	(3,097)																								(3,097)
28	Supplies-Office	7,485																								7,485
29	Building supplies	6,062																								6,062
30	Travel	20																								20
31	Travel	20																								20
32	Utilities	5,480																								5,480
33	Utilities	37,739																								37,739
34	Postage	3,138																								3,138
35	Well Maintenance Materials	3,097																								3,097
36	Management Consultation	6,200																								6,200
37	Depreciation	67,856																								67,856
38	Depreciation																									
39	Depreciation																									
40	Depreciation																									
41	Depreciation																									
42	Depreciation																									
43	Depreciation																									
44	Depreciation																									
45	Total Operating Expenses	\$ 387,748																								\$ 387,748
46	Operating Income (Loss)	\$ 82,551	7,002	(21,000)																						\$ 82,551

ADJ #

9	Consulting/Wages
10	Depreciation
21	Land Lease
22	Less-allocated to Maintenance
23	Less-allocated to Maintenance

References:
 Schedule CRM-6-19
 Schedule CRM-6-20
 Schedule CRM-6-21
 Schedule CRM-6-22
 Schedule CRM-6-23

ADJ #

10	System Inspection
11	Wages
12	Rate Application expense
13	Supplies-Office
14	Unemployment Taxes
15	Taxes-Real Estate

References:
 Schedule CRM-6-10
 Schedule CRM-6-11
 Schedule CRM-6-12
 Schedule CRM-6-13
 Schedule CRM-6-14
 Schedule CRM-6-15
 Schedule CRM-6-16
 Schedule CRM-6-17
 Schedule CRM-6-18

ADJ #

1	Metered Water Revenue
2	Standbys
3	Reparations & Maintenance
4	Water Testing/Analysis
5	Engineering/Survey
6	Loan Origination Fees
7	Bank Service Charges

References:
 Schedule CRM-6-1
 Schedule CRM-6-2
 Schedule CRM-6-3
 Schedule CRM-6-4
 Schedule CRM-6-5
 Schedule CRM-6-6
 Schedule CRM-6-7
 Schedule CRM-6-8
 Schedule CRM-6-9

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Schedule CRM 4A-1

OPERATING ADJUSTMENT #1 - METERED WATER SALES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Metered Water Sales	\$ 231,276	\$ 7,002	\$ 238,278

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 1
Schedule CRM-6A, Column [B] Line 1
Schedule CRM-6A, Column [C] Line 1

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Schedule CRM 4A-2

OPERATING ADJUSTMENT #2 - REGULATORS & OTHER INCOME

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Regulators & Other Income	\$ 22,824	\$ (21,000)	\$ 1,824

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 3
Schedule CRM-6A, Column [B] Line 3
Schedule CRM-6A, Column [C] Line 3

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Schedule CRM 4A-3

OPERATING ADJUSTMENT #3 - REPAIRS AND MAINTENANCE

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Repairs and Maintenance	\$ 49,271	\$ (45,137)	\$ 4,134

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 7
Schedule CRM-6A, Column [B] Line 7
Schedule CRM-6A, Column [C] Line 7

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Schedule CRM 4A-4

OPERATING ADJUSTMENT #4 - WAGES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Wages	\$ 76,963	\$ 9,405	\$ 86,368

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 8
Schedule CRM-6A, Column [B] Line 8
Schedule CRM-6A, Column [C] Line 8

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Schedule CRM 4A-5

OPERATING ADJUSTMENT #5 - WATER TESTING/ANALYSIS

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Water Testing/Analysis	\$ 1,490	\$ 2,598	\$ 4,088

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 9
Schedule CRM-6A, Column [B] Line 9
Schedule CRM-6A, Column [C] Line 9

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Schedule CRM 4A-6

OPERATING ADJUSTMENT #6 - ENGINEERING/SURVEY

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Engineering/Survey	\$ 9,073	\$ (9,073)	\$ -

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 10
Schedule CRM-6A, Column [B] Line 10
Schedule CRM-6A, Column [C] Line 10

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Schedule CRM 4A-7

OPERATING ADJUSTMENT #7 - ADVERTISING EXPENSE

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Advertising Expense	\$ 2,120	\$ (2,120)	\$ -

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 11
Schedule CRM-6A, Column [B] Line 11
Schedule CRM-6A, Column [C] Line 11

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Schedule CRM 4A-8

OPERATING EXPENSE # 8 - LOAN ORIGATION FEES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Loan Origination Fees	\$ 11,642	\$ (11,642)	\$ -

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 12
Schedule CRM-6A, Column [B] Line 12
Schedule CRM-6A, Column [C] Line 12

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Schedule CRM 4A-9

OPERATING ADJUSTMENT #9 - BANK SERVICE CHARGES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Bank Service Charges	\$ 18,387	\$ (18,387)	\$ -

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 13
Schedule CRM-6A, Column [B] Line 13
Schedule CRM-6A, Column [C] Line 13

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Schedule CRM 4A-10

OPERATING ADJUSTMENT #10 - SYSTEM INSPECTION

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Systems Inspection	\$ 700	\$ (700)	\$ -

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 22
Schedule CRM-6A, Column [B] Line 22
Schedule CRM-6A, Column [C] Line 22

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Schedule CRM 4A-11

OPERATING ADJUSTMENT #11 - CONTRIBUTIONS

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Contributions	\$ 80	\$ (80)	\$ -

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 25
Schedule CRM-6A, Column [B] Line 25
Schedule CRM-6A, Column [C] Line 25

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Schedule CRM 4A-12

OPERATING ADJUSTMENT #12 - MAP

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	MAP	\$ 184	\$ (184)	\$ -

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 26
Schedule CRM-6A, Column [B] Line 26
Schedule CRM-6A, Column [C] Line 26

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Schedule CRM 4A-13

OPERATING ADJUSTMENT #13 - OUTSIDE SERVICES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Outside Services	\$ 595	\$ (595)	\$ -

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 27
Schedule CRM-6A, Column [B] Line 27
Schedule CRM-6A, Column [C] Line 27

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Schedule CRM 4A-14

OPERATING ADJUSTMENT #14 - RATE APPLICATION EXPENSE

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Rate Application Expense	\$ 8,000	\$ (5,333)	\$ 2,667

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 28
Schedule CRM-6A, Column [B] Line 28
Schedule CRM-6A, Column [C] Line 28

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Schedule CRM 4A-15

OPERATING ADJUSTMENT #15-LAND LEASE

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Land Lease	\$ 8,000	\$ (5,333)	\$ 2,667

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 29
Schedule CRM-6A, Column [B] Line 29
Schedule CRM-6A, Column [C] Line 29

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Schedule CRM-4A-16

OPERATING ADJUSTMENT #16 - LESS ALLOCATED TO MAINTENANCE

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Less Allocated to Maintenance	\$ (3,097)	\$ 3,097	\$ -

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 30
Schedule CRM-6A, Column [B] Line 30
Schedule CRM-6A, Column [C] Line 30

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Schedule CRM 4A-17

OPERATING ADJUSTMENT #17 - SUPPLIES - OFFICE

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Supplies - Office	\$ 7,485	\$ (2,204)	\$ 5,281

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 31
Schedule CRM-6A, Column [B] Line 31
Schedule CRM-6A, Column [C] Line 31

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Schedule CRM 4A-18

OPERATING ADJUSTMENT #18 - PAYROLL TAXES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Payroll Taxes	\$ 6,665	\$ 58	\$ 6,723

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 33
Schedule CRM-6A, Column [B] Line 33
Schedule CRM-6A, Column [C] Line 33

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Schedule CRM 4A-19

OPERATING ADJUSTMENT #19 - UNEMPLOYMENT TAXES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Unemployment Taxes	\$ 1,472	\$ (1,030)	\$ 442

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 34
Schedule CRM-6A, Column [B] Line 34
Schedule CRM-6A, Column [C] Line 34

MOUNT TIPTON WATER COMPANY
Docket No. W-02105A-03-0303
Test Year Ended December 31, 2002

