

ORIGINAL



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MEMORANDUM

TO: Docket Control Center

FROM: Thomas M. Broderick
Director
Utilities Division

DATE: August 20, 2015

RE: STAFF REPORT FOR TIERRA BUENA WATER COMPANY, INC.'S APPLICATIONS FOR AN INCREASE IN ITS RATES AND FOR AUTHORITY TO INCUR LONG-TERM DEBT (DOCKET NOS. W-02076A-15-0135 AND W-02076A-15-0024)

Attached is the Staff Report for Tierra Buena Water Company, Inc.'s applications for an increase in its rates and to incur long-term debt. Staff recommends approval of the rate application using Staff's recommended rates and charges. Staff recommends approval of the requested financing and the associated surcharge mechanism with conditions.

Any party who wishes may file comments to the Staff Report with the Commission's Docket Control by 4:00 p.m. on or before August 31, 2015.

TMB:CSB:nr\ML

Originator: Crystal Brown

Arizona Corporation Commission

DOCKETED

AUG 20 2015

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Docket Nos. W-02076A-15-0135 and W-02076A-15-0024

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**STAFF REPORT
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION**

**TIERRA BUENA WATER COMPANY, INC.
DOCKET NOS. W-02076A-15-0135 & W-02076A-15-0024**

**APPLICATIONS FOR A PERMANENT RATE INCREASE
AND FINANCING APPROVAL**

AUGUST 20, 2015

STAFF ACKNOWLEDGMENT

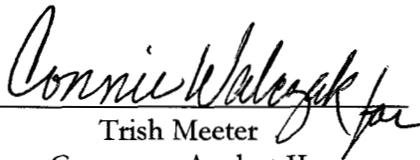
The Staff Report for Tierra Buena Water Company, Inc. ("Tierra Buena" or "Company") Docket Nos. W-02076A-15-0135 and W-02076A-15-0024, was the responsibility of the Staff members listed below. Crystal Brown was responsible for the review and analysis of the Company's applications for a permanent rate increase and financing approval. Dorothy Hains was responsible for the engineering and technical analysis. Trish Meeter was responsible for reviewing the Arizona Corporation Commission's records on the Company and reviewing customer complaints filed with the Commission.



Crystal Brown
Executive Consultant III



Dorothy Hains, P.E.
Utilities Engineer



Trish Meeter
Consumer Analyst II

EXECUTIVE SUMMARY
TIERRA BUENA WATER COMPANY, INC.
DOCKET NOS. W-02076A-15-0135 AND W-02076A-15-0024

On January 29, 2015, Tierra Buena Water Company, Inc. ("Tierra Buena" or "Company") filed an application with the Arizona Corporation Commission ("Commission") for authority to incur long-term debt from the Water Infrastructure Finance Authority of Arizona ("WIFA"). On April 24, 2015, Tierra Buena also filed an application for a permanent rate increase. On July 8, 2015, the two applications were consolidated by Procedural Order.

Tierra Buena is a class E for-profit Arizona public service corporation that provides potable water service to approximately 127 customers. The Company's service area is located in a non-incorporated community, north of the Town of Litchfield Park and west of the City of Glendale in Maricopa County.

Tierra Buena proposed a \$30,093 or a 33.92 percent revenue increase from test year revenue of \$88,730 to \$118,823. The proposed revenue increase would produce an operating income of \$23,765 for a 20.00 percent operating margin. The Company's proposed original cost rate base ("OCRB") is a negative \$257,187. The Company's proposed rates would increase the typical residential bill with a median usage of 18,322 gallons from \$48.14 to \$72.63, for an increase of \$24.48, or 50.8 percent.

The Company's finance application requested approval of an \$899,506 loan to address problems of adequate source capacity and an exceedance of the arsenic maximum contaminate level in its source water. The Company did not include a request for a WIFA loan surcharge.

Staff recommends a revenue increase of \$11,191 or 12.61 percent over the test year revenue of \$88,730 to \$99,921 as shown on CSB-1, Pages 1 and 2. Staff's recommended base rates revenue increase would produce an operating income of \$10,000, for a 10.01 percent operating margin. Staff's recommended original OCRB is a negative \$247,244. In addition, Staff is recommending a WIFA loan surcharge that would generate estimated revenue of \$87,928, for total revenue of approximately \$187,849, as shown on Schedules CSB-1 and CSB-7. The base rates revenue is intended to support all operations. The debt service of the loan (i.e., principal and interest payments) will be made with revenues generated from the WIFA loan surcharge.

Staff's recommended rates (excluding the WIFA loan surcharge) would increase the typical residential bill with a median usage of 18,322 gallons from \$48.14 to \$51.14, for an increase of \$3.00, or 6.2 percent as shown on Schedule CSB-5. Once the WIFA loan surcharge is implemented, the typical 1-inch meter residential bill of \$51.14 would increase by the amount of the surcharge, \$57.70, to \$108.84. The combined base rate and surcharge revenue components would increase the typical 1-inch meter residential bill with a median usage of 18,322 gallons from \$51.14 to \$108.84, an increase of \$60.70, or 126.1 percent as shown on Schedule CSB-5.

Staff recommends:

1. The Commission approve the Staff-recommended rates and charges as shown on Schedule CSB-4.
2. The Company file with Docket Control, as a compliance item in this Docket, a schedule of its approved rates and charges within 30 days after the Decision in this matter is issued.
3. The Commission approve the Company's application for authorization to issue long-term debt to WIFA in an amount not to exceed \$899,506 subject to the following conditions:
 - a. If the Company concludes that the interconnection and well rehabilitation (Project Nos. 1 and 2) can resolve the arsenic problem, then the \$666,912 cost of the arsenic treatment facility (Project No. 3) would be **excluded** from this financing application recommendation. Staff's recommended loan amount would be \$232,594, which is the total cost of the interconnection and well rehabilitation.
 - b. However, if the interconnection and well rehabilitation do not resolve the arsenic issue, then the \$666,912 cost of the arsenic treatment facility will be included in this financing application and Staff's recommended loan amount would be \$899,506.
4. The Commission approve the associated surcharge mechanism that may result in a surcharge of up to \$57.70 per month per customer.
5. That the actual amount of the WIFA loan surcharges be calculated based upon the actual terms of the WIFA loan and actual number of customers at the time of loan closing.
6. The Company file as a compliance item in this Docket, within 30 days of the execution of any financing transaction authorization herein, a notice confirming that such execution has occurred and a certification by an authorized Company representative that the terms of the financing fully comply with the authorizations granted.
7. The Company provide to Staff, upon request, a copy of any loan documents executed pursuant to the authorizations granted herein.
8. Upon filing of the loan closing notice, the Company may file in this Docket an application requesting implementation of the associated surcharge.
9. Within 30 days of the filing of a surcharge implementation request, Staff shall calculate the appropriate WIFA surcharge and prepare and file a recommended order for Commission consideration.
10. Approval of the loan and surcharge be rescinded if the Company has not drawn funds from the loan within two years of the date of the Decision resulting from this proceeding.
11. Upon approval of the WIFA surcharge, the Company shall open a separate interest-bearing account in which all surcharge monies collected from customers will be deposited.
12. The only disbursement of funds from this account will be to make debt service and WIFA reserve payments to WIFA.

13. The Company shall file, by April 15 of each year, as a compliance item in this Docket, a report reconciling all surcharge monies billed and collected, along with copies of the prior year's monthly bank statements for the surcharge account until it files its next rate case.
14. The Company be ordered to file a rate application no later than five years from the effective date of the decision resulting from this matter.
15. Authorize the depreciation rates by individual National Association of Regulatory Utility Commissioners ("NARUC") category, as delineated in Figure 5. (See §J and Figure 5 for a discussion and a tabulation of the recommended rates in the attached Engineering Report.)
16. Tierra Buena file with Docket Control, as a compliance item in this docket within 90 days of the effective date of a decision in this proceeding, at least three (3) Best Management Practices ("BMP") Tariffs in the form of tariffs that substantially conform to the templates created by Staff. The templates created by Staff are available on the Commission's website at <http://www.azcc.gov/Divisions/Utilities/forms.asp> . A maximum of two BMPs may come from the "Public Awareness/Public Relations" or "Education and Training" categories. The Company may request cost recovery of the actual costs associated with the BMPs implemented in its next general rate application. (See §K for discussion and details in the attached Engineering Report.)
17. Tierra Buena test the arsenic level after Well No. 2, well rehabilitation is completed. Staff further recommends that the Company submit the arsenic test result from the rehabilitated Well No. 2 to Docket Control in this docket. Staff further recommends that the Company file a letter with Docket Control in this docket by December 31, 2016, stating whether it believes an arsenic treatment facility is still needed. Staff further recommends that the Company file with Docket Control, as a compliance item in this docket, by December 31, 2016, a copy of the Maricopa County of Environmental Services Department ("MCESD") Approval of Construction ("AOC") for the capital improvements to be financed as discussed in the Section of Financing. (See §K of report for discussion and details in the attached Engineering Report.)
18. The \$394 which was listed in water testing cost be moved to NARUC Account No. 320.1 (Water Treatment Plants) when the arsenic treatment plant becomes used and useful. (See §I of report for discussion and details in the attached Engineering Report.)
19. Approval of the meter and service line installation charges listed under the columns labeled "Staff Recommendation" in Table 6. (See §K of report for discussion and details in the attached Engineering Report.)

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Attachment

Engineering Report.....	Attachment A
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FACT SHEET

Current Rates: Decision No. 55423 dated February 12, 1987.

Type of Ownership: C-Corporation

Location: The Tierra Buena System is located in a non-incorporated community, north of the Town of Litchfield Park and west of the City of Glendale in Maricopa County.

Financing Application Docketed: January 29, 2015

Rate Application Docketed: April 24, 2015

Current Test year Ended: December 31, 2014

Rates

	<u>Current Rates</u>	<u>Company Proposed Rates</u>	<u>Staff Recommended Rates</u>
Monthly Minimum Charges:			
5/8 x 3/4-inch meter	\$9.00	\$11.50	\$7.60
3/4-inch meter	\$10.50	\$17.25	\$11.40
1-inch meter	\$13.50	\$28.75	\$19.00
1 1/2-inch meter	\$21.00	\$57.50	\$38.00
2-inch meter	\$30.50	\$92.00	\$60.80
3-inch meter	N/A	\$184.00	\$121.60
4-inch meter	N/A	\$287.50	\$190.00
6-inch meter	N/A	\$575.00	\$380.00
Gallons In Minimum WIFA Surcharge	1,000 N/A	0 N/A	0 \$57.70
1-inch Residential Customer Commodity Charges:			
Per 1,000 gallons:	\$2.00	N/A	N/A
	N/A	\$1.65	\$1.50
From 1 to 9,000 Gallons	N/A	\$2.15	\$2.00
From 9,001 to 22,500 Gallons	N/A	\$2.65	\$2.52
Over 22,500 Gallons			

Customers:

Number of customers in prior test year (12/31/14): 127

Average number of customers in the current test year (12/31/14): 127

Current Test Year customers by meter size:

5/8 X 3/4-inch	0
3/4-inch	0
1-inch	127
1 1/2-inch	0
2-inch	0
4-inch	0
6-inch	0

Seasonal customers: 0

Customer notification: for financing application on February 10, 2015 and for rate application on May 29, 2015.

Customer Complaints Concerning Rate Application: 0

	<u>Present</u>	<u>Company Proposed</u>	<u>Staff Recommended</u>
<u>Typical Residential Bill Analysis (Without Surcharge)</u> Based on median usage of 18,322 gallons	\$48.14	\$72.63	\$51.14
<u>Typical Residential Bill Analysis (With Surcharge)</u> Based on median usage of 18,322 gallons	\$48.14	\$72.63	\$108.84

SUMMARY OF RATE FILING

Tierra Buena's proposed rates, as filed, would produce total operating revenue of \$118,823 and operating income of \$23,765, for a 20.00 percent operating margin. The Company's proposed original cost rate base ("OCRB") is a negative \$257,187. The Company's proposed rates would increase the typical residential bill with a median usage of 18,322 gallons from \$48.14 to \$72.63, for an increase of \$24.48, or 50.8 percent.

The test year results as adjusted by Utilities Division Staff ("Staff"), for Tierra Buena Water Company, Inc. ("Tierra Buena" or "Company") show total operating revenue of \$88,730, operating income of \$1,135, for a 1.28 percent operating margin. Staff's recommended OCRB is a negative \$247,244 as shown on Schedule CSB-1.

Staff recommends total base rates revenue of \$99,921, as shown on Schedule CSB-1, Pages 1 and 2 and CSB-7. Staff's recommendation is an increase of \$11,191, or 12.61 percent over the test year revenue of \$88,730. Staff's recommended base rates revenue increase would produce an operating income of \$10,000 for a 10.01 percent operating margin. Staff's recommended OCRB is a negative \$247,244. In addition, Staff is recommending a Water Infrastructure Financing Authority ("WIFA") loan surcharge that would generate estimated revenue of \$87,928, for total revenue of approximately \$187,849, as shown on Schedule CSB-1. The base rates revenue is intended to support all operations. The debt service of the loan (i.e., principal and interest payments) will be made with revenues generated from the WIFA loan surcharge.

Staff's recommended base rates (excluding the WIFA loan surcharge) would increase the typical residential bill with a median usage of 18,322 gallons from \$48.14 to \$51.14, for an increase of \$3.00, or 6.2 percent, as shown on Schedule CSB-5. Once the WIFA loan surcharge is implemented, the typical 1-inch meter residential bill of \$51.14 would increase by the amount of the surcharge, \$57.70, to \$108.84. The combined base rate and surcharge revenue components would increase the typical 1-inch meter residential bill with a median usage of 18,322 gallons from \$50.54 to \$108.24, an increase of \$60.70, or 126.1 percent as shown on Schedule CSB-5.