Schedule CRM 46A-20

OPERATING ADJUSTMENT #20- TAXES REAL ESTATE

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] STAFF ADJUSTMENT	[C] STAFF ADJUSTED
1	Staff adjusted Test Year Revenues			\$ 281,200
2	Weight Factor			2
3	Subtotal (Line 1 X Line 2)			\$ 562,400
4	Staff Recommended Revenue			\$ 335,739
5	Subtotal (Line 3 + Line 4)			\$ 898,139
6	Number of Years			3
7	Three Year Average (Line 5/ Line 6)			\$ 299,380
8	Department of Revenue Multiplier			2
9	Revenue Base Value (Line 7 X Line 8)			\$ 598,759
10	Plus: 10% of 2002 CWIP			\$ -
11	Less: Net Book Value of Licenced Vehicles			\$ -
12	Full Cash Value (Line 9 + Line 10 - Line 11)			\$ 598,759
13	Assessment Ratio			0.25
14	Assessed Value (Line 12 X Line 13)			\$ 149,690
15	Composite Property Tax Rate			0.120867
16	Staff proposed Property Tax Expense (Line 14 X Line 15)	\$ 19,655	\$ (1,562)	\$ 18,093

REFERENCES:

Column [A]: Line 16
Column [B]: Line 16
Column [C]: Line 16

Schedule CRM-6A, Column [A] Line 34
Schedule CRM-6A, Column [B] Line 34
Schedule CRM-6A, Column [C] Line 34

MOUNT TIPTON WATER COMPANY
Docket No. W-02105A-03-0303
Test Year Ended December 31, 2002

Schedule CRM 4A-21

OPERATING ADJUSTMENT #21 - CONSULTING / WAGES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Consulting	\$ 32,739	\$ (32,739)	\$ -

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 55
Schedule CRM-6A, Column [B] Line 55
Schedule CRM-6A, Column [C] Line 55

MOUNT TIPTON WATER COMPANY
Docket No. W-02105A-03-0303
Test Year Ended December 31, 2002

Schedule CRM 4A-22

OPERATING ADJUSTMENT # 22 - MANAGEMENT CONSULTANT

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Management Consultant	\$ 6,200	\$ (6,200)	\$ -

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 59
Schedule CRM-6A, Column [B] Line 59
Schedule CRM-6A, Column [C] Line 59

MOUNT TIPTON WATER COMPANY
Docket No. W-2105A-03-0303
Test Year Ended December 31, 2002

Schedule CRM 4A-23

OPERATING ADJUSTMENT # 23 - DEPRECIATION

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY AS FILED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Depreciation	\$ 67,956	\$ (14,862)	\$ 53,094

REFERENCES:

Column [A]: Line 1
Column [B]: Line 1
Column [C]: Line 1

Schedule CRM-6A, Column [A] Line 60
Schedule CRM-6A, Column [B] Line 60
Schedule CRM-6A, Column [C] Line 60

RATE DESIGN

Minimum Monthly Charge
METER SIZE

	PRESENT RATES	PROPOSED RATES	
		COMPANY	STAFF
5/8 X 3/4-inch	\$ 18.00	\$ 22.50	\$ 19.00
3/4 - inch	\$ 25.00	\$ 31.25	\$ 28.50
1.0-inch	\$ 27.00	\$ 33.75	\$ 47.50
1.5-inch	\$ 50.00	\$ 62.50	\$ 95.00
2.0-inch	\$ 70.00	\$ 87.50	\$ 152.00
3.0-inch	\$ 90.00	\$ 112.50	\$ 285.00
4.0-inch	\$ 100.00	\$ 125.00	\$ 475.00
6.0-inch	\$ 200.00	\$ 250.00	\$ 950.00
8.0-inch	\$ 300.00	\$ 375.00	\$ 1,425.00

Gallons included in the Minimum

1,000 - - 0

Commodity Charge in Excess of Minimum - per 1,000 Gallons:

From 1,001 gallons to 20,000 gallons	\$ 1.80		
From 20,001 gallons to 40,000 gallons	\$ 2.35		
Over 40,000 gallons	\$ 3.00		
Tier one all meter sizes up to 10,000 gallons		\$ 2.25	
Tier two all meter sizes from 10,001 gallons to 15,000 gallons		\$ 4.50	
Tier Three all meter sized from 15,001 gallons to 20,000 gallons		\$ 9.00	
Tier four all meter sizes from 20,001 gallons to 25,000 gallons		\$ 13.00	
Tier five all meter sizes from 25,001 gallons to 30,000 gallons		\$ 18.00	
Tier six all meter sizes all gallons over 30,000 gallons		\$ 22.50	
For 5/8x3/4 inch meter size			
Tier one from zero gallons to 4,000 gallons			\$ 2.45
Tier two 4,001 gallons to 9,000 gallons			\$ 3.20
Tier three all gallons over 9,000 gallons			\$ 4.20
For 3/4-inch meter size			
Tier one from zero to 4,000 gallons			\$ 2.45
Tier two 4,001 gallons to 15,000 gallons			\$ 3.20
Tier three all gallons over 15,000 gallons			\$ 4.20
For One inch meter size			
Tier one from zero gallons to 25,000 gallons			\$ 3.20
Tier two all gallons over 25,000 gallons			\$ 4.20
For One and One half inch meter size			
Tier one from zero gallons to 70,000 gallons			\$ 3.20
Tier two all gallons over 70,000 gallons			\$ 4.20
For Two inch meter size			
Tier one from zero gallons to 125,000 gallons			\$ 3.20
Tier two all gallon over 125,000 gallons			\$ 4.20
For Three inch meter size			
Tier one from zero gallons to 250,000 gallons			\$ 3.20
Tier two all gallons over 250,000 gallons			\$ 4.20
For four inch meter			
Tier one from zero gallons to 400,000 gallons			\$ 3.20
Tier two all gallons over 400,000 gallons			\$ 4.20
For Six inch meter size			
Tier one from zero gallons to 825,000 gallons			\$ 3.20
Tier two all gallons over 825,000 gallons			\$ 4.20
For Eight inch meter size			
Tier one from zero gallons to 1,250,000 gallons			\$ 3.20
Tier two all gallons over 1,250,000 gallons			\$ 4.20
Bulk Sales Commodity Charge:			
Per 1,000 gallons	\$ 3.08		
With assistance	\$ 5.00		
Without assistance	\$ 3.00		
Residential use - per 1,000 gallons		\$ 6.25	
All bulk sales			\$ 4.20

RATE DESIGN

Off-site facilities hook-up fees

Size factor:	Hook-up fee:		
1 5/8x3/4-inch	\$ 700	\$ 800	\$ 800
12 3/4-inch	\$ 840	\$ 840	\$ 840
2 1-inch	\$ 1,400	\$ 1,400	\$ 1,400
4 1 1/2-inch	\$ 2,800	\$ 2,800	\$ 2,800
6.4 2-inch	\$ 4,480	\$ 4,480	\$ 4,480
12 3-inch	\$ 8,400	\$ 8,400	\$ 8,400
20 4-inch	\$ 14,000	\$ 14,000	\$ 14,000
40 6-inch	\$ 28,000	\$ 28,000	\$ 28,000

Service Line and Meter Installation Charges

Meter Size	Deposit Amount		
5/8-inch x 3/4-inch	\$ 350	\$ 437.50	\$ 438
3/4-inch	\$ 370	\$ 462.50	\$ 462
1-inch	\$ 450	\$ 562.50	\$ 562
1 1/2-inch	\$ 670	\$ 837.50	\$ 838
2-inch	\$ 875	\$ 1,093.75	\$ 1,094
3-inch	\$ 1,025	\$ 1,281.25	\$ 1,281
4-inch	\$ 2,700	\$ 3,375.00	\$ 3,375
6-inch	\$ 3,825	\$ 4,781.25	\$ 4,781
8-inch		\$ 5,000.00	\$ 5,000

Service Charges

Establishment	\$ 25.00	\$ 25.00	\$ 25.00
Establishment - (after hours)	\$ 40.00	\$ 40.00	\$ 40.00
Reconnect (Delinquent)	\$ 40.00	\$ 40.00	\$ 40.00
Reconnection (After Hours)	\$ 40.00		\$ 40.00
To send delinquent notice	\$ 1.00		0.00
New service impact fee	\$ 40.00	10% of meter fee plus \$1,500 per 100 feet mainline ext.	0.00
Meter test (If correct)	\$ 40.00	\$ 40.00	\$ 40.00
Meter Reread (If Correct)	\$ 10.00	\$ 10.00	\$ 10.00
Non-sufficient Check Charge	\$ 15.00	\$ 15.00	\$ 15.00
Deposit (security)	*	*	*
Security Interest (Per Annum)	6%	*	*
Late Pmt Penalty (Per Annum)	10%		0.00
Deferred Payment - Monthly Rate	10%	***	*
Deferred Pmt (Per Annum)	12%		0.00
Re-establishment (within 12 Months)	**	**	**
Re-establishment (after hours)		40.00 Plus **	0.00
Customer requested meter move		cost	0.00
Late charge per month		1.50%	***
Discharge charge (requested)		\$5.00 pro-rata plus monthly minimum usage charge to apply	0.00
Hourly charge (after hours service)		Cost	0.00
Water line crossing paved road		Cost	0.00
Charges emergency service not caused by company		Cost	0.00
Meter installation tampering		Cost	0.00
Line extension agreements		Cost	0.00
6" mainline extension administrative cost		1,500.00	0.00
Cost for rock excavation (non-refundable)		Cost	0.00
Sprinkler rate		n/a	0.00
Master metering		n/a	0.00
Capitol maintenance charge		2.5% of monthly usage	0.00
Sprinkler rate			0.00
Deferred Pmt (per amun)			0.00