According to the application, the Company requests a rate increase due to increases in the cost of operations and to service the proposed long-term debt.

BACKGROUND

On January 29, 2015, Tierra Buena filed an application with the Arizona Corporation Commission ("Commission") for financing approval and on April 24, 2015, filed an application for a permanent rate increase. On May 20, 2015, Staff filed a Letter of Deficiency for Tierra Buena's rate application. On June 19, 2015, the rate application was deemed sufficient. On July 8, 2015, the two applications were consolidated by Procedural Order.

Tierra Buena is a Class E utility located in Maricopa County, Arizona. The Company was granted its Certificate of Convenience and Necessity ("CC&N") in Decision No. 40021, dated May 20, 1969. The Company's current rates and charges were authorized in Decision No. 55423, dated February 12, 1987.

During the test year ended December 31, 2014, Tierra Buena provided water service to 127 metered customers.

CONSUMER SERVICES

Staff reviewed the Commission's records for the period beginning January 1, 2010 to June 29, 2015 and found no complaints; and one opinion opposing the rate increase. A notarized affidavit of mailing for the financing application was filed on February 17, 2015. A notarized affidavit of mailing for the rate case was filed on June 2, 2015.

COMPLIANCE

A check of the Utilities Division Compliance Section Database indicates that there are currently no delinquencies for Tierra Buena as of June 26, 2015.

ENGINEERING ANALYSIS AND RECOMMENDATIONS

An inspection of the Company's water system was conducted by Ms. Dorothy Hains, Staff Engineer, accompanied by Company Representative, Mr. Bob Prince (Owner and Operator) on May 11, 2015. A complete discussion of Staff's technical findings and recommendations and a complete description of the water system are provided in the attached Engineering Report.

RECORD KEEPING - PLANT RETIREMENTS

In the Company's last rate case (Decision No. 55423, dated February 12, 1987), the Commission required the Company to begin keeping its books and records in accordance with the 1984 National Association of Regulatory Utility Commissioners ("NARUC") Uniform System of Accounts ("USOA") for Class C Water Utilities. Page 17, line 26, of Decision No. 55423 states:

Therefore, we will specifically order Tierra Buena to **maintain its records in accordance with the 1984 NARUC Uniform System of Accounts for Class C Water Utilities**. In the event that Tierra Buena files another application for an increase in rates, Staff will review Tierra Buena's records to ascertain whether they are in substantial compliance with the Uniform System of Accounts. If they are not, the application should be rejected. (Emphasis added).

Staff reviewed Tierra Buena's records and found that they were in substantial compliance with the 1996 publication of the NARUC USOA (which supersedes the 1984 publication).

However, Staff is concerned that the Company may not always record its plant retirements as required by the NARUC USOA. Accounting Instruction No. 5, Paragraph D, states in part:

When an item of plant is retired, account 108 – Accumulated Depreciation and Amortization of Utility Plant in Service, shall be charged and **the appropriate plant accounts shall be credited with the entire recorded original cost of plant** retired regardless of the amounts of depreciation which has been accumulated for this particular item of plant . . . (Emphasis added)

Staff notes that the Company only recorded one retirement from 1986 (the test year in the Company's last rate case) to 2014 (the test year in the instant rate case); a period of approximately 27 years. There are several types of plant assets that would have reached the end of their useful lives during this 27 year period. For example, pumps have an 8 year useful life, meters have a 12 year useful life, and office furniture and equipment have a 15 year useful life. Staff did not make any adjustment concerning this issue due to time constraints concerning the processing of this rate application. Further, the Company has a large negative rate base and, therefore, the adjustment would have no impact on rates in the instant case.

Staff recommends that the Company be put on notice, that it should appropriately record all plant transactions including retirements following NARUC guidelines. If the Company fails to do so, Staff will recommend sanctions in the next rate case.

RATE BASE

The Company did not propose a fair value rate base that differs from its original cost rate base. Staff's adjustments increased the Company's proposed rate base by \$9,943, from a negative \$257,187 to a negative \$247,244 due to the addition of an allowance for working capital as discussed below.

Plant

Adjustment A reclassifies \$2,106 from Account No. 348, Other Tangible Plant to Account No. 304 Structures and Improvements, as discussed in greater detail in the attached Engineering Report.

Working Capital

Tierra Buena did not claim any working capital allowance. Staff's adjustments B and C resulted in a net increase to working capital of \$9,441, from \$0 to \$9,441, as shown on Schedule CSB-2, pages 1 and 4.

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

OPERATING INCOME STATEMENT

Operating Revenue

Staff tested and accepted the Company's total operating revenue of \$88,730.

Operating Expenses

Staff's adjustments to operating expenses resulted in a net decrease of \$1,208, from \$88,803 to \$87,595, as shown on Schedule CSB-3, page 1. Details of Staff's adjustments are presented below.

Water Testing – Adjustment A decreases water testing expense by \$1,504, from \$2,928 to \$1,424, as shown on Schedule CSB-3, pages 1 and 2 to reflect Staff's calculation of water testing expense.

Income Tax Expense – Adjustment B increases test year income tax expense by \$296, from a negative \$18 to \$278, to reflect Staff's calculation of the income tax obligation on Staff's adjusted test year taxable income, as shown on Schedule CSB-3, page 1. Staff's calculation is shown on Schedule CSB-1 page 3.

REVENUE REQUIREMENT

Staff recommends total base rates revenue of \$99,921, as shown on Schedule CSB-1, page 2, Column B, line 10. Staff's recommendation is an increase of \$11,191 or 12.61 percent over the test year revenue of \$88,730. Staff's recommended base rates revenue increase would produce an operating income of \$10,000 for a 10.01 percent operating margin. Staff's recommended OCRB is a negative \$247,244. Staff's recommended rates and surcharges yield a cash flow of \$14,717 after payment of the debt service on the \$899,506 loan, as shown on Schedule CSB-1, Page 1 and CSB-7, line 46.

Staff's total revenue requirement of \$99,921, including estimated surcharges, provides the Company with sufficient cash flow to pay operating expenses, contingencies, principal and interest on its proposed \$899,506 loan, and to meet the minimum 1.2 debt service coverage ("DSC") ratio required by WIFA. Cash flow needs and DSC requirements determined the revenue requirement.

RATE DESIGN

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

Staff utilized the NARUC Multiplier to design rates for the monthly minimum charges for the various meter sizes. All of Tierra Buena's customers are on 1-inch meters. This means that all of the revenue generated from the monthly minimum comes from 1-inch customers. Since Staff's

revenue requirement was set using a \$19.00 monthly minimum charge for 1-inch customers, all of the monthly minimum charges for the other meter sizes were set relative to the 1-inch meter. Because the minimum charge for the 1-inch meter is calculated by multiplying the monthly minimum charge for the 5/8 x 3/4 inch meter by the NARUC Multiplier of 2.5, Staff had to decrease the minimum charge for the 5/8 x 3/4 inch meter such that when it is multiplied by the 2.5 NARUC Multiplier it would equal Staff's recommended \$19.00 monthly minimum for the 1-inch customer.

The Company's proposed rates would increase the typical residential bill, for customers with a 1" meter and a median usage of 18,322 gallons, from \$48.14 to \$72.63 for an increase of \$24.48, or 50.8 percent as shown on Schedule CSB-5.

Under the Company's current rates, 23.50 percent of the revenue is collected from the monthly minimum charge and 76.50 percent from the commodity. Staff typically designs rates with a goal of gradually increasing or decreasing the amount of revenue that is generated from the minimum and commodity charges such that, over time, approximately 30 to 40 percent is collected from the monthly minimum charge and the remaining is collected from the commodity charge. This approach allows captive customers to gain greater control over the amount they will pay for their water bills while providing the company a level of revenue stability sufficient to cover fixed costs.

Tierra Buena has requested approval of an \$899,506 WIFA loan and Staff has recommended approval. The monthly debt service on the loan is approximately \$5,672. In order to help ensure that the Company has sufficient cash during months when water usage is low, Staff has included more of the increase in the monthly customer charge to help provide the revenue stability needed for the payment of the Company's proposed loan. Under Staff's recommended rates, approximately 30 percent of the revenue is generated from the monthly customer charge and 70 percent from the commodity charge.

Staff's recommended rates (excluding the WIFA loan surcharge) would increase the typical residential bill with a median usage of 18,322 gallons from \$48.14 to \$51.14, for an increase of \$3.00, or 6.2 percent as shown on Schedule CSB-5. Once the WIFA loan surcharge is implemented, the typical 1-inch meter residential bill of \$51.14 would increase by the amount of the surcharge, \$57.70, to \$108.84. The combined base rate and surcharge revenue components would increase the typical 1-inch meter residential bill with a median usage of 18,322 gallons from \$51.14 to \$108.84, an increase of \$60.70, or 126.1 percent as shown on Schedule CSB-5.

MISCELLANEOUS SERVICE CHARGES

Establishment Charge - The Company proposes to increase the establishment service charge from \$30 to \$40. Staff concurs and recommends approval.

Establishment Charge (After Hours) - The Company proposes to decrease the establishment service charge (after hours) from \$45 to \$40. Staff recommends elimination of the Company's current Establishment (After Hours) charge. Instead of this charge, Staff recommends the creation of a separate \$35 after-hours service charge to be applied to any service performed after hours at the customer's request and/or for the customer's convenience.

Reconnection (Delinquent) Charge - The Company proposes to increase the reconnection (delinquent) service charge from \$25 to \$40. Staff recommends the Reconnection (Delinquent) Charge be in alignment with and not exceed the Establishment Charge. The Establishment Charge requires additional work when opening a new service, whereas the Reconnection (Delinquent) Charge does not because it is a deterrent for disconnection. Therefore, since less work is performed for the Reconnection (Delinquent) Charge than for the Establishment Charge, the Reconnection (Delinquent) Charge should be correspondingly less. Therefore, Staff recommends \$30.00 as it is more reasonable.

Reconnection (Delinquent and After Hours) Charge - The Company is proposing to add a new reconnection (delinquent and after hours) service charge of \$40. Staff recommends the Company's request be denied. Instead of this charge, Staff recommends the creation of a separate \$35 after-hours service charge to be applied to any service performed after hours at the customer's request and/or for the customer's convenience.

Meter Test Charge - The Company proposes to increase the meter test service charge from \$25 to \$30. Staff was advised by Company that the charge for meter testing was rarely imposed; therefore Staff recommends the Meter Test Charge remain at \$25.00.

Re-Establishment Charge (Within 12 Months and After Hours) - The Company is proposing to add a new re-establishment service charge (within 12 months and after hours) which is calculated using the number of months off the system times the monthly minimum in accordance to R14-2-403.D. Staff recommends denial of the Company proposed Re-Establishment Charge (Within 12 Months and After Hours). Instead of this charge, Staff recommends the creation of a separate \$35 after-hours service charge to be applied to any service performed after hours at the customer's request and/or for the customer's convenience. The Company has a current Re-Establishment charge (number of months off the system times the monthly minimum) which the Company proposes and Staff recommends to continue.

NSF Check Charge - The Company proposes to increase the NSF check charge from \$10 to \$30. According to the Company, the bank charges \$12.00 for an NSF check. The labor for the handling of an NSF charge is included in the operating expenses. Therefore, Staff recommends an NSF charge of \$20.00 which is within the range of NSF charges of similar companies and will allow Tierra Buena to cover the administrative costs associated with an NSF.

Meter Re-read - The Company proposes to increase the meter re-read charge from \$15 to \$30. Staff recommends a charge of \$25.00 so as not to exceed the charges for similar work requiring a field visit.

Late Payment Penalty Charge - The Company is proposing to add a new late payment penalty charge of \$10. The Company was asked to support its proposed late payment penalty charge. In response, the Company supported the request with the number of customers who continually pay late. Other utilities that have applied for this type of increase in a rate case have been asked and have provided the number of customers that are typically delinquent in paying their

bills. In some circumstances, if this is problematic, a flat rate amount is recommended. Staff agrees that a flat rate late payment penalty would be a deterrent. Staff recommends approval of a late payment penalty charge of \$10.00 as an aid in deterring late payments.

Deposit – The Company proposes to change the current deposit from \$24.00 to 2 times average bill. Staff recommends R14-2-403B.

After Hours Service Charge – Staff recommends adding a new \$35 after hours charge. An additional fee for service provided after normal business hours is appropriate when such service is at the customer's request or for the customer's convenience. Such a tariff compensates the utility for additional expenses incurred from providing after-hours service.

Moreover, it is appropriate to apply an after-hours service charge in addition to the charge for any utility service provided after hours at the customer's request or for the customer's convenience. For example, under Staff's proposal, a customer would be subject to a \$40 Establishment fee if it is done during normal business hours, but would pay an additional \$35 after-hours fee if the customer requested that the establishment be done after normal business hours.

SERVICE LINE AND METER INSTALLATION CHARGES

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

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

FINANCING APPLICATION AND SURCHARGE MECHANISM

Purpose and Terms of the Proposed Financing

According to the application, the purpose of the \$899,506 loan is to address problems of adequate source capacity and an exceedance of the arsenic maximum contaminate level ("MCL") in the Company's source water. Staff examined the construction plans and estimated costs for Tierra Buena's project and found it to be reasonable and appropriate. A complete discussion of Staff's findings and recommendations concerning the financing application can be found in the attached Engineering Report.

As discussed in greater detail in the attached engineering report, the financing is composed of three projects totaling \$899,506.