* Per Commissions Rules (R14-2-403.B)

** Months off system times the minimum (R14-2-403.D)

*** 1.50% of unpaid monthly balance

TYPICAL BILL ANALYSIS
General Service 5/8 - Inch Meter

Average Number of Customers: 740

<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	5,548	\$28.69	\$45.21	\$16.52	57.6%
Median Usage	3,342	\$23.50	\$35.29	\$11.79	50.2%
<u>Staff Proposed</u>					
Average Usage	5,548	\$28.69	\$33.95	\$5.26	18.3%
Median Usage	3,342	\$23.50	\$27.35	\$3.85	16.4%

Present & Proposed Rates (Without Taxes)
General Service 5/8 - 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	\$18.00	\$22.50	25.0%	\$19.00	5.6%
1,000	18.00	24.75	37.5%	21.50	19.4%
2,000	20.35	29.25	43.7%	24.00	17.9%
3,000	22.70	33.75	48.7%	26.50	16.7%
4,000	25.05	38.25	52.7%	29.00	15.8%
5,000	27.40	42.75	56.0%	32.20	17.5%
6,000	29.75	47.25	58.8%	35.40	19.0%
7,000	32.10	51.75	61.2%	38.60	20.2%
8,000	34.45	56.25	63.3%	41.80	21.3%
9,000	36.80	60.75	65.1%	45.00	22.3%
10,000	39.15	65.25	66.7%	49.20	25.7%
15,000	50.90	110.25	116.6%	70.20	37.9%
20,000	62.65	175.25	179.7%	91.20	45.6%
25,000	77.65	265.25	241.6%	112.20	44.5%
50,000	80.65	287.75	256.8%	217.20	169.3%
75,000	83.65	310.25	270.9%	322.20	285.2%
100,000	86.65	332.75	284.0%	427.20	393.0%
125,000	89.65	355.25	296.3%	532.20	493.6%
150,000	92.65	377.75	307.7%	637.20	587.7%

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

Actual Usage Customer Bills randomly picked by the Company.
12 Months usage for 2003

<u>High Consumer</u>	Company				Staff	
	Actual Gallons	Present Rates	Proposed Rates	% Increase	Proposed Rates	% Increase
January	61,750	\$ 164.45	\$ 981.88	497.1%	\$ 271.50	65.1%
February	66,220	137.20	\$ 1,082.45	689.0%	\$ 290.27	111.6%
March	66,620	137.92	\$ 1,091.45	691.4%	\$ 291.95	111.7%
April	70,690	145.24	\$ 1,183.03	714.5%	\$ 309.05	112.8%
May	45,410	99.74	\$ 614.23	515.8%	\$ 202.87	103.4%
June	76,030	154.85	\$ 1,303.18	741.6%	\$ 331.48	114.1%
July	76,820	156.28	\$ 1,320.95	745.3%	\$ 334.79	114.2%
August	59,330	124.79	\$ 927.43	643.2%	\$ 261.34	109.4%
September	50,120	108.22	\$ 720.20	565.5%	\$ 222.65	105.7%
October	62,560	130.61	\$ 1,000.10	665.7%	\$ 274.90	110.5%
November	49,200	106.56	\$ 699.50	556.4%	\$ 218.79	105.3%
December	51,350	110.43	\$ 747.88	577.2%	\$ 227.82	106.3%
Total	736,100	\$ 1,576.28	\$ 11,672.25	640.5%	\$ 3,237.42	105.4%
Average Usage	61,342	\$ 131.36	\$ 972.69	640.5%	\$ 269.79	105.4%

<u>Low Consumer</u>	Company				Staff Proposed Rates	
	Actual Gallons	Present Rates	Proposed Rates	% Increase	Excluding Surcharge	% Increase
January	960	\$ 19.73	\$ 24.66	25.0%	\$ 26.75	35.6%
February	110	18.20	\$ 22.75	25.0%	\$ 24.67	35.6%
March	190	18.34	\$ 22.93	25.0%	\$ 24.87	35.6%
April	130	18.23	\$ 22.79	25.0%	\$ 24.72	35.6%
May	610	19.10	\$ 23.87	25.0%	\$ 25.89	35.6%
June	830	19.49	\$ 24.37	25.0%	\$ 26.43	35.6%
July	920	19.66	\$ 24.57	25.0%	\$ 26.65	35.6%
August	1,560	20.81	\$ 26.01	25.0%	\$ 28.22	35.6%
September	1,410	20.54	\$ 25.67	25.0%	\$ 27.85	35.6%
October	1,530	20.75	\$ 25.94	25.0%	\$ 28.15	35.6%
November	660	19.19	\$ 23.99	25.0%	\$ 26.02	35.6%
December	1,220	20.20	\$ 25.25	25.0%	\$ 27.39	35.6%
Total	10,130	\$ 234.23	\$ 292.79	25.0%	\$ 317.62	35.6%
Average Usage	844	\$ 19.52	\$ 24.40	25.0%	\$ 26.47	35.6%

HAINS

BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. W-02105A-03-0303
MT. TIPTON WATER COMPANY, INC.,)
AN ARIZONA CORPORATION, FOR A RATE)
INCREASE)

DIRECT TESTIMONY
OF
DOROTHY HAINS
UTILITIES ENGINEER
UTILITIES DIVISION

APRIL 16, 2004

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CONCLUSIONS AND RECOMMENDATIONS	5

SCHEDULES

Engineering Report for Mt. Tipton Water Company.....	EXHIBIT-1
--	-----------

1 **INTRODUCTION**

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

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

5
6 **Q. By whom and in what position are you employed?**

7 A. I am employed by the Arizona Corporation Commission ("Commission") as a Utilities
8 Engineer - Water/Wastewater in the Utilities Division.

9
10 **Q. How long have you been employed by the Commission?**

11 A. I have been employed by the Commission since January 1998.

12
13 **Q. What are your responsibilities as a Utilities Engineer - Water/Wastewater?**

14 A. Among other responsibilities, I inspect, investigate and evaluate water and wastewater
15 systems; obtain data, prepare reconstruction cost new and/or original cost studies, cost of
16 service studies and investigative reports; interpret rules and regulations; suggest corrective
17 action and provide technical recommendations on water and wastewater system deficiencies;
18 and provide written and oral testimony on rates and other cases before the Commission.

19
20 **Q. How many companies have you analyzed for the Utilities Division?**

21 A. I have analyzed approximately 78 companies covering these various responsibilities for the
22 Utilities Division.

23
24 **Q. Have you previously testified before this Commission?**

25 A. Yes, I have testified before this Commission.

26 ...

27 ...

28 ...

1 **Q. What is your educational background?**

2 A. I graduated from Alabama University in Birmingham in 1987 with a Bachelor of Science
3 degree in Civil Engineering.

4
5 **Q. Briefly describe your pertinent work experience.**

6 A. Prior to my employment with the Commission, I was an Environmental Engineer for the
7 Arizona Department of Environmental Quality, for ten years. Prior to that, I was an
8 Engineering Technician with C. F. Hains, Hydrology in Northport, Alabama for
9 approximately five years.

10

11 **Q. Please state your professional membership, registrations, and licenses.**

12 A. I am a member of the American Society of Civil Engineering ("ASCE"). I am a registered
13 Civil Engineer in Arizona.

14

15 **PURPOSE OF TESTIMONY**

16 **Q. What was your assignment in this rate proceeding?**

17 A. My assignment was to provide Staff's engineering evaluation of the Mt. Tipton Water
18 Company ("Mt. Tipton" or "Company").