Project	Description	Cost
No. 1	Metered Inter-connection with Valley Utilities	\$ 55,115
No. 2	Well No. 2 Rehabilitation	\$177,479
	Subtotal	\$232,594
No. 3	Arsenic Treatment Facility	\$666,912
	Total	\$899,506

If the Company concludes that the interconnection and well rehabilitation (Project Nos. 1 and 2) can resolve the arsenic problem, then the \$666,912 cost of the arsenic treatment facility (Project No. 3) would be excluded from this financing application recommendation. Staff's recommended loan amount would be \$232,594 which is the total cost of the interconnection and well rehabilitation. However, if the interconnection and well rehabilitation do not resolve the arsenic issue, the \$666,912 cost of the arsenic treatment facility will be included in this financing application and Staff's recommended loan amount would be \$899,506.

The proposed \$899,506 financing is a 20-year amortizing loan with an anticipated 4.46 percent interest rate. The payments are estimated to be \$5,672.53 per month, or 68,070.33 annually, as shown on Schedule CSB-6, page 2. Because the final details of the WIFA loan will not be known until after the Company has closed on the loan; Staff is recommending a surcharge mechanism.

Surcharge Mechanism

Schedule CSB-7 (page 1, lines 11 and 46) presents a calculation of the additional annual revenue needed by the Company to service an \$899,506 loan over 20 years at 4.46 percent interest rate for the loan. Based on Staff's calculation, \$899,506 of WIFA debt will require the Company to generate an annual cash flow of \$87,928 through the surcharge. Staff's calculation shows that a residential customer on a 1-inch meter will be required to pay a monthly surcharge of \$57.70 on a \$899,506 loan, \$42.57 on a \$666,912 loan and \$14.32 on a \$232,594 loan.

The surcharge mechanism establishes the methodology for calculating the surcharge amounts to be applied to the rates established in this rate application. Once the Company has closed on the loan, it would submit an application in this Docket requesting implementation of the surcharge. Staff would then calculate the appropriate surcharge and prepare and file a recommended order for Commission consideration.

WIFA Loan Debt Reserve

Staff has included a provision for the loan reserve fund in the WIFA loan surcharge that customers will pay as shown on Schedule 6, Step 8. The loan reserve fund is a fund that the Company pays into for five years. After the five years, the balance will equal one year of principal and interest payments for the loan. When the reserve fund is included in the WIFA loan surcharge, as Staff has done, ratepayers will effectively "prepay" \$13,614.07 in funding that the utility will eventually use either to make loan payments, to pay for future maintenance, or this balance will be

refunded to the Company. Ratepayers should be given credit for making these prepayments. Therefore, Staff recommends the following:

1. That the Company be directed to record the customer-provided WIFA reserve funding in NARUC Account No. 253, "Other Deferred Credits" as soon as it begins collecting revenue from the surcharge. That the deferred credit be clearly noted as "Customer Provided Funding for WIFA Reserve Fund" on the Company's books and records, and that the net balance in this account continue to be shown as a regulatory liability until the balance is fully amortized or otherwise credited back to ratepayers.
2. That the deferred credit balance be recognized as a reduction to the Company's rate base in future rate change filings and that the deferred credit balance will only be used to reduce the rate base to the extent that it does not result in a negative rate base amount.
3. That the amortization of the deferred credit begins once the plant is placed in service, that the deferred credit would be amortized for five years, and that the amortization expense would be used to offset depreciation expense.

Interest and Debt Service Coverage

Staff also examined the effects of the proposed financing on the Company's TIER and DSC.

DSC represents the number of times internally generated cash (i.e., earnings before interest, income tax, depreciation and amortization expenses) covers required principle and interest payments on debt. A DSC greater than 1.0 means operating cash flow is sufficient to cover debt obligations.

TIER represents the number of times earnings before income tax expense covers interest expense on debt. A TIER greater than 1.0 means that operating income is greater than interest expense. A TIER less than 1.0 is not sustainable in the long term but does not necessarily mean that debt obligations cannot be met in the short term.

Under Staff's recommended rates, fully drawing the Staff recommended \$899,506 loan, Tierra Buena's after tax TIER and DSC are 2.32 and 1.42, respectively. The pro forma DSC and TIER shows that Tierra Buena has adequate cash flow to meet all obligations on the Staff recommended loan and meets the WIFA 1.2 after tax DSC ratio requirement.

CONCLUSION

Staff concludes that the proposed capital improvement plants for Project 1 (interconnection), Project 2 (Well No. 2 rehabilitation), and Project 3 (Arsenic Treatment Facility) listed in Table 5 are appropriate and the cost estimates are reasonable. However, no "used and useful" determination of the proposed project item was made and no particular treatment should be inferred for rate making or rate base purpose in the future. (See §K of report for discussion and details.)

Tierra Buena does not have adequate production and storage capacities to support its existing customer base and reasonable growth. (See §C of the attached Engineering report for discussion and details.)

Staff concludes that that Tierra Buena would have adequate cash flow to meet all obligations on the proposed \$899,506 debt.

Staff concludes that the proposed financing is for lawful purposes, within Tierra Buena's powers as a corporation, compatible with the public interest, consistent with sound financial practices and will not impair its ability to provide public service.

Staff recommends approval of the Company's application for authorization to issue long-term debt to WIFA in an amount not to exceed \$899,506 subject to the following conditions:

- a. If the consultant concludes that the interconnection and well rehabilitation (Project Nos. 1 and 2) can resolve the arsenic problem, then the \$666,912 cost of the arsenic treatment facility (Project No. 3) would be **excluded** from this financing application. Staff's recommended loan amount would be \$232,594 which is the total cost of the interconnection and well rehabilitation.
- b. However, if the interconnection and well rehabilitation do not resolve the arsenic issue, then the \$666,912 cost of the arsenic treatment facility will be included in this financing application and Staff's recommended loan amount would be \$899,506.

STAFF'S RECOMMENDATIONS

Staff recommends:

1. The Commission approve the Staff-recommended rates and charges as shown on Schedule CSB-4.
2. The Company file with Docket Control, as a compliance item in this Docket, a schedule of its approved rates and charges within 30 days after the Decision in this matter is issued.
3. The Commission approve the Company's application for authorization to issue long-term debt to WIFA in an amount not to exceed \$899,506 subject to the following conditions:
 - a. If the Company concludes that the interconnection and well rehabilitation (Project Nos. 1 and 2) can resolve the arsenic problem, then the \$666,912 cost of the arsenic treatment facility (Project No. 3) would be **excluded** from this financing application recommendation. Staff's recommended loan amount would be \$232,594 which is the total cost of the interconnection and well rehabilitation.
 - b. However, if the interconnection and well rehabilitation do not resolve the arsenic issue, then the \$666,912 cost of the arsenic treatment facility will be included in this financing application and Staff's recommended loan amount would be \$899,506.

4. The Commission approve the associated surcharge mechanism that may result in a surcharge of up to \$57.70 per month per customer.
5. That the actual amount of the WIFA loan surcharges be calculated based upon the actual terms of the WIFA loan and actual number of customers at the time of loan closing.
6. The Company file as a compliance item in this Docket, within 30 days of the execution of any financing transaction authorization herein, a notice confirming that such execution has occurred and a certification by an authorized Company representative that the terms of the financing fully comply with the authorizations granted.
7. The Company provide to Staff, upon request, a copy of any loan documents executed pursuant to the authorizations granted herein.
8. Upon filing of the loan closing notice, the Company may file in this Docket an application requesting implementation of the associated surcharge.
9. Within 30 days of the filing of a surcharge implementation request, Staff shall calculate the appropriate WIFA surcharge and prepare and file a recommended order for Commission consideration.
10. Approval of the loan and surcharge be rescinded if the Company has not drawn funds from the loan within one year of the date of the Decision resulting from this proceeding.
11. Upon approval of the WIFA surcharge, the Company shall open a separate interest-bearing account in which all surcharge monies collected from customers will be deposited.
12. The only disbursement of funds from this account will be to make debt service and WIFA reserve payments to WIFA.
13. The Company shall file, by April 15 of each year, as a compliance item in this Docket, a report reconciling all surcharge monies billed and collected, along with copies of the prior year's monthly bank statements for the surcharge account until it files its next rate case.
14. The Company be ordered to file a rate application no later than five years from the effective date of the decision resulting from this matter.
15. Authorize the depreciation rates by individual National Association of Regulatory Utility Commissioners ("NARUC") category, as delineated in Figure 5. (See §J and Figure 5 for a discussion and a tabulation of the recommended rates in the attached Engineering Report.)
16. Tierra Buena file with Docket Control, as a compliance item in this docket within 90 days of the effective date of a decision in this proceeding, at least three (3) Best Management Practices ("BMP") Tariffs in the form of tariffs that substantially conform to the templates created by Staff. The templates created by Staff are available on the Commission's website

at <http://www.azcc.gov/Divisions/Utilities/forms.asp> . A maximum of two BMPs may come from the "Public Awareness/Public Relations" or "Education and Training" categories. The Company may request cost recovery of the actual costs associated with the BMPs implemented in its next general rate application. (See §K for discussion and details in the attached Engineering Report.)

17. Tierra Buena test the arsenic level after Well No. 2, well rehabilitation is completed. Staff further recommends that the Company submit the arsenic test result from the rehabilitated Well No. 2 to Docket Control in this docket. Staff further recommends that the Company file a letter with Docket Control in this docket by December 31, 2016, stating whether it believes an arsenic treatment facility is still needed. Staff further recommends that the Company file with Docket Control, as a compliance item in this docket, by December 31, 2016, a copy of the MCESD Approval of Construction ("AOC") for the capital improvements to be financed as discussed in the Section of Financing. (See §K of report for discussion and details in the attached Engineering Report.)
18. Staff recommends \$394 which was listed in water testing cost be moved to NARUC Account No. 320.1 (Water Treatment Plants) when the arsenic treatment plant becomes used and useful. (See §I of report for discussion and details in the attached Engineering Report.)
19. Staff recommends approval of the meter and service line installation charges listed under the columns labeled "Staff Recommendation" in Table 6. (See §K of report for discussion and details in the attached Engineering Report.)

SUMMARY OF FILING

	[A]	[B]	[C]	[D]	[E]
	-- Present Rates --		Company Proposed as Filed	Staff Recommended Without Surcharge on \$899,506 Loan	Staff Recommended With Surcharge on \$899,506 Loan
	Company as Filed	Staff as Adjusted			
Revenues:					
Metered Water Revenue	\$88,073	\$88,073	\$118,166	\$99,264	\$99,264
Unmetered Water Revenue	0	0	0	0	0
Other Water Revenues	657	657	657	657	657
Estimated Surcharge Revenue	0	0	0	0	87,928
Total Operating Revenue	\$88,730	\$88,730	\$118,823	\$99,921	\$187,849
Operating Expenses:					
Operation and Maintenance	\$77,034	\$75,530	\$ 77,034	\$75,530	\$75,530
Depreciation	4,717	4,717	3,991	4,717	4,717
Property & Other Taxes	7,070	7,070	8,213	7,225	7,225
Income Tax	(18)	278	5,821	2,449	8,693
Total Operating Expense	\$88,803	\$87,595	\$95,058	\$89,921	\$96,165
Operating Income/(Loss)	(\$73)	\$1,135	\$23,765	\$10,000	\$91,684
Rate Base O.C.L.D.	(\$257,187)	(\$247,244)	(\$257,187)	(\$247,244)	(\$257,187)
Rate of Return - O.C.L.D.**	Not Meaningful	Not Meaningful	Not Meaningful	Not Meaningful	Not Meaningful
Operating Margin**	-0.08%	1.28%	20.00%	10.01%	48.81%
Cash Flow - Before Debt Service	\$4,644	\$5,852	\$27,755	\$14,717	\$96,401
Less: Debt Service	\$0	\$0	\$0	\$0	(\$81,684)
Cash Flow - After Debt Service	\$4,644	\$5,852	\$27,755	\$14,717	\$14,717

* See Schedule CSB-7, Column C for the combined Staff recommended base rate and surcharge revenue.

**Staff amounts result from Staff's cash flow recommendation shown on CSB-7, Column C, Line 32.

REVENUE REQUIREMENT CALCULATION

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY ORIGINAL COST</u>	<u>[B] STAFF ORIGINAL COST</u>
1	Adjusted Rate Base	\$ (257,187)	\$ (247,244)
2	Adjusted Operating Income (Loss)	\$ (73)	\$ 1,135
3	Current Rate of Return (L2 / L1)	0.03%	Not Meaningful
4	Required Rate of Return	Not Applicable	Not Applicable
5	Required Operating Income (L4 * L1)	\$ 23,765	\$ 10,000
6	Operating Income Deficiency (L5 - L2)	\$ 23,838	\$ 8,865
7	Gross Revenue Conversion Factor	1.26240	1.26242
8	Increase In Gross Revenue (L7 * L6)	\$ 30,093	\$ 11,191
9	Adjusted Test Year Revenue	\$ 88,730	\$ 88,730
10	Proposed Annual Revenue (L8 + L9)	\$ 118,823	\$ 99,921
11	Required Increase in Revenue (%) (L8/L9)	33.92%	12.61%
12	Operating Margin	20.00%	10.01%

GROSS REVENUE CONVERSION FACTOR AND INCOME TAX CALCULATION FOR RECOMMENDED REVENUE

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
<u>Calculation of Gross Revenue Conversion Factor:</u>					
1	Revenue	100.0000%			
2	Uncollectible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	20.7873%			
5	Subtotal (L3 - L4)	79.2127%			
6	Revenue Conversion Factor (L1 / L5)	1.262424			
<u>Calculation of Uncollectible Factor:</u>					
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	19.6750%			
9	One Minus Combined Income Tax Rate (L7 - L8)	80.3250%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 * L10)	0.0000%			
<u>Calculation of Effective Tax Rate:</u>					
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	5.5000%			
14	Federal Taxable Income (L12 - L13)	94.5000%			
15	Applicable Federal Income Tax Rate (Line 53)	15.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	14.1750%			
17	Combined Federal and State Income Tax Rate (L13 +L16)		19.6750%		
<u>Calculation of Effective Property Tax Factor:</u>					
18	Unity	100.0000%			
19	Combined Federal and State Income Tax Rate (L17)	19.6750%			
20	One Minus Combined Income Tax Rate (L18-L19)	80.3250%			
21	Property Tax Factor	1.3848%			
22	Effective Property Tax Factor (L20*L21)		1.1123%		
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			20.7873%	
24	Required Operating Income	\$ 10,000			
25	Adjusted Test Year Operating Income (Loss)	1,135			
26	Required Increase in Operating Income (L24 - L25)		\$ 8,865		
27	Income Taxes on Recommended Revenue (Col. [C], L52)	\$ 2,449			
28	Income Taxes on Test Year Revenue (Col. [A], L52)	278			
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		2,171		
30	Recommended Revenue Requirement	\$ 99,921			
31	Uncollectible Rate (Line 10)	0.0000%			
32	Uncollectible Expense on Recommended Revenue (L30*L31)	\$ -			
33	Adjusted Test Year Uncollectible Expense	\$ -			
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32-L33)				
35	Property Tax with Recommended Revenue	\$ 3,729			
36	Property Tax on Test Year Revenue	3,574			
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		155		
38	Total Required Increase in Revenue (L26 + L29 + L34 + L37)		\$ 11,191		
<u>Calculation of Income Tax:</u>					
39	Revenue	\$ 88,730	\$ 11,191	\$ 99,921	
40	Operating Expenses Excluding Income Taxes	\$ 87,317	\$ 155	\$ 87,472	
41	Synchronized Interest (L56)	\$ -	\$ -	\$ -	
42	Arizona Taxable Income (L39 - L40 - L41)	\$ 1,413	\$ -	\$ 12,449	
43	Arizona State Income Tax Rate	5.5000%		5.5000%	
44	Arizona Income Tax (L42 x L43)	\$ 78	\$ -	\$ 685	
45	Federal Taxable Income (L42 - L44)	\$ 1,335	\$ -	\$ 11,765	
46	Federal Tax on First Income Bracket (\$1 - \$50,000) @ 15%	\$ 200	\$ -	\$ 1,765	
47	Federal Tax on Second Income Bracket (\$51,001 - \$75,000) @ 25%	\$ -	\$ -	\$ -	
48	Federal Tax on Third Income Bracket (\$75,001 - \$100,000) @ 34%	\$ -	\$ -	\$ -	
49	Federal Tax on Fourth Income Bracket (\$100,001 - \$335,000) @ 39%	\$ -	\$ -	\$ -	
50	Federal Tax on Fifth Income Bracket (\$335,001 - \$10,000,000) @ 34%	\$ -	\$ -	\$ -	
51	Total Federal Income Tax	\$ 200	\$ -	\$ 1,765	
52	Combined Federal and State Income Tax (L44 + L51)	\$ 278	\$ -	\$ 2,449	
53	Applicable Federal Income Tax Rate [Col. [C], L51 - Col. [A], L51] / [Col. [C], L45 - Col. [A], L45]			15.0000%	
<u>Calculation of Interest Synchronization:</u>					
54	Rate Base (Schedule CSB-3, Col. (C), Line 14)	\$ (247,244)			
55	Weighted Average Cost of Debt	0.0000%			
56	Synchronized Interest (L45 X L46)	\$ -			

RATE BASE				
	----- Original Cost -----			
	Company	Adjustment	Reference	Staff
Plant in Service	\$560,310	\$0	A	\$560,310
Less:				
Accum. Depreciation	476,072	0		476,072
Net Plant	\$84,238	\$0		\$84,238
Less:				
Line Extension Advances	\$0	\$0		\$0
Service Line and Meter Advances	0	0		0
Total Advances	\$0	\$0		\$0
Contributions Gross	\$367,499	\$0		\$367,499
Less:				
Accumulated Amortization of CIAC	26,074	0		26,074
Net CIAC	\$341,425	\$0		\$341,425
Total Deductions	\$341,425	\$0		\$341,425
Plus:				
1/24 Purchased Power & Water	\$0	\$502	B	\$502
1/8 Operation & Maint.	0	9,441	C	9,441
Inventory	0	0		0
Prepayments	0	0		0
Total Additions	\$0	\$9,943		\$9,943
Rate Base	(\$257,187)	\$9,943		(\$247,244)

B - For Rate Base adjustment A, see Schedule 2, page 4
C - For Rate Base adjustment B, see Schedule 2, page 4

PLANT ADJUSTMENT

	Company Exhibit	Adjustment	Staff Adjusted
301 Organization	\$0	\$0	\$0
302 Franchises	0	0	0
303 Land & Land Rights	0	0	0
304 Structures & Improvements	0	2,106	2,106
307 Wells & Springs	87,928	0	87,928
311 Pumping Equipment	36,147	0	36,147
320 Water Treatment Equipment	376	0	376
330.1 Distribution Reservoirs - Storage	157,369	0	157,369
330.2 Distribution Reservoirs - Pressure	0	0	0
331 Transmission & Distribution Mains	220,508	0	220,508
333 Services	8,794	0	8,794
334 Meters & Meter Installations	36,002	0	36,002
335 Hydrants	0	0	0
336 Backflow Prevention Devices	0	0	0
339 Other Plant and Misc. Equipment	0	0	0
340 Office Furniture & Equipment	3,513	0	3,513
340.1 Computer Equipment	0	0	0
341 Transportation Equipment	6,176	0	6,176
343 Tools Shop & Garage Equipment	507	0	507
344 Laboratory Equipment	0	0	0
345 Power Operated Equipment	0	0	0
346 Communication Equipment	0	0	0
347 Miscellaneous Equipment	0	0	0
348 Other Tangible Plant	2,990	(2,106)	884
105 C.W.I.P.	0	0	0
TOTAL	\$560,310	\$0	\$560,310
Adjustment A			

A - To reclassify \$2,106 from Acct. No. 348,
Other Tangible Plant to Account No. 304,
Structures and Improvements.
(See §K of attached Engineering Report for details)

ACCUMULATED DEPRECIATION ADJUSTMENT

	<u>Amount</u>
Accumulated Depreciation - Per Company	\$ 476,072
Accumulated Depreciation - Per Staff	<u>476,072</u>
Total Adjustment	<u><u>\$ -</u></u>

STAFF RATE BASE ADJUSTMENTS

B - WORKING CAPITAL (1/24 PURCHASED PWR & WTR) - Per Company	\$0	
Per Staff	502	<u>\$502</u>
To reflect Staff's calculation of working capital based upon Staff's recommendations for purchased power and purchased water.		
C - WORKING CAPITAL (1/8 OPERATION & MAINT EXP) - Per Company	\$ -	
Per Staff	9,441	<u>\$9,441</u>
To reflect Staff's calculation of working capital based upon Staff's recommendations for operation and maintenance expense (excluding purchased power and purchased water expenses).		

Tierra Buena Water Company, Inc.

Docket No. Docket Nos. W-02076A-15-0135 and W-02076A-15-0024
 Test Year Ended Test Year Ended 12/31/14

Schedule CSB-3

Page 1 of 3

STATEMENT OF OPERATING INCOME

	Company Exhibit	Staff Adjustments	Adj. No.	Staff Adjusted	Staff Recommended
Revenues:					
461 Metered Water Revenue	\$ 88,073	\$ -		\$ 88,073	\$ 11,191 \$ 99,264
460 Unmetered Water Revenue	\$ -	\$ -		\$ -	\$ -
474 Other Water Revenues	\$ 657	\$ -		\$ 657	\$ 657
Total Operating Revenue	\$ 88,730	\$ -		\$ 88,730	\$ - \$ 99,921
Operating Expenses:					
601 Salaries and Wages	\$ 41,225	\$ -		\$ 41,225	\$ - \$ 41,225
610 Purchased Water	\$ -	\$ -		\$ -	\$ -
615 Purchased Power	\$ 12,045	\$ -		\$ 12,045	\$ - \$ 12,045
618 Chemicals	\$ 1,082	\$ -		\$ 1,082	\$ - \$ 1,082
620 Repairs and Maintenance	\$ 1,738	\$ -		\$ 1,738	\$ - \$ 1,738
621 Office Supplies & Expense	\$ 575	\$ -		\$ 575	\$ - \$ 575
630 Contractual Services	\$ 2,268	\$ -		\$ 2,268	\$ - \$ 2,268
635 Water Testing	\$ 2,928	\$ (1,504)	A	\$ 1,424	\$ - \$ 1,424
641 Rents	\$ -	\$ -		\$ -	\$ -
650 Transportation Expenses	\$ 2,523	\$ -		\$ 2,523	\$ - \$ 2,523
657 Insurance - General Liability	\$ 5,225	\$ -		\$ 5,225	\$ - \$ 5,225
659 Insurance - Health and Life	\$ -	\$ -		\$ -	\$ -
666 Regulatory Commission Expense - Rate Case	\$ 5,000	\$ -		\$ 5,000	\$ - \$ 5,000
675 Miscellaneous Expense	\$ 2,425	\$ -		\$ 2,425	\$ - \$ 2,425
403 Depreciation Expense	\$ 4,717	\$ -		\$ 4,717	\$ - \$ 4,717
408 Taxes Other Than Income	\$ 3,496	\$ -		\$ 3,496	\$ - \$ 3,496
408.11 Property Taxes	\$ 3,574	\$ (0)		\$ 3,574	\$ 155 \$ 3,729
409 Income Tax	\$ (18)	\$ 296	B	\$ 278	\$ 2,171 \$ 2,449
Total Operating Expenses	\$ 88,803	\$ (1,208)		\$ 87,595	\$ 2,326 \$ 89,921
OPERATING INCOME/(LOSS)	\$ (73)	\$ 1,208		\$ 1,135	\$ (2,326) \$ 10,000

OPERATING EXPENSE ADJUSTMENT A - WATER TESTING EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Water Testing Expense	\$2,928	(\$1,504)	\$1,424

References:

- Column A: Company Schedule C-1
- Column B: Testimony, CSB; Company Rebuttal Schedule C-1
- Column C: Column [A] + Column [B]

Operating Expense Adjustment B - Property Taxes

LINE NO.	Property Tax Calculation	[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues	\$ 88,730	\$ 88,730
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	177,460	\$ 177,460
4	Staff Recommended Revenue, Per Schedule CSB-1	88,730	\$ 99,921
5	Subtotal (Line 4 + Line 5)	266,190	277,381
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	88,730	\$ 92,460
8	Department of Revenue Mutilplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	177,460	\$ 184,921
10	Plus: 10% of CWIP -	-	-
11	Less: Net Book Value of Licensed Vehicles	5,404	\$ 5,404
12	Full Cash Value (Line 9 + Line 10 - Line 11)	172,056	\$ 179,517
13	Assessment Ratio	18.0%	18.0%
14	Assessment Value (Line 12 * Line 13)	30,970	\$ 32,313
15	Composite Property Tax Rate	11.5399%	11.5399%
16	Staff Test Year Adjusted Property Tax (Line 14 * Line 15)	\$ 3,574	\$ -
17	Company Proposed Property Tax	3,574	
18	Staff Test Year Adjustment (Line 16-Line 17)	\$ (0)	
19	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		\$ 3,729
20	Staff Test Year Adjusted Property Tax Expense (Line 16)		\$ 3,574
21	Increase in Property Tax Expense Due to Increase in Revenue Requirement		\$ 155
22	Increase to Property Tax Expense		\$ 155
23	Increase in Revenue Requirement		11,191
24	Increase to Property Tax per Dollar Increase in Revenue (Line19/Line 20)		1.384788%

RATE DESIGN

Monthly Usage Charge	Present Rates	Company Proposed Rates	Staff Recommended Rates
5/8" x 3/4" Meter	\$ 9.00	\$ 11.50	\$ 7.60
3/4" Meter	\$ 10.50	\$ 17.25	\$ 11.40
1" Meter	\$ 13.50	\$ 28.75	\$ 19.00
1½" Meter	\$ 21.00	\$ 57.50	\$ 38.00
2" Meter	\$ 30.50	\$ 92.00	\$ 60.80
3" Meter	Not Applicable	\$ 184.00	\$ 121.60
4" Meter	Not Applicable	\$ 287.50	\$ 190.00
6" Meter	Not Applicable	\$ 575.00	\$ 380.00
Commodity Rates			
<u>5/8 x 3/4" & 3/4" Meter - Residential</u>			
Gallons Included in Minimum	1,000	0	0
Excess of Minimum - per 1,000 Gallons For All Gallons	\$ 2.00		
From 1 to 3,000 Gallons		\$ 1.65	\$ 1.50
From 3,001 to 9,000 Gallons		\$ 2.15	\$ 2.00
Over 9,000 Gallons		\$ 2.65	\$ 2.52
<u>5/8 x 3/4" & 3/4" Meter - NonResidential</u>			
Gallons Included in Minimum	1,000	0	0
Excess of Minimum - per 1,000 Gallons For All Gallons	\$ 2.00		
From 1 to 9,000 Gallons		\$ 2.15	\$ 2.00
Over 9,000 Gallons		\$ 2.65	\$ 2.52
<u>1" - Residential</u>			
Gallons Included in Minimum	1,000	0	0
Excess of Minimum - per 1,000 Gallons For All Gallons	\$ 2.00		
From 1 to 9,000 Gallons		\$ 1.65	\$ 1.50
From 9,001 to 22,500 Gallons		\$ 2.15	\$ 2.00
Over 22,500 Gallons		\$ 2.65	\$ 2.52