19

20 **Q. What is the purpose of your testimony in this proceeding?**

21 A. To present the findings of Staff's engineering evaluation of Mt. Tipton's operation. Those
22 findings are contained in the Engineering Report that I have prepared for this proceeding.
23 This report is included as Exhibit-1, in this pre-filed testimony.

24 ...

25 ...

26 ...

27 ...

28 ...

1 **ENGINEERING REPORT**

2 **Q. Would you briefly describe what was involved in preparing the Engineering Report for**
3 **the water operations in this rate proceeding?**

4 A. After reviewing Mt. Tipton's rate application, I physically inspected the water system to
5 evaluate its operations and to determine which plant items were or were not used and useful.
6 I contacted the Arizona Department of Environmental Quality ("ADEQ") to determine if the
7 system was in compliance with ADEQ requirements. I obtained information from Mt.
8 Tipton regarding water testing and water usage and analyzed that information. Based on this
9 data, I made my evaluations and prepared the Engineering Report attached as Exhibit-1.

10

11 **Q. Please describe the information contained in Exhibit-1.**

12 A. Exhibit-1 is the Engineering Report for Mt. Tipton's operation, this Report can be divided
13 into three general sections: 1) *Purpose of Report*; 2) *Discussions*, and 3) *Conclusions and*
14 *Recommendations*. The *Discussions* section can be further divided into ten subsections: A)
15 Location of System; B) Description of System; C) Arsenic; D) Water Usage; E) Growth
16 Projection; F) ADEQ Compliance; G) Arizona Department of Water Resources ("ADWR")
17 Compliance; H) Arizona Corporation Commission ("ACC") Compliance; I) Water Testing
18 Expenses; J) Depreciation Rates; and K) Others. These subsections provide information
19 about Mt. Tipton system.

20

21 **CONCLUSIONS AND RECOMMENDATIONS**

22 **Q. What are Staff's conclusions and recommendations regarding Mt. Tipton's operation?**

23 A. Based upon Staff's engineering evaluation of Mt. Tipton's operation, Staff has concluded the
24 following:

25 1) The most recent lab analysis by the Company indicated that the arsenic levels in the
26 Company's supply are below the new arsenic MCL;

27

28

- 1 2) According to the Utilities Division Compliance Unit, the Company has no
2 outstanding ACC compliance issues;
3
4 3) The Company is not in any ADWR Active Management Area.
5
6 4) Arizona Department of Environmental Quality (“ADEQ”) has determined that Mt.
7 Tipton Water Co (“Mt. Tipton” or “Company”) is currently delivering water that meets
8 water quality standards required by Arizona Administrative Code, title 18, Chapter 4.

9
10 Staff’s recommendations are listed as follows:

- 11 1) Staff recommends that the Company use specific depreciation rates by the National
12 Association of Regulatory Utility Commissioners (“NARUC”) category;
13
14 2) There is an average of 19.42 percent of non-account water determined in the system.
15 Staff recommends that the Company reduce its water loss to less than 10 percent within
16 eighteen months after the effective date of the Decision in this matter. Staff further
17 recommends that the Company file quarterly reports with the Director of the Utilities
18 Division, indicating the quantity of water pumped and sold each month during the quarter
19 and the efforts made to reduce water loss, such as number of leaks repaired, meters replaced,
20 pipeline flushing, etc. These reports should be filed on a March 31st, June 30th, September
21 30th, and December 31st quarterly schedule. The first quarterly report should be filed within
22 120 days of the effective date of the Decision in this matter. Staff further recommends that
23 the reporting may end, if the Company shows that average water loss for two consecutive
24 quarters is below 10 percent. If after eighteen months of the effective date of the Decision in
25 this matter the Company has failed to reduce its non-account water below 15 percent, Staff
26 further recommends that any new Main Extension Agreements submitted by the Company
27 should be denied until the Company shows that average water loss for two consecutive
28 quarters is below 15 percent. If the Company finds that water loss can only be reduced to

1 less than 15 percent, but not less than 10 percent within eighteen months after the effective
2 date of the Decision in this matter, the Company shall submit, by December 31, 2005, or
3 prior to its next rate case whichever comes first, a detailed cost analysis and explanation
4 demonstrating why a water loss reduction to less than 10 percent is not cost effective.
5

6 3) Well No. 9 is not used and useful, due to bacteria infection. According to the well
7 drilling log report in ADWR's database, the cost of drilling this well was \$4,900 in 1962.
8 Staff estimates that the cost of the 3-HP pump was \$322 in 1962;
9

10 4) Water testing expenses are based upon participation in the ADEQ Monitoring
11 Assistance Program. Annual testing expenses should be adjusted to \$ 4,088, the level
12 described in Table 8 of the Engineering Report.
13

14 5) Staff recommends that the fire hydrants be removed from rate base as not used and
15 useful.
16

17 6) Staff has no objection to the Company's proposal to increase its Hook-up Fee Charge
18 for a $\frac{5}{8}$ x $\frac{3}{4}$ inch meter to \$800.
19

20 **Q. Does this conclude your pre-filed testimony?**

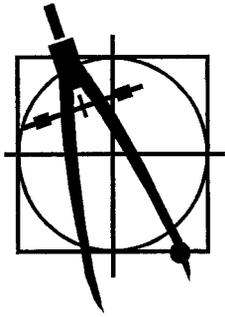
21 **A. Yes, it does.**
22
23
24
25
26
27
28

EXHIBIT 1

ENGINEERING REPORT FOR MT. TIPTON WATER COMPANY

BY DOROTHY HAINS

APRIL 16, 2004



**Engineering Report
For Mt. Tipton Water Company
By Dorothy Hains
Docket No. W-02105A-03-0303
(Rate Application)**

April 16, 2004

EXECUTIVE SUMMARY

Recommendations:

1. Staff recommends that the Company use specific depreciation rates by the National Association of Regulatory Utility Commissioners ("NARUC") category. (See §K and Exhibit 6 for a discussion and a tabulation of the recommended rates.)
2. There is an average of 19.42 percent of non-account water determined in the system. Staff recommends that the Company reduce its water loss to less than 10 percent within eighteen months after the effective date of the Decision in this matter. Staff further recommends that the Company file quarterly reports with the Director of the Utilities Division, indicating the quantity of water pumped and sold each month during the quarter and the efforts made to reduce water loss, such as number of leaks repaired, meters replaced, pipeline flushing, etc. The first quarterly report should be filed within 120 days of the effective date of the Decision in this matter. Staff further recommends that the reporting may end, if the Company shows that average water loss for two consecutive quarters is below 10 percent.

If after eighteen months of the effective date of the Decision in this matter the Company has failed to reduce its non-account water below 15 percent, Staff further recommends that any new Main Extension Agreements submitted by the Company should be denied until the Company shows that average water loss for two consecutive quarters is below 15 percent.

If the Company finds that water loss can only be reduced to less than 15 percent, but not less than 10 percent within eighteen months after the effective date of the Decision in this matter, the Company shall submit, by December 31, 2005, or prior to its next rate case whichever comes first, a detailed cost analysis and explanation demonstrating why a water loss reduction to less than 10 percent is not cost effective. (See §E of report for discussion and details).

3. Well No. 9 is not used and useful, due to bacteria infection. According to the well drilling log report in the Arizona Department of Water Resources ("ADWR") database, the cost of drilling this well was \$4,900 in 1962. Staff estimates that the cost of the 3-HP pump was

\$322 in 1962. (See §L of report for discussion and details.)

4. Water testing expenses are based upon participation in the ADEQ Monitoring Assistance Program ("MAP"). Annual testing expenses should be adjusted to \$4,088, the level described in Table 8. (See §J of report for discussion and details.)
5. Staff recommends that the fire hydrants be removed from rate base as not used and useful.
6. Staff has no objection to the Company's proposal to increase its Hook-up Fee Charge for a 5/8 x 3/4 inch meter to \$800. (See §L of report for discussion and details.)

Conclusions:

1. The most recent lab analysis by the Company indicated that the arsenic levels in the Company's supply are below the new arsenic MCL. (See §D of report for discussion and details.)
2. According to the Utilities Division Compliance Unit, the Company has no outstanding ACC compliance issues. (See §I of report for discussion and details.)
3. The Company is not in any ADWR Active Management Area. (See §H of report for discussion and details.)
4. Arizona Department of Environmental Quality ("ADEQ") has determined that Mt. Tipton Water Co ("Mt. Tipton" or "Company") is currently delivering water that meets water quality standards required by Arizona Administrative Code, title 18, Chapter 4. (See §G of report for discussion and details.)