	Present Rates	Company Proposed Rates	Staff Recommended Rates
1" - NonResidential			
Gallons Included in Minimum	1,000	0	0
Excess of Minimum - per 1,000 Gallons For All Gallons	\$ 2.00		
From 1 to 22,500 Gallons		\$ 2.15	\$ 2.00
Over 22,500 Gallons		\$ 2.65	\$ 2.52
1 1/2" - All Classes			
Gallons Included in Minimum	1,000	0	0
Excess of Minimum - per 1,000 Gallons For All Gallons	\$ 2.00		
From 1 to 45,000 Gallons		\$ 2.15	\$ 2.00
Over 45,000 Gallons		\$ 2.65	\$ 2.52
2" - All Classes			
Gallons Included in Minimum	1,000	0	0
Excess of Minimum - per 1,000 Gallons For All Gallons	\$ 2.00		
From 1 to 72,000 Gallons		\$ 2.15	\$ 2.00
Over 72,000 Gallons		\$ 2.65	\$ 2.52
3" - All Classes			
Gallons Included in Minimum	1,000	0	0
Excess of Minimum - per 1,000 Gallons For All Gallons	\$ 2.00		
From 1 to 144,000 Gallons		\$ 2.15	\$ 2.00
Over 144,000 Gallons		\$ 2.65	\$ 2.52
4" - All Classes			
Gallons Included in Minimum	1,000	0	0
Excess of Minimum - per 1,000 Gallons For All Gallons	\$ 2.00		
From 1 to 225,000 Gallons		\$ 2.15	\$ 2.00
Over 225,000 Gallons		\$ 2.65	\$ 2.52
6" - Residential, Commercial & Industrial			
Gallons Included in Minimum	1,000	0	0
Excess of Minimum - per 1,000 Gallons For All Gallons	\$ 2.00		
From 1 to 450,000 Gallons		\$ 2.15	\$ 2.00
Over 450,000 Gallons		\$ 2.65	\$ 2.52

Service Line and Meter Installation Charges	Present Rates	Company Proposed Rates	Staff Recommended Charges		
			Service Line	Meter	Total
5/8" x 3/4" Meter	\$ 100	\$ 600	\$ 445	\$ 155	\$ 600
3/4" Meter	\$ 120	\$ 700	\$ 445	\$ 255	\$ 700
1" Meter	\$ 160	\$ 810	\$ 495	\$ 315	\$ 810
1½" Meter	\$ 300	\$ 1,075	\$ 550	\$ 525	\$ 1,075
2" Turbine Meter	\$ 400	\$ 1,875	\$ 830	\$ 1,045	\$ 1,875
2" Compound Meter	Not Applicable	\$ 2,720	\$ 830	\$ 1,890	\$ 2,720
3" Turbine Meter	Not Applicable	\$ 2,715	\$ 1,045	\$ 1,670	\$ 2,715
3" Compound Meter	Not Applicable	\$ 3,710	\$ 1,165	\$ 2,545	\$ 3,710
4" Turbine Meter	Not Applicable	\$ 4,160	\$ 1,490	\$ 2,670	\$ 4,160
4" Compound Meter	Not Applicable	\$ 5,315	\$ 1,670	\$ 3,645	\$ 5,315
6" Turbine Meter	Not Applicable	\$ 7,235	\$ 2,210	\$ 5,025	\$ 7,235
6" Compound Meter	Not Applicable	\$ 9,250	\$ 2,330	\$ 6,920	\$ 9,250
8" (Turbine)	Not Applicable	At Cost	At Cost	At Cost	At Cost
10" (Turbine)	Not Applicable	At Cost	At Cost	At Cost	At Cost
12" (Turbine)	Not Applicable	At Cost	At Cost	At Cost	At Cost
Miscellaneous Service Charges	Present Rates	Company Proposed Rates	Staff Recommended Rates		
Establishment	\$ 30.00	\$ 40.00			\$ 40.00
Establishment (After Hours)	\$ 45.00	\$ 40.00			Eliminate
Reconnection (Delinquent)	\$ 25.00	\$ 40.00			\$ 30.00
Reconnection (Delinquent and After Hours)	Not Applicable	\$ 40.00			Deny
Meter Test	\$ 25.00	\$ 30.00			\$ 25.00
Deposit	\$ 24.00	2 times average bill			*
Deposit Interest	6.00%	*			*
Re-Establishment (Within 12 Months)	**	**			**
Re-Establishment (Within 12 Months After Hours)	No Tariff	**			Deny
NSF Check	\$ 10.00	\$ 30.00			\$ 20.00
Deferred Payment- Per Month	1.50%	1.50%			1.50%
Meter Re-Read (If Correct)	\$ 15.00	\$ 30.00			\$ 25.00
Late Payment Penalty	No Tariff	\$ 10.00			\$ 10.00
Moving Customer Meter (Customer Request)	***	***			***
After-Hours Service Charge	Not Applicable	Not Applicable			\$ 35.00
<p>* Per Commission Rules (R14-2-403.B) ** Number of Months off system times the monthly minimum (R14-2-403.D) *** Per Commission Rule (R14-2-405)</p>					

TYPICAL BILL ANALYSIS

General Service 1 - Inch Meter Residential

Average Number of Customers: 127

Company Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	23,087	\$57.67	\$74.18	\$16.51	28.6%
Median Usage	18,322	\$48.14	\$72.63	\$24.48	50.8%
Staff Recommended					
<u>Without \$57.70 WIFA Loan Surcharge</u>					
Average Usage	23,087	\$57.67	\$60.98	\$3.31	5.7%
Median Usage	18,322	\$48.14	\$51.14	\$3.00	6.2%
Staff Recommended					
<u>With \$57.70 WIFA Loan Surcharge</u>					
Average Usage	23,087	\$57.67	\$118.68	\$61.01	105.8%
Median Usage	18,322	\$48.14	\$108.84	\$60.70	126.1%

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

Gallons Consumption	Present Rates	Company Proposed Rates	% Increase	Staff Proposed Rates	% Increase
0	\$13.50	\$28.75	113.0%	\$19.00	40.7%
1,000	13.50	30.40	125.2%	20.50	51.9%
2,000	15.50	32.05	106.8%	22.00	41.9%
3,000	17.50	33.70	92.6%	23.50	34.3%
4,000	19.50	35.35	81.3%	25.00	28.2%
5,000	21.50	37.00	72.1%	26.50	23.3%
6,000	23.50	38.65	64.5%	28.00	19.1%
7,000	25.50	40.30	58.0%	29.50	15.7%
8,000	27.50	41.95	52.5%	31.00	12.7%
9,000	29.50	43.60	47.8%	32.50	10.2%
10,000	31.50	45.75	45.2%	34.50	9.5%
15,000	41.50	56.50	36.1%	44.50	7.2%
20,000	51.50	67.25	30.6%	54.50	5.8%
25,000	61.50	78.18	27.1%	64.80	5.4%
50,000	111.50	144.43	29.5%	127.80	14.6%
75,000	161.50	210.68	30.4%	190.80	18.1%
100,000	211.50	276.93	30.9%	253.80	20.0%
125,000	261.50	343.18	31.2%	316.80	21.1%
150,000	311.50	409.43	31.4%	379.80	21.9%
175,000	361.50	475.68	31.6%	442.80	22.5%
200,000	411.50	541.93	31.7%	505.80	22.9%

WIFA LOAN SURCHARGE CALCULATION

Loan Amount: **\$899,506**
Term: **20** Years
Interest Rate Before Subsidy: **5.25%**
WIFA Subsidy Rate: **85%**
Interest Rate After Subsidy: **4.46%**

Step 1 - Find the Principal and Interest Components of the Annual Surcharge Revenue

\$28,508.27 Principal (From Loan Amortization Schedule)
\$39,562.06 Plus: Interest (From Loan Amortization Schedule)
\$68,070.33 Debt Service Component of the Annual Surcharge Revenue

Step 2 - Find the Gross Revenue Conversion Factor

1.262424322 From Testimony or Staff Report or Decision, Schedule XXX-1, Col. B, Line 7

Step 3 - Find the Incremental Income Tax Factor

1.26242 minus 1 = 0.26242

Step 4 - Find the Annual Income Tax Component of Surcharge Related To Principle

0.26242 Incremental Income Tax Factor (from Step 3)
\$28,508.27 Multiplied by: Annual Principal Payment on Loan from Step 1 (Note: Interest Expense is tax deductible)
\$7,481.26 Annual Income Tax Component Related to the Principle

Step 5 - Find the Annual Income Tax Component of Surcharge Related to Depreciation Expense

0.26242 Incremental Income Tax Factor (from Step 3)
\$4,717.00 Depreciation Expense (From Schedule XXX-1)
\$1,237.86 Annual Income Tax Component of Surcharge Related to Depreciation Expense

Step 6 - Find the Net Annual Income Tax Component of Surcharge

\$7,481.26 Annual Income Tax Component Related to the Principle (from Step 4)
(\$1,237.86) Less: Annual Income Tax Component of Surcharge Related to Depreciation Expense (from Step 5)
\$6,243.41 Net Annual Income Tax Component of Surcharge Revenue

Step 7 - Find the Debt Reserve Component of the Annual Surcharge Revenue

\$68,070.33 Annual Interest and Principal Payments on the Loan (from Step 1)
20% Multiplied by: One-fifth of Annual Principal and Interest Payment
\$13,614.07 Debt Reserve Component of the Annual Surcharge Revenue for first five years

Step 8 - Find the Annual Surcharge Revenue Requirement Needed for the Loan Including Reserve Fund

\$6,243.41 Net Annual Income Tax Component of the Annual Surcharge Revenue (from Step 6)
\$68,070.33 Plus: Debt Service Component of the Annual Surcharge Revenue (from Step 1)
\$13,614.07 Plus: Annual Reserve Fund Deposit (from Step 7)
\$87,927.80 Total Annual Surcharge Revenue Requirement for the Loan

Step 9 - Find the Equivalent Bills

Col A	Col B	Col C	Col D	Col E
Meter Size	NARUC Multiplier	Number of Customers	Number of Months in Year	Equivalent Bills Col B x C X D
5/8"x 3/4" Meter	1	x 0	x 12	= -
3/4" Meter	1.5	x 0	x 12	= -
1" Meter	2.5	x 127	x 12	= 3,810
1½" Meter	5	x 0	x 12	= -
2" Meter	8	x 0	x 12	= -
3" Meter	15	x 0	x 12	= -
4" Meter	25	x 0	x 12	= -
6" Meter	50	x 0	x 12	= -
		<u>127</u>		<u>3,810</u>

Step 10 - Find the Monthly Surcharge for the 1-Inch Meter Size Customers

\$87,927.80 Total Annual Surcharge Revenue Requirement for the Loan (from Step 8)
3,810 Divided by: Total Number of Equivalent Bills (from Step 9)
\$23.08 Monthly Surcharge for 1-Inch Customers

Step 11 - Find the Monthly Surcharge for the Remaining Meter Size Customers

Col A	Col B	Col C	Col D
Meter Size	NARUC Multiplier	1-Inch Customers' Surcharge	Surcharge by Meter Size Col B x C
5/8"x 3/4" Meter	1	x \$23.08	= \$23.08
3/4" Meter	1.5	x \$23.08	= \$34.62
1" Meter	2.5	x \$23.08	= \$57.70
1½" Meter	5	x \$23.08	= \$115.39
2" Meter	8	x \$23.08	= \$184.63
3" Meter	15	x \$23.08	= \$346.17
4" Meter	25	x \$23.08	= \$576.95
6" Meter	50	x \$23.08	= \$1,153.91

WIFA Loan Amount Requested	\$899,506		
Down Payment:	\$0		
Amount Financed:	\$899,506		
Number of years:	20	Compounding Periods:	12
Interest rate Before Subsidy	5.25%		
WIFA Subsidy Rate:	0.85		
WIFA Interest rate (r) (Line 5 x Line 6):	4.46%	APR:	4.55%

LOAN AMORTIZATION SCHEDULE

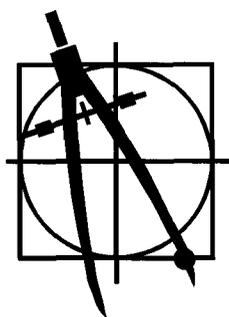
Period	Loan payment (1)	Beginning-of-month principal (2)	Payments		End-of-month principal [(2) - (4)] (5)	Annual Interest (6)	Annual Principal (7)	Annual Debt Payment (8)
			Interest [r * (2)] (3)	Principal [(1) - (3)] (4)				
1	\$5,672.53	\$899,506.00	\$3,345.04	\$2,327.49	\$897,178.51			
2	5,672.53	897,178.51	3,336.38	2,336.14	894,842.37			
3	5,672.53	894,842.37	3,327.70	2,344.83	892,497.53			
4	5,672.53	892,497.53	3,318.98	2,353.55	890,143.98			
5	5,672.53	890,143.98	3,310.22	2,362.30	887,781.68			
6	5,672.53	887,781.68	3,301.44	2,371.09	885,410.59			
7	5,672.53	885,410.59	3,292.62	2,379.91	883,030.68			
8	5,672.53	883,030.68	3,283.77	2,388.76	880,641.92			
9	5,672.53	880,641.92	3,274.89	2,397.64	878,244.28			
10	5,672.53	878,244.28	3,265.97	2,406.56	875,837.73			
11	5,672.53	875,837.73	3,257.02	2,415.51	873,422.22			
12	5,672.53	873,422.22	3,248.04	2,424.49	870,997.73	39,562.06	28,508.27	68,070.33

FINANCIAL ANALYSIS

Selected Financial Data
Including Immediate Effects of the Proposed Debt & WIFA Loan Surcharge

Line No.	[A] Staff Recommended Rates without Surcharge, Loan Principal & Interest		[B] Adjustments	REF	[C] Staff Recommended Rates with Surcharge, Loan Principal & Interest	
1	INCOME STATEMENT					
2	Operating Revenue					
3	Metered Water Revenue	\$ 99,264	\$ -		\$	99,264
4	WIFA Loan Surcharge	\$ -	\$ 87,928	A	\$	87,928
5	Other Water Revenues	\$ 657	\$ -		\$	657
6	Total Operating Rev:	\$ 99,921	\$ 87,928		\$	187,849
7	Operating Expenses					
8	601 Salaries and Wages	\$ 41,225	\$ -		\$	41,225
9	615 Purchased Power	\$ 12,045	\$ -		\$	12,045
	618 Chemicals	\$ 1,082	\$ -		\$	1,082
10	620 Repairs and Maintenance	\$ 1,738	\$ -		\$	1,738
11	621 Office Supplies & Expense	\$ 575	\$ -		\$	575
12	630 Contractual Services	\$ 2,268	\$ -		\$	2,268
13	635 Water Testing	\$ 1,424	\$ -		\$	1,424
14	650 Transportation Expenses	\$ 2,523	\$ -		\$	2,523
15	657 Insurance - General Liability	\$ 5,225	\$ -		\$	5,225
16	666 Regulatory Comm Exp - Rate Case	\$ 5,000	\$ -		\$	5,000
17	675 Miscellaneous Expense	\$ 2,425	\$ -		\$	2,425
18	403 Depreciation Expense	\$ 4,717	\$ -		\$	4,717
19	408 Taxes Other Than Income	\$ 3,496	\$ -		\$	3,496
20	408.11 Property Taxes	\$ 3,729	\$ -		\$	3,729
21	409 Income Tax	\$ 2,449	\$ 6,243	B	\$	8,693
22	Total Operating Expense	\$ 89,921	\$ 6,243		\$	96,165
23	Operating Income	\$ 10,000	\$ 81,684		\$	91,684
24	Interest Income	\$ -	\$ -		\$	-
25	Interest Expense on Long-term debt	\$ -	\$ 39,562	C	\$	39,562
26	Total Other Interest Expense	\$ -	\$ (39,562)		\$	(39,562)
27	Net Income	\$ 10,000	\$ 42,122		\$	52,122
28	Rate Base	\$ (247,244)			\$	(247,244)
29	Rate of Return (Line 23 / Line 28)	Not Meaningful			Not Meaningful	
30	Operating Margin (Line 23 / Line 6)	10.01%			48.81%	
31a	Principal Repayment	\$ -	\$ 28,508	D	\$	28,508
31b	Debt Reserve Annual Payment	\$ -	\$ 13,614		\$	13,614
31c	Principal & Debt Reserve Payment	\$ -	\$ 42,122		\$	42,122
32	Cash Flow (L 27 + L18 - L31c)	\$ 14,717	\$ -		\$	14,717
33	TIER					
34	Before Tax [L 21 + L 23] ÷ L 25	Not Meaningful			2.54	
35	Before Tax [L 21 + L 23] + L 25	Not Meaningful			2.32	
36	DSC					
37	Before Tax [L 18 + L 21 + L 23] ÷ [L 25 + L 31]	Not Meaningful			1.54	
38	After Tax [L 18 + L 21 + L 23] ÷ [L 25 + L 31] WIFA	Not Meaningful			1.42	
39	Short-term Debt	\$ -	0%		\$	28,508 4.1%
40	Long-term Debt	\$ -	0%		\$	870,998 125.4%
41	Common Equity	\$ (204,655)	100%		\$	(204,655) -29.5%
42	Total Capital	\$ (204,655)	100.0%		\$	694,851 100.0%

44 A - See Sch CSB-6, page 1, Step 1 and Step 6
45 B - See Sch CSB-6, page 1, Step 6
46 C - See Sch CSB-6, page 1, Step 2
47 D - See Sch CSB-6, page 1, Step 3



Engineering Report
Tierra Buena Water Company, Inc.
Prepared By
Dorothy Hains, P. E.

Docket No. W-02076A-15-0135 (Rates)
& Docket No. W-02076A-15-0024
(Financing)

July 20, 2015

EXECUTIVE SUMMARY

Recommendations:

1. Arizona Corporation Commission (“ACC” or “Commission”) Utilities Division Staff (“Staff”) recommends estimated annual water testing costs of \$1,424 for Tierra Buena Water Company, Inc. (“Tierra Buena or “Company”). (See §I and Table 4 for discussion and details.)
2. Staff recommends the depreciation rates by individual National Association of Regulatory Utility Commissioners (“NARUC”) category, as delineated in Figure 5. (See §J and Figure 5 for a discussion and a tabulation of the recommended rates.)
3. Staff recommends approval of the meter and service line installation charges listed under the columns labeled “Staff Recommendation” in Table 6. (See §K of report for discussion and details.)
4. Staff recommends that \$2,106 in NARUC Account No. 348 (Other Tangible Plant) be reclassified to NARUC Account No. 304 (Structures and Improvements). (See §K for discussion and details.)
5. Staff recommends that Tierra Buena file with Docket Control, as a compliance item in this docket within 90 days of the effective date of a decision in this proceeding, at least three (3) Best Management Practice (“BMP”) Tariffs in the form of tariffs that substantially conform to the templates created by Staff. The templates created by Staff are available on the Commission’s website at <http://www.azcc.gov/Divisions/Utilities/forms.asp>. A maximum of two BMPs may come from the “Public Awareness/Public Relations” or “Education and Training” categories. The Company may request cost recovery of the actual costs associated with the BMPs implemented in its next general rate application. (See §K for discussion and details.)
6. Staff recommends that Tierra Buena test the arsenic level after Well No. 2, well rehabilitation is completed. Staff further recommends that the Company submit the arsenic test result from the rehabilitated Well No. 2 to Docket Control in this docket. Staff further recommends that the Company file a letter with Docket Control in this docket by December 31, 2016, stating whether it believes an arsenic treatment facility is still needed. Staff further

recommends that the Company file with Docket Control, as a compliance item in this docket, by December 31, 2016, a copy of the MCDES Approval of Construction ("AOC") for the capital improvements to be financed as discussed in the Section of Financing. (See §K of report for discussion and details.)

7. Staff recommends \$394 which was listed in water testing cost be moved to NARUC Account No. 320.1 (Water Treatment Plants) when the arsenic treatment plant becomes used and useful. (See §I of report for discussion and details.)

Conclusions:

1. A check of the Commission's Compliance Section database dated February 17, 2015 and June 22, 2015, indicated that both Tierra Buena and Valley Utilities Water ("VU") had no ACC delinquent compliance items. (See §H and §K of report for discussion and details.)
2. Both Tierra Buena and VU are in the Arizona Department of Water Resources ("ADWR") Phoenix Active Management Area. Staff received Compliance Status Reports from ADWR on March 30, 2015 and July 1, 2015. In the reports, ADWR stated that both Tierra Buena and VU are compliant with departmental requirements governing water providers and/or community water systems. (See §G and §K of report for discussion and details.)
3. In the Compliance Status Reports dated February 4, 2015 and June 22, 2015, Maricopa County Environmental Services Department ("MCESD") reported that both Tierra Buena and VU had no major deficiencies and were delivering water that meets water quality standards required by 40 CFR 141 (National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4. (See §F and §K of report for discussion and details.)
4. Tierra Buena has approved cross connection and curtailment tariffs on file with the Commission. (See §K of report for discussion and details.)
5. Tierra Buena does not have adequate production and storage capacities to support its existing customer base and reasonable growth. (See §C of report for discussion and details.)
6. Tierra Buena had 5.82 percent water loss during the test year which is within the allowable limit of 10 percent. (See §D report for discussion and details.)
7. Staff concludes that the proposed capital improvement plants for Project 1 (interconnection), Project 2 Well No. 2 rehabilitation), and Project 3 (Arsenic Treatment Facility) listed in Table 5 are appropriate and the cost estimates are reasonable. However, no "used and useful" determination of the proposed project item was made and no particular treatment should be inferred for rate making or rate base purpose in the future. (See §K of report for discussion and details.)

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A. PURPOSE OF REPORT

On January 30, 2015, Tierra Buena Water Company, Inc. ("Tierra Buena" or "Company") filed a Financing Application with the Commission. On April 24, 2015 the Company filed its rate increase application. On June 19, 2015 a Letter of Sufficiency was issued. On June 22, 2015 the Company requested to consolidate the rates and financing applications.

This report was prepared in response to the applications filed by the Company with the Arizona Corporation Commission ("ACC" or "the Commission"). The ACC Utilities Division Staff ("Staff") conducted an engineering review and analysis of the subject application, which is presented in this report.

An inspection of the Company's water system was conducted by Dorothy Hains, Staff Engineer, accompanied by Company Representative, Bob Prince (Owner and Operator) on May 11, 2015.

B. LOCATION OF THE COMPANY

The Tierra Buena System is located in a non-incorporated community, north of the Town of Litchfield Park and west of the City of Glendale in Maricopa County. Figure 1 shows the Certificate of Convenience and Necessity ("CC&N") area of Tierra Buena System. Figure 2 shows the location of Tierra Buena System relative to other regulated water utilities serving in the area. The CC&N area contains approximate 0.2 square-miles including a portion of Section 14 in Township 2 North and Range 1 West.

C. DESCRIPTION OF SYSTEM

System Description

The Tierra Buena system ("System") is regulated under Arizona Department of Environmental Quality ("ADEQ") Public Water System ("PWS") No. 07-073. The System was installed in 1968; it contains one active well, a 100,000 gallon steel storage tank, one 5,000 gallon pressure tank and two 15-horse power ("HP") booster pumps and a distribution system serving approximately 127 customers during the test year ending December 2014. The Company also owns Well No. 1 and its associated 5,000 gallon pressure tank; both Well No. 1¹ and the 5,000 gallon pressure tank have been disconnected from the rest of system since 1998. A detailed plant facility description is as follows:

¹ Well No. 1 is capped.

Table 1 Tierra Buena Plant Facility (PWS No. 07-073)

Active Drinking Water Well

ADWR No.	Well No.	Year Drilled	Casing Size (inches)	Well Depth (ft)	Well Meter Size (inches)	Pump (HP)	Pump Yield (GPM)	Location
55-564891	Well-2	1998	12	680	4	80	175	12703 Georgia Ave., Litchfield Park

Active Storage, Pumping

Location	Structure or equipment	Capacity
12703 Georgia Ave., Litchfield Park	Pressure Tank	One 5,000 gallon tank
	Storage Tank	One 100,000 gallons steel tank (12' deep)
	Booster pump station	Two 15-HP

Distribution Mains in Tierra Buena CC&N Area

Diameter (inches)	Material	Length (feet)
6	Ductile Iron Pipe ("DIP")/ Asbestos Cement pipe ("ACP")	12,000

Meters in Tierra Buena Service Area

Size (inches)	Quantity
5/8 x 3/4	N/A
3/4	N/A
1	127
1 1/2	N/A
2	N/A
3	N/A
4	N/A
8	N/A

Inactive Drinking Water Well

ADWR No.	Well No.	Year Drilled	Year Disconnected	Casing Size (inches)	Well Depth (ft)	Well Meter Size (inches)	Pump (HP)	Pump Yield (GPM)	Location
55-801249	Well-1	1965	1998	8	450	N/A	N/A	10	Lot west from 12213 Missouri Ave., Litchfield Park

Inactive Plant Items

Location	Equipment
Lot west from 12213 Missouri Ave., Litchfield Park (Well No. 1 Site)	One 5,000 gallon pressure tank

II. System Analysis

The Tierra Buena System has a total production capacity of 175 gallons per minute (“GPM”) and storage capacity of one hundred thousand gallons that are not adequate to serve the present customers. The Company also seeks funding to install a six-inch main and a six-inch meter to interconnect with Valley Utilities Water (“VU”) via the pending financing application. (See Section K.)

D. WATER USAGE

Table 2 summarizes water usage in the Company’s service area. Figure 3 is a graph that shows water consumption data in gallons per day (“GPD”) per customer for the Tierra Buena system for the test year period of January 2014 through December 2014.

Table 2 Water Usage in Tierra Buena CC&N Area

Month	Number of Customers	Monthly Water Sold (in gallons)	Water pumped (in gallons)	Water purchased (in gallons)	Daily Average (in gpd/customer)
Jan 14	127	2,256,000	2,461,000	0	573
Feb 14	127	1,887,000	2,032,000	0	531
Mar 14	127	2,356,000	2,557,000	0	598
Apr 14	127	2,806,000	2,883,000	0	736
May 14	127	3,281,000	3,439,000	0	833
Jun 14	126	4,781,000	4,990,000	0	1,265
Jul 14	127	4,212,000	4,404,000	0	1,070
Aug 14	127	3,856,000	4,056,000	0	979
Sep 14	127	2,547,000	2,777,000	0	669
Oct 14	127	2,748,000	2,894,000	0	698
Nov 14	127	2,906,000	3,218,000	0	763
Dec 14	127	1,624,000	1,728,000	0	412
total		35,260,000	37,439,000	0	
Average					761

I. Water Sold

Based on information provided by the Company, the calculated highest use was 1,265 GPD per customer in June and the lowest was 412 GPD per customer in December. The average water usage was 761 GPD per customer.