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**ENGINEERING REPORT
FOR
MT. TIPTON WATER COMPANY, INC.
DOCKET NO. W-02105A-03-0303 (RATES)**

A. PURPOSE OF REPORT

This report was prepared in response to the application for a rate increase by Mt. Tipton Water Company, Inc. ("Mt. Tipton" or "Company"). An inspection and evaluation of the Mt. Tipton water system was conducted by Dorothy Hains, Utility Engineer, accompanied by Charles Myhlhousen, Public Utilities Analyst, and Kevin Teter, the Company's water system Operator, on October 6 and 7, 2003.

B. LOCATION OF SYSTEM

The Company's service area is approximately 35 miles northeast of the City of Kingman in Mohave County. Exhibit 1 shows the approximate 11 square-miles of certificated area, and Exhibit 2 shows the location of the Company within Mohave County.

C. DESCRIPTION OF SYSTEM

I. System Description

The Company owns and operates a water system that consists of eight wells, ten storage tanks and one pressure tank and a distribution system. Exhibits 3A and 3B are schematic drawings of the water system; a detailed description of the facility's system is as follows:

Table 1. Well Data

Well Name	ADWR ID No.	Pump HP	Yield GPM	Casing Size (in inch) & Depth (in ft)	(Meter Size inch)	Year drilled
Well #1	55-606511	15	40	8" x 600'	2	1972
Well #2	55-508835	15	32	8" x 700'	2	1984
Well #3	55-520733	5	7	8" x 540'	2	1988
Well #4	55-502441	50	253	8" x 640'	4	1982
Well #5	55-510178	15	44	8" x 900'	3	1985
Well #6	55-601846	7½	40	6¾" x 480'	2	1966
Well #7	55-601847	7½	40	6¾" x 500'	2	1978
Well #8 (horizontal Well)	55-601848	N	10	2" x 147' (horizontal)	1½	1972
Well #9 (spring well)	55-601849	10	25	8" x 356'	1½	1962
		TOTAL:	467 GPM			

Table 2. Storage Tanks

Capacity (Gallons)	Quantity (Each)	Location
10,000	1	Pierce Ferry Rd (Dolan Springs)
8,500	2	Pierce Ferry Rd (Dolan Springs)
25,000	1	Hill Storage Tanks Site (Dolan Springs)
50,000	1	Hill Storage Tanks Site (Dolan Springs)
70,000	1	Foothill of "Horizontal Well (Dolan Springs)
50,000	1	Tank Site #1 (Mt. Tipton)
85,000	1	Tank Site #1 (Mt. Tipton)
50,000	1	Tank Site #2 (Mt. Tipton) installed in 1988.
200,000	1	Tank Site #2 (Mt. Tipton), installed in 1999.
Totals: 557,000 gallons	10	

Table 3. Booster Systems

Location	Plant Facilities	Comments
@ Well #1 Site (Ironwood Ave.)	3-Hp Booster pump	
	A concrete structure (10"x 12')	
@ Tank Site #1.	Two 5-HP Booster pump	Installed in 2003. Included in Table 2: 50,000 gal. & 85,000 gal storage tanks
	20'x20' concrete building	
@ Well #6 site.	One 10-HP Booster pump	Included in Table 2: 10,000 gal. & 8,500 gal storage tanks
	One 7½-HP Booster pump	Included in Table 2: 10,000 gal. & 8,500 gal storage tanks
	10' x 10' Building	

Table 4. Distribution Mains

Diameter	Material	Length
8 inch	polyvinyl chloride ("PVC")	11,490 feet
6 inch	PVC	76,580 feet
4 inch	PVC	29,645 feet
3 inch	PVC	680 feet
2 inch	PVC	8,945 feet

Table 5. Meters

Size	Quantity
5/8 x 3/4 inch	800
1 inch	2
1½ inch	2
2 inch	1
4 inch (comp)	1

Prior to 2002, the Company only owned the Mt. Tipton system. In Decision No. 64287 (issued on December 28, 2001), the Commission approved Mt. Tipton's purchase of the Dolan Springs Water Company. In early 2002, the Mt. Tipton system (except Well No. 4) and the Dolan Springs system (except Well No. 9 which had a bacteria problem) were interconnected. After water from the wells is pumped into storage tanks, customers receive the water through a gravity flow distribution system. Although the Company installed two fire hydrants (one in 1980 and another in 2002), the system was not designed to carry fire flow.

II. System Analysis

The consolidated system has adequate production and storage capacity to support the existing customer base. Although there are fire hydrants installed in the system, it is Staff's opinion that the system cannot provide adequate fire flow. Because of this, Staff recommends that the fire hydrants be removed from rate base as not used and useful.

D. ARSENIC

The U.S. Environmental Protection Agency ("EPA") has reduced the arsenic maximum contaminant level ("MCL") in drinking water from 50 micrograms per liter (" $\mu\text{g/l}$ ") to 10 $\mu\text{g/l}$. The date for compliance with the new MCL is January 23, 2006. The most recent lab analysis by the Company indicated that the arsenic levels in the Company's supply are below the new arsenic MCL.

E. WATER USAGE

Table 6 summarizes the water usage in the Company's CC&N area. Exhibit 4 is a graph that shows the Company's water consumption data during the test year 2002.

Table 6 Water Usage

Month	Number of Customers	Water Sold (gallons)	Water pumped (gallons)	Water purchased (gallons)	Water Loss (%)	Daily Average (gal/day/customer)
Jan 02	736	3,694,000	4,612,000	0	19.90	162
Feb 02	726	3,410,000	4,369,000	0	21.95	168
Mar 02	734	3,415,000	4,192,000	0	18.54	150
Apr 02	743	4,440,000	5,303,000	0	16.27	199
May 02	735	5,131,000	5,907,000	0	13.14	225
Jun 02	738	5,658,000	6,319,000	0	10.46	256
Jul 02	736	5,478,000	6,735,000	0	18.66	240
Aug 02	741	5,915,000	7,195,000	0	17.79	257
Sep 02	739	4,777,000	5,882,000	0	18.79	215
Oct 02	732	3,965,000	5,672,000	0	30.10	175
Nov 02	726	3,370,000	4,718,000	0	28.57	155
Dec 02	724	3,010,000	3,594,000	0	16.25	134
Jan 03	725	3,654,000	4,894,000	0	25.34	163
Total		55,917,000	69,392,000	0		
Average					19.42	195

I. Water Sold

Based on information provided by the Company, during the test year the Company experienced a daily average usage of 195 gallons per day (“gpd”) per customer, a high usage of 257 gpd per customer and a low usage of 134 gpd per customer. The highest monthly usage occurred in August, when 5,915,000 gallons were sold to 741 customers. The lowest monthly usage occurred in December, when 3,010,000 gallons were sold to 724 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 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. Non-account water for Mt. Tipton was calculated to be 19.42 percent annually, which exceeds an acceptable limit. Records also indicate that the Company had non-account water exceeding 20 percent for four of the months during the test year.

Staff recommends that the Company reduce its water loss to less than 10 percent within eighteen months after the effective date of the Decision in this matter. Staff further recommends that the Company file quarterly reports with the Director of the Utilities Division, indicating the quantity of water pumped and sold each month during the quarter and the efforts made to reduce water loss, such as number of leaks repaired, meters replaced, pipeline flushing, etc. The first quarterly report should be filed within 120 days of the effective date of the Decision in this matter. Staff further

recommends that the reporting may end, if the Company shows that average water loss for two consecutive quarters is below 10 percent.

If after eighteen months of the effective date of the Decision in this matter the Company has failed to reduce its non-account water below 15 percent, Staff further recommends that any new Main Extension Agreements submitted by the Company should be denied until the Company shows that average water loss for two consecutive quarters is below 15 percent.

If the Company finds that water loss can only be reduced to less than 15 percent, but not less than 10 percent within eighteen months after the effective date of the Decision in this matter, the Company shall submit, by December 31, 2005, or prior to its next rate case whichever comes first, a detailed cost analysis and explanation demonstrating why a water loss reduction to less than 10 percent is not cost effective.

F. GROWTH PROJECTION

Exhibit 5 details total actual and projected growth for the system using linear regression analysis. The number of service connections was obtained from annual reports submitted to the Commission. Based on the service meter data contained in these reports, the number of connections increased from 522 at the end of 1994 to 724 by the end of 2002, with an average growth rate of 10 connections per year. Based on the linear regression analysis, the Company could have approximately 826 customers by the end of 2007. The following table summarizes actual and projected growth in the Company's existing certificated service area.