II. Non-account Water

Non-account water should be 10 percent or less. The Company reported 35,260,000 gallons sold and 37,439,000 gallons pumped, resulting in a water loss of 5.82 percent. This 5.82 percent is within the acceptable limit of 10 percent.

E. GROWTH PROJECTION

The number of service connections was obtained from annual reports submitted to the Commission. At the end of the test year December 2014, the Company had 127 customers. Customer growth is expected to remain flat through 2018. The following table summarizes Staff's projected growth.

Table 3 Actual and Projected Growth in Tierra Buena Water Service Area

Year	Nos. of Customers	
2004	125	Reported
2005	126	Reported
2006	126	Reported
2007	126	Estimated
2008	125	Reported
2009	124	Reported
2010	125	Reported
2011	125	Reported
2012	127	Reported
2013	127	Reported
2014	127	Reported
2015	127	Estimated
2016	127	Estimated
2017	127	Estimated
2018	127	Estimated
2019	127	Estimated

F. MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT ("MCESD") COMPLIANCE

Staff received a Compliance Status Report ("CSR") from MCESD dated February 4, 2015, in which MCESD stated that Tierra Buena water system (PWS No. 07-073) has no major deficiencies and is delivering water that meets water quality standards required by 40 CFR 141 (National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4.

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

Tierra Buena is in the Phoenix Active Management Area ("AMA"). Staff received a CSR from ADWR for the Tierra Buena System on March 30, 2015. In its report, ADWR reported that

Tierra Buena System is in compliance with departmental requirements governing water providers and/or community water systems.

H. ACC COMPLIANCE

A check of the Commission's Compliance Section database dated February 17, 2015, indicated that the Company had no ACC delinquent compliance items.

I. WATER TESTING EXPENSES

The Company reported its test year water testing expense at \$2,928, which included \$450² for complete water quality tests to assist determination of arsenic treatment method to be used in its arsenic removal plan. Staff recommends that \$394 be moved to National Association of Regulatory Utility Commissioners ("NARUC") Account No. 320.1 (Water Treatment Plants) when the arsenic treatment plant becomes used and useful. Staff used the ADEQ Monitoring Assistance Program ("MAP") to develop its testing costs based on the following assumptions:

1. MAP will do baseline testing on everything except copper, lead, bacteria, and disinfection by-products.
2. The estimated water testing expenses represent a minimum cost based on no "hits" other than lead and copper, and assume compositing of well samples. If any constituents are found, then the testing costs could dramatically increase. ADEQ testing is performed in 3-year compliance cycles. Therefore, monitoring costs are estimated for a 3-year compliance period and then presented on an annualized basis.
3. MAP fees were based on the ADEQ MAP invoice for calendar year 2014.
4. All monitoring expenses are based on Staff's best knowledge of lab costs and methodology and one point of entry.

² That included \$56 for testing nitrates and \$394 for testing complete water qualities in the source.

Table 4 shows Staff's estimated annual monitoring expense.

Table 4 Water Testing Cost (Tierra Buena Water - PWS #07-073)

Monitoring – 1 well & 1 POED (Tests per 3 years, unless noted.)	Cost per test	No. of tests per three year period	Total cost per three year period	Annual Cost
Bacteriological – monthly	\$16	36	\$576	\$192
Inorganics – Priority Pollutants	\$300	MAP	MAP	MAP
Radiochemical – (1/ 4 yr)	\$60	MAP	MAP	MAP
Phase II and V:				
IOC's, SOC's, VOC's	\$2,805	MAP	MAP	MAP
Nitrites	\$25	MAP	MAP	MAP
Nitrates – annual	\$25	MAP	MAP	MAP
Asbestos – per 9 years	\$180	2½	MAP	MAP
Lead & Copper – annual*	\$34	5	\$170	\$57
TTHM/HHA ₅	\$360 ¹	3	\$1,080	\$360
Maximum chlorine residual levels	\$0	36	\$0	\$0
Arsenic	\$41 ²	12	\$492	\$164
ICP-MS digestion	\$20	12	\$240	\$80
MAP Fee				\$571.25
Total				\$1,424

Note: 1. Legend Technical Service, Inc. charges \$110/sample for testing TTHM and \$250/sample for testing HHA₅.
2. Estimate includes \$20/sample for ICP-MS digestion preparation and \$21/sample for total ICP-MS arsenic test cost.

Water testing expenses should be adjusted to Staff's recommended annual expense amount shown in Table 4, which totals \$1,424.

J. DEPRECIATION RATES

Staff has developed typical and customary depreciation rates within the range of anticipated equipment life. These rates are presented in Figure 5, and should be used to calculate the annual depreciation expense for the Company. Staff recommends that the depreciation rates by individual NARUC category, as delineated in Figure 5 be used for purposes of this proceeding.

K. FINANCING APPLICATION (DOCKET NO. W-02076A-15-0024)

Financing Application

On January 30, 2015, the Company filed a financing application requesting Commission authorization to borrow \$899,506 from the Water Infrastructure Finance Authority ("WIFA") of Arizona to address problems of adequate source capacity and an exceedance of the arsenic maximum contaminate level ("MCL") in the Company's source water. The Company proposes three projects in this financing application: (1) install a 6-inch meter and a 6-inch ductile iron pipe ("DIP") line to interconnect the Company's system with the Valley Utilities ("VU") Water system³; (2) to rehabilitate Well No. 2, and (3) to install an arsenic treatment facility at the Company's Well No. 2 site (see discussion below for more detail).

I. *Analysis*

a. *Project 1- Interconnection with VU*

The Company proposes to install a six-inch service meter and approximately 110 feet of 6-inch DIP line that crosses Missouri Avenue that interconnects with the Company's Well No. 1 site with an existing VU 6-inch main. This project is intended to provide a reliable additional backup source of water for the Company during times when the Company's well is not in service.

b. *Project 2 – Well No. 2 Rehabilitation*

The Company proposes to rehabilitate Well No. 2, which is a 17 year old well. The proposal includes replacing well pump and motor, valves and removing deposits in the casing by injecting chemical solutions⁴ to remove solids built up in the casing. This project could increase the production rate of Well No. 2 and reduce arsenic to a level below the MCL⁵. If the Well No. 2 rehabilitation project is successful at reducing the arsenic to an acceptable level, then the Company will withdraw Project No. 3, which proposes to install a 200 GPM Seven Trent arsenic treatment facility ("ATF"). Therefore, Staff recommends that the Company test the arsenic level after well rehabilitation is completed. Staff further recommends that the Company submit the arsenic test result from the rehabilitated Well No. 2 to the Docket Control in this docket. Staff further recommends that the Company file a letter with Docket Control in this docket by December 31, 2016, stating whether it believes an arsenic treatment facility is still needed.

c. *Project 3- Arsenic Treatment Plant*

3, VU is willing to release 200 GPM of water to Tierra Buena for this purpose.

4 Tierra Buena proposes to use 10% Well-Kleam solution, 35% hydrogen peroxide, 12.5% sodium hypo chlorinate and sodium bicarbonate.

5 Changing the pump location and/or the pumping rate may affect the level of arsenic in the water produced.

The Company proposes to install a 200 GPM Seven Trent ATF. The ATF is a two vessel⁶, single lead/lag train system, with 2,500 gallon backwash holding tank.

Staff concludes that the estimated costs listed below as adjusted by Staff's are reasonable. Table 5 details the estimated cost of each Project.

Table 5 Finance Related Capital Costs

Work of Scope Descriptions	Co.'s Estimated Costs (\$)	Staff Recommended Costs (\$)
PROJECT 1. Metered Inter-connection with Valley Utilities¹ ("VU")		
Materials (installing 110 linear feet, 6-inch DIP on Missouri Ave) and Labor	40,664	40,664
One 6-inch meter (connecting to VU)	5,025	5,025
Permit (Maricopa County Department of Transportation)	240	240
subtotal	45,929	45,929
Administration & Legal fees (2.5% of subtotal)	1,148	1,148
Project Management & Inspections (2.5% of subtotal)	1,148	1,148
Contingency (15% of subtotal)	6,889	6,889
Total	55,115	55,115
Project 2. Well No. 2 Rehabilitation		
Material & Labor (including pull well pump out, replacing well pump to a 225 GPM Berkeley 6T15-225 pump, replacing one booster pump to Franklin 15HP/460v/3PH motor, removal clog material in the casing by chemical treatment, brushing casing, valves)	106,705	106,705
Videotaping the well (equipment rental, labor)	2,000	2,000
Engineering evaluation & report for the well (by Clear Creek & Associates)	17,491	17,491
Purchased water from VU with tax (estimated 5,289,600 gallons)	21,704	21,704
subtotal	147,900	147,900
Administration & Legal fees (2.5% of subtotal)	3,698	3,698
Project Management & Inspections (2.5% of subtotal)	3,698	3,698
Contingency (15% of subtotal)	22,184	22,184
Total	177,479	177,479
Total Costs of Project 1 & Project 2	232,594	232,594
Project 3. Arsenic Treatment Facility^{2,3} ("ATF")		
One Seven Trent ATP (including a 200 GPM, single lead/lag system, one 2,500 gallon backwashing water holding tank, concrete pad, \$6,344 for Davis-Bacon cost)	266,770	266,770

⁶ Each vessel has approximately 885 gallon capacities.

control panel /electric improvement,	50,000	50,000
VAF filter (automatic self-cleaning) model #V-250-3	10,000	10,000
Cal-Val Backwash control valve	6,000	6,000
One 15-HP jockey/integral VFD booster pump	51,600	51,600
Earth work, side structure	3,600	3,600
wall	2,100	2,100
Parts, labor	19,887	19,887
Tax (9.1% material)	30,956	30,956
Subtotal	440,913	440,913
Engineering (15%)	66,137	66,137
legal	15,000	15,000
Davis-Bacon (10% of labor)	6,344	6,344
permit	15,000	15,000
Subtotal	543,394	543,394
Contingency (15%)	81,510	81,510
Total (ATF & Labor)	624,904	624,904
Purchased water from VU with tax (estimated 2,458,500 gallons)	10,250	10,250
subtotal	635,154	635,154
Administration & Legal fees (2.5% of subtotal)	15,879	15,879
Project Management & Inspections (2.5% of subtotal)	15,879	15,879
Total	666,912	666,912
TOTAL (including Project 1, Project 2 & Project 3)	899,506	899,506

Notes:

1. VU is the water provider to the Company.
2. If the consultant concludes that the well rehabilitation can resolve the arsenic problem, then Project No. 3 will be excluded from this financing application. Then, the total capital improvement cost will be \$232,594.
3. If the well rehabilitation does not resolve the arsenic issue, the arsenic removal facility will be included in this financing application.

II. *VU*

a. *Compliance Status*

In the MCESD CSR dated June 22, 2015, MCESD stated that the VU water system (PWS No. 07-079) has no major deficiencies and is delivering water that meets water quality standards required by 40 CFR 141 (National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4.

VU also is in the Phoenix AMA. In a CSR dated July 1, 2015, ADWR reported that VU is in compliance with departmental requirements governing water providers and/or community water systems.

A check of the Commission's Compliance Section database dated June 22, 2015, indicated that the Company had no ACC delinquent compliance items.

b. VU System Analysis

VU owns and operates a water system that consists of five active wells⁷, two arsenic treatment facilities, six storage tanks⁸ and a distribution system serving approximately 1,480 customers at the present time. Although VU does not have adequate production to serve its customers at present time, VU can purchase 400 GPM of water from Liberty's Litchfield Park water system if an emergency occurs. Further, in a recent Main Extension Agreement application, VU stated that VU would upgrade its Well No. 5, when water demand increases. Therefore, Staff concludes that it is reasonable to expect that VU will develop adequate production in the future, and VU is a reliable backup water provider for the Company.

Based on the fact that VU does not have adequate production at the present time, Staff recommends that the Company plan the construction of Project 2 (Well No. 2 rehabilitation), and Project 3 (ATF) during VU low water usage months. Staff concludes that the proposed capital improvements for Project 1 (interconnection), Project 2 Well No. 2 rehabilitation), and Project 3 (ATF) listed above are appropriate and the cost estimates are reasonable. However, no "used and useful" determination of the proposed project item was made and no particular treatment should be inferred for rate making or rate base purpose in the future.

Staff recommends that the Company file with Docket Control, as a compliance item in this docket, by December 31, 2016, a copy of the MCDES Approval of Construction ("AOC") for the capital improvements to be financed as discussed above.

L. OTHER ISSUES

I. Service Line and Meter Installation Charges⁹

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

7 Total production capacity in VU is 1,133 GPM at present time.

8 Total storage capacity in VU is 2,060,000 gallons.

9 Service line and meter installation charges are refundable advances.

recommends that the Company be allowed to charge "actual cost" for service meters 6-inch and larger.

Table 6 Service Line and Meter Installation Charges (Tierra Buena)

Meter Size	Current Total Installation Charge	Company Proposed Total Installation Charge	Staff Recommended (Service Line installation charge)	Staff Recommended (Meter installation charge)	Staff Recommended total charges
5/8 x 3/4-inch	\$100	\$600	\$445	\$155	\$600
3/4-inch	\$120	\$700	\$445	\$255	\$700
1-inch	\$160	\$810	\$495	\$315	\$810
1½-inch	\$300	\$1,075	\$550	\$525	\$1,075
2-inch (Turbine)	\$400	\$1,875	\$830	\$1,045	\$1,875
2-inch (Compound)	N/A	\$2,720	\$830	\$1,890	\$2,720
3-inch (Turbine)	N/A	\$2,715	\$1,045	\$1,670	\$2,715
3-inch (Compound)	N/A	\$3,710	\$1,165	\$2,545	\$3,710
4-inch (Turbine)	N/A	\$4,160	\$1,490	\$2,670	\$4,160
4-inch (Compound)	N/A	\$5,315	\$1,670	\$3,645	\$5,315
6-inch (Turbine)	N/A	\$7,235	\$2,210	\$5,025	\$7,235
6-inch (Compound)	N/A	\$9,250	\$2,330	\$6,920	\$9,250
8-inch (Turbine)	N/A	At Cost	At Cost	At Cost	At Cost
10-inch (Turbine)	N/A	At Cost	At Cost	At Cost	At Cost
12-inch (Turbine)	N/A	At Cost	At Cost	At Cost	At Cost

II. Curtailment Tariff

The Company has an approved Curtailment Tariff on file with the Commission.