Table 7. Actual and Projected Growth

Year	Nos. of Customers	
1994	677*	Reported
1995	687*	Reported
1996	689*	Reported
1997	707*	Reported
1998	758*	Reported
1999	784*	Reported
2000	800*	Reported
2001	740*	Reported
2002	724	Reported
2003	783	Estimated
2004	794	Estimated
2005	805	Estimated
2006	816	Estimated
2007	826	Estimated

Note: "*"sum of the number of customers for both the Dolan Springs system and Mt. Tipton system.

G. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY ("ADEQ") COMPLIANCE

Staff received a memorandum from ADEQ on December 19, 2003, in which ADEQ stated that ADEQ determined the water system is currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.

H. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR") COMPLIANCE

Mt. Tipton is not in any ADWR Active Management Area. Therefore, the Company is not subject to ADWR's gallons per capita per day ("gpcd") limit and conservation rules.

I. ARIZONA CORPORATION COMMISSION ("ACC") COMPLIANCE

According to the Utilities Division Compliance Unit, the Company has no outstanding ACC compliance issues.

J. WATER TESTING EXPENSES

Mt. Tipton 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, nitrates, and coliform bacteria.
2. ADEQ testing is performed in 3 year compliance cycles. Therefore, monitoring costs are estimated for a 3 year compliance period and then presented as a pro forma expense on an annualized basis.
3. MAP fees were calculated from the ADEQ MAP rules.
4. All monitoring expenses are based on Staff's best knowledge of lab costs and methodology and two points of entry.
5. 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.

Table 8 shows the estimated annual monitoring expense, assuming participation in the MAP program. Water testing expenses should be adjusted to the annual expense amount shown in Table 8, which is \$ 4,088.

Table 8 Water Testing Cost

Monitoring – 9 wells (Tests per 3 years, unless noted.)	Cost per test	No. of tests per 3 years	Total 3 year cost	Annual Cost
Bacteriological – monthly	\$15	216	\$3,240	\$1,080
Inorganics (& secondary)	\$240	6	\$1,440	\$480
Radiochemical – (1/ 4 yr)	\$55			MAP
IOC's, SOC's, VOC's				MAP
Nitrites	\$15			MAP
Nitrates – annual	\$25	18	\$450	\$150
Asbestos – per 9 years	\$180			MAP
Lead & Copper – annual	\$25	60	\$1,500	\$500
MAP fees (annual)				\$1,878.25
Total				\$4,088

K. DEPRECIATION RATES

Staff has developed typical and customary depreciation rates within the range of anticipated equipment life. These rates are presented in Exhibit 6, and were used to re-calculate the annual depreciation expense for the Company. It is recommended that the Company use depreciation rates by the National Association of Regulatory Utility Commissioners (“NARUC”) category, as delineated in Exhibit 6.

L. OTHERS

I. Service Line and Meter Installation Charges

The Company has requested to change its meter and service line charges. These charges are refundable advances and the Company’s proposed charges are within Staff’s experience of reasonable and customary charges. Therefore, Staff accepts the Company’s proposed meter and service line installation charges.

Service Line and Meter Installation Charges

Meter Size	Current Charges	Proposed Charges	Staff Recommendation
5/8 x 3/4-inch	\$350	\$437.5	\$438
3/4-inch	\$370	\$462	\$462
1-inch	\$450	\$562	\$562
1-1/2-inch	\$670	\$837.5	\$838
2-inch	\$875	\$1,093.75	\$1,094
3-inch	\$1,025	\$1,281.25	\$1,281
4-inch	\$2,700	\$3,375	\$3,375
6-inch	\$3,825	\$4,781.25	\$4,781
8-inch	N/A	5,000	5,000

II. Offsite Facilities Hook-up Fees

In Decision No. 60988, effective July 15, 1998, the Commission approved a Hook-up Fee Charge to install the Detrital Well Improvements: eight miles of new transmission main, a booster station, and a 200,000 gallon storage tank. During its field inspection, Staff observed that the 200,000 gallon storage tank and a booster station within the Detrital Well (Well #4) Site had been completed and were in use. However, the construction of eight miles of transmission main to connect the Detrital Well with the storage tanks has not even begun. Because the Detrital Well produces more than 50% of the Company's total well production and the delivery system is designed for gravity flow, it is necessary to connect the Detrital Well and the storage tanks in order to meet the peak demand especially during drought conditions. Therefore, Staff concludes that this improvement would be beneficial in ensuring that an adequate source of water is available to the system.

In Decision No. 60988, the Commission approved a Hook-up Fee Charge of \$700 for a 5/8 x 3/4 inch meter contingent upon the Company obtaining an award for a Community Development Block Grant ("CDBG") for the purchase and installation of a new storage tank. The Commission's Decision also provided that if the CDBG was not awarded, then the hook-up fee should be calculated on a basis of \$800 for a 5/8 x 3/4 inch meter. The current tariffed rate is \$700 and the Company is proposing to increase this rate to \$800 since, according to the Company, it never received the CDBG award for the new storage tank. Therefore, Staff has no objection to the Company's proposal to increase its Hook-up Fee Charge for a 5/8 x 3/4 inch meter to \$800.

Hookup fee Charges

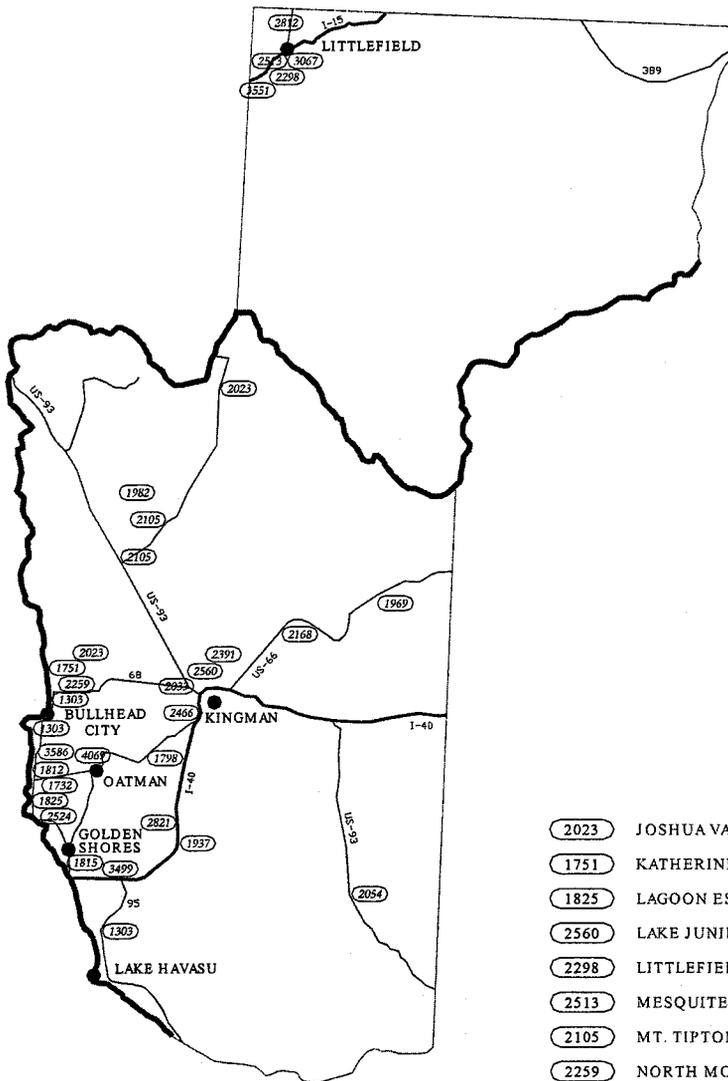
Meter Size	Current Charges	Proposed Charges	Staff Recommendation
5/8 x3/4-inch	\$700	\$800	\$800
3/4-inch	\$840	\$840	\$840
1-inch	\$1,400	\$1,400	\$1,400
1-1/2-inch	\$2,800	\$2,800	\$2,800
2-inch	\$4,480	\$4,480	\$4,480
3-inch	\$8,400	\$8,400	\$8,400
4-inch	\$14,00	\$14,00	\$14,00
6-inch or larger	\$28,00	\$28,00	\$28,00

III. Well No. 9

Because bacteria test results showed positive in Well No. 9 during the test year, the Company has disconnected this well from the rest of its system. Staff therefore considers this well and the associated well pump not "used and useful" for utility purposes during the test year and recommends that the appropriate adjustments be made to the Company's test year rate base. According to the well drilling log report in ADWR's database, the cost of drilling this well was \$4,900 in 1962. Staff estimates that the cost of the 3-HP pump was \$322 in 1962.

EXHIBIT 2.

LOCATION OF MT. TIPTON WATER COMPANY



- | | | | |
|------|-----------------------------------|------|--------------------------------------|
| 1303 | ARIZONA-AMERICAN WATER COMPANY | 2023 | JOSHUA VALLEY UTILITY COMPANY |
| 3067 | BEAVER DAM WATER COMPANY, INC. | 1751 | KATHERINE RESORT WATER COMPANY |
| 1812 | BERMUDA WATER COMPANY, INC. | 1825 | LAGOON ESTATES WATER COMPANY, INC. |
| 2812 | BIASI WATER COMPANY, INC. | 2560 | LAKE JUNIPER WATER COMPANY, INC. |
| 2391 | CERBAT WATER COMPANY | 2298 | LITTLEFIELD WATER COMPANY |
| 2821 | DOUBLE R WATER DISTRIBUTORS, INC. | 2513 | MESQUITE FARMSTEAD WATER ASSOCIATION |
| 2524 | FORT MOHAVE INDIAN TRIBE | 2105 | MT. TIPTON WATER COMPANY, INC. |
| 1815 | GOLDEN SHORES WATER COMPANY, INC. | 2259 | NORTH MOHAVE VALLEY CORPORATION |
| 1969 | HATCH VALLEY WATER COMPANY | 4069 | OATMAN WATER COMPANY, LLC |
| 2054 | HO-TYE WATER COMPANY | 3499 | STIRLING WATER COMPANY |
| | | 3586 | SUNRISE VISTAS UTILITIES COMPANY |
| | | 1798 | SUNSET WATER COMPANY |
| | | 2168 | TRUXTON CANYON WATER COMPANY, INC. |
| | | 2033 | VALLEY PIONEER'S WATER COMPANY, INC. |
| | | 3551 | VIRGIN MOUNTAIN UTILITIES COMPANY |
| | | 2466 | WALNUT CREEK WATER COMPANY, INC. |
| | | 1982 | WHITE HILLS WATER COMPANY, INC. |
| | | 1732 | WILLOW VALLEY WATER COMPANY, INC. |
| | | 1937 | YUCCA WATER ASSOCIATION, INC. |

EXHIBIT 3A.
SYSTEMATIC DRAWING

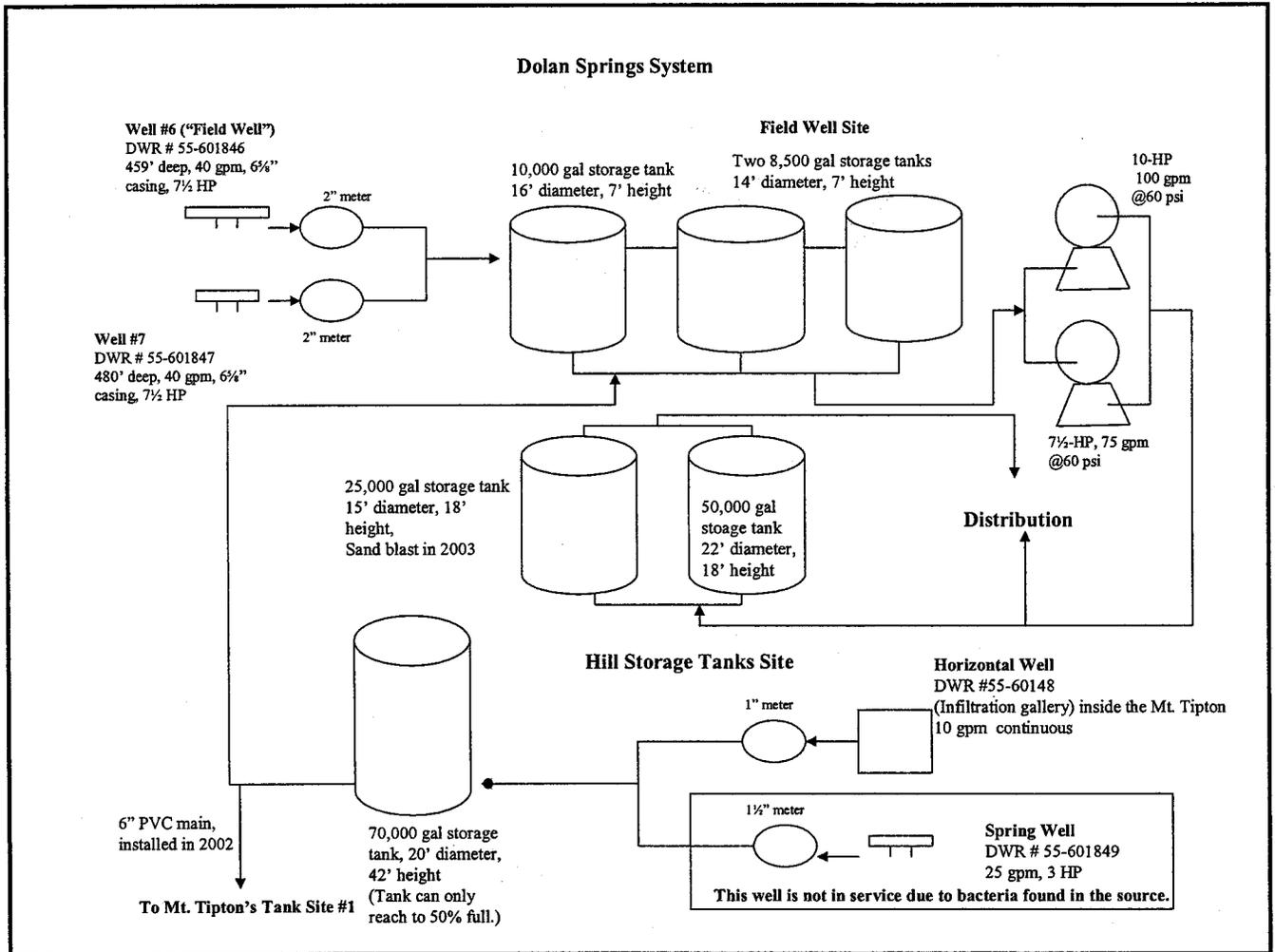


EXHIBIT 3B.
SYSTEMATIC DRAWING

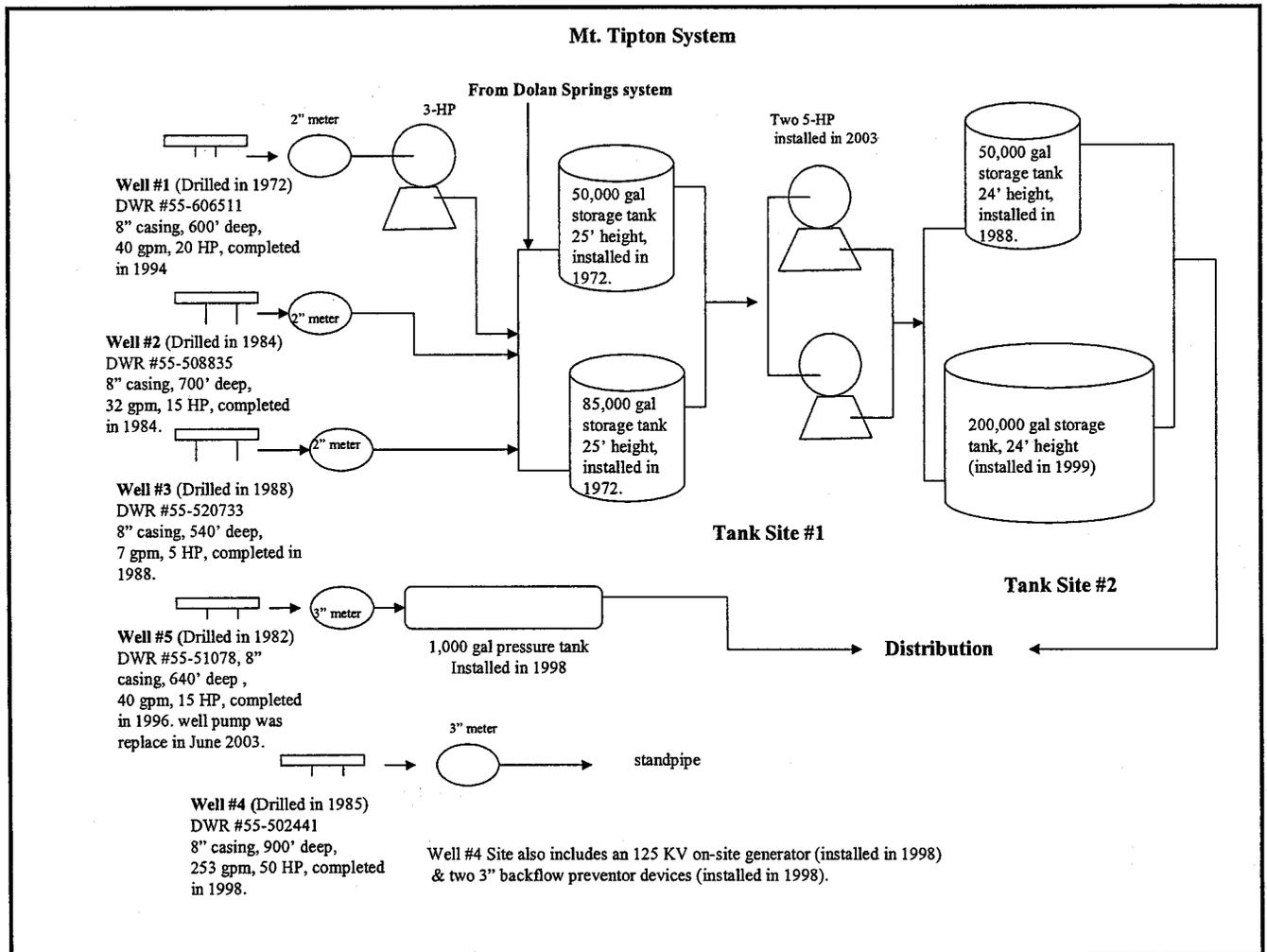


EXHIBIT 4

WATER USAGE IN THE MT. TIPTON WATER SERVICE AREA

Mt. Tipton Water Co. Water Usage During Year 2002

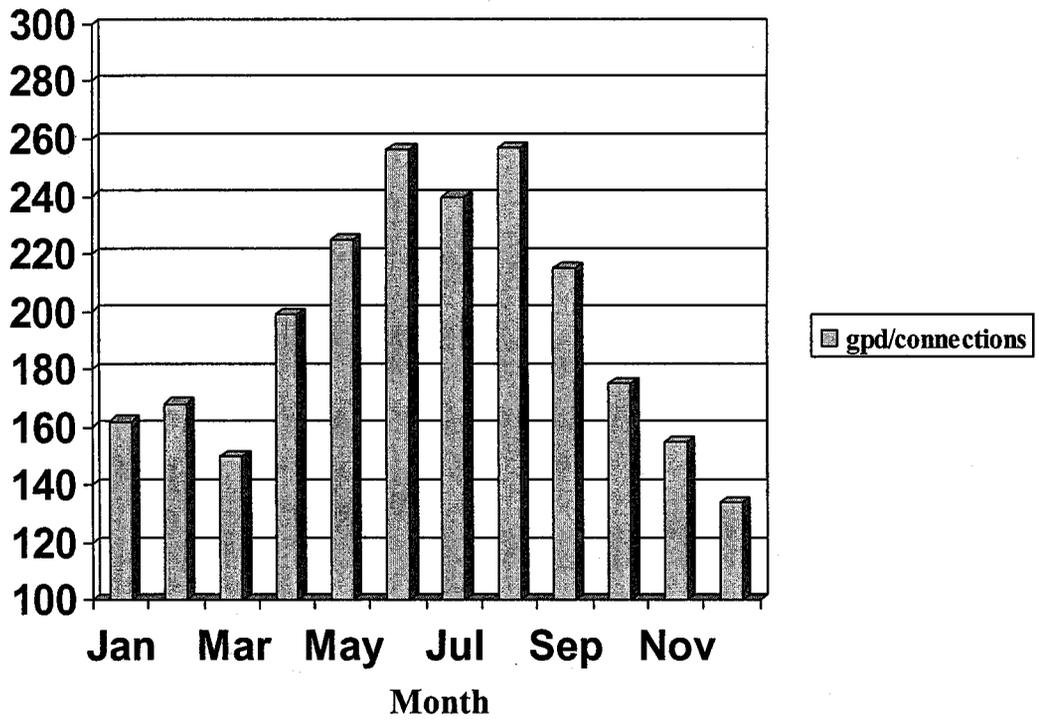


EXHIBIT 5

ACTUAL AND PROJECTED GROWTH IN MT. TIPTON SERVICE AREA

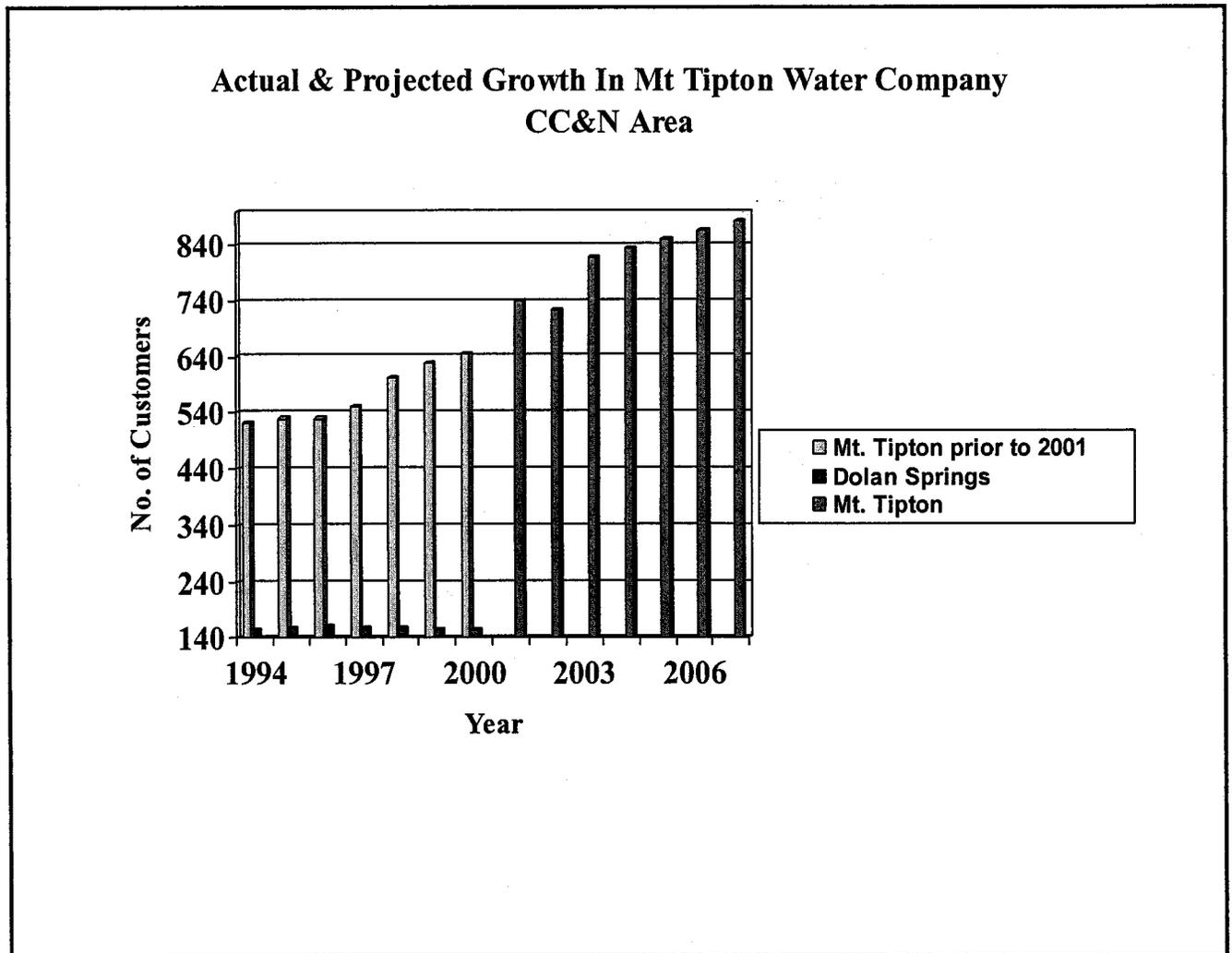


Exhibit 6

Water Depreciation Rates

Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	----	----