III. Cross Connection & Backflow Prevention Tariff

The Company has had an approved Cross Connection & Backflow Prevention Tariff on file with the Commission since June 19, 2015.

IV. Best Management Practices ("BMPs") Tariff

Staff recommends that Tierra Buena file with Docket Control, as a compliance item in this docket within 90 days of the effective date of a decision in this proceeding, at least three (3) BMP Tariffs in the form of tariffs that substantially conform to the templates created by Staff. The templates created by Staff are available on the Commission's website at <http://www.azcc.gov/Divisions/Utilities/forms.asp>.

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

V. Reclassification of Plant Items

In 2006, Tierra Buena paid \$2,106 for increasing wall height by adding two layers of blocks at the Well 2 site. Tierra Buena classified \$2,106 in NARUC Account No. 348 (Other Tangible Plant). Staff believes this expense should be classified in NARUC Account No. 304 (Structures and Improvements). Therefore, Staff recommends that \$2,106 in NARUC Account No. 348 (Other Tangible Plant) be reclassified to NARUC Account No. 304 (Structures and Improvements).

FIGURE 2.

LOCATION OF TIERRA BUENA SERVICE AREA IN MARICOPA COUNTY

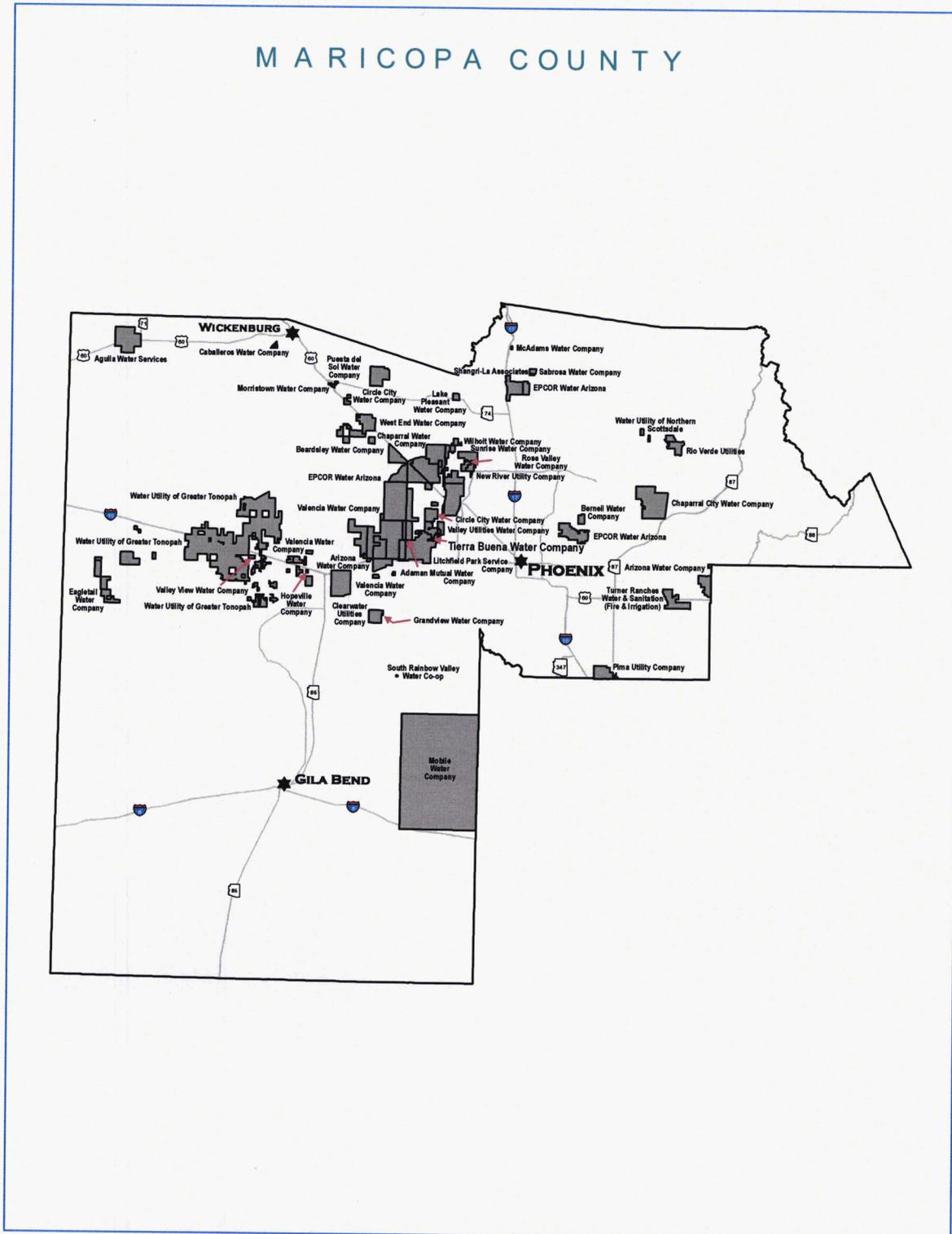


FIGURE 3 SYSTEMATIC DRAWING

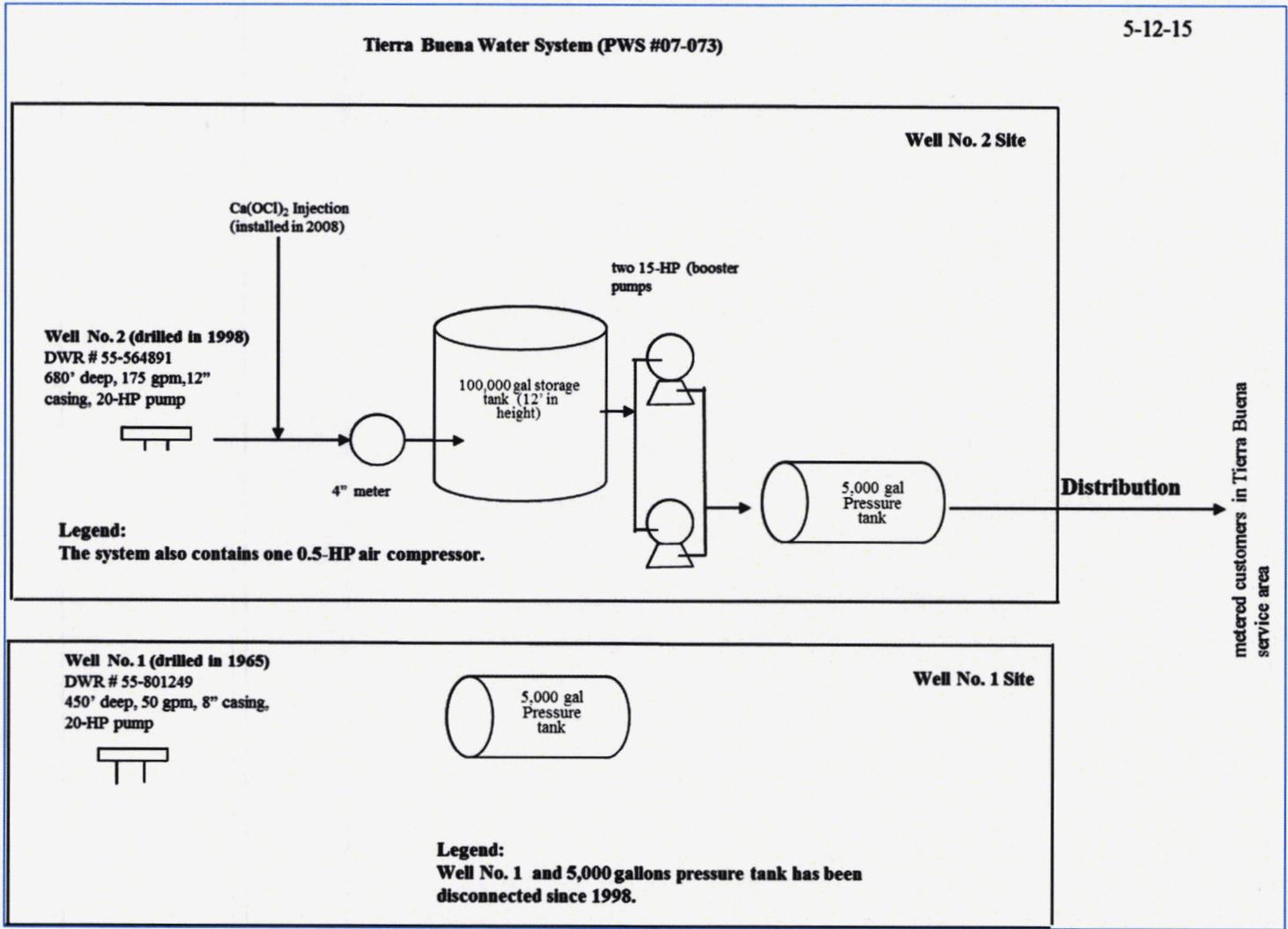


FIGURE 4

WATER USAGE IN TIERRA BUENA SERVICE AREA

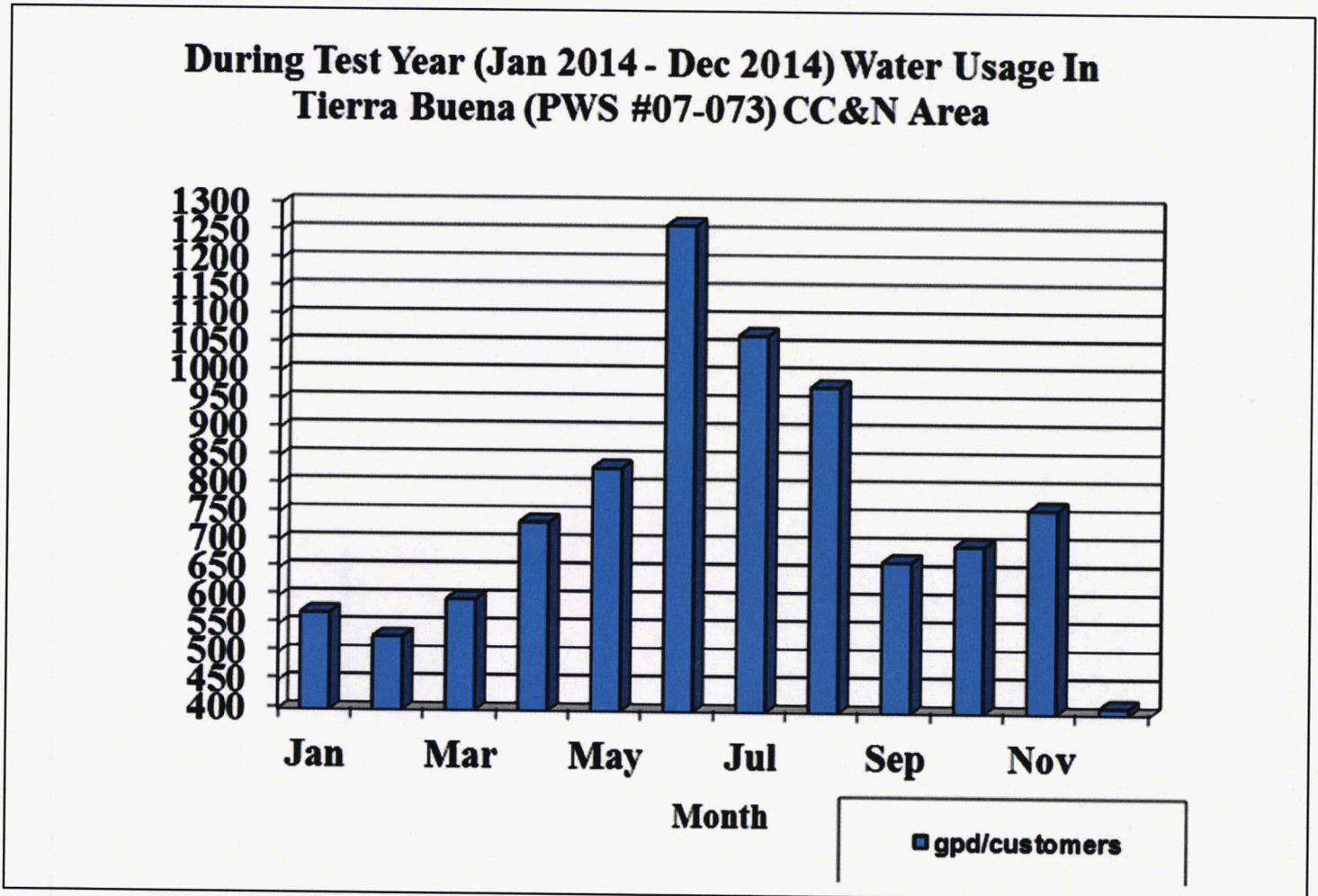


FIGURE 5
Water Depreciation Rates (Tierra Buena)

Acct. No.	Depreciable Plant	Decision # 55423 (approved rate %)	Company proposed	Staff Recommended Rate (%)
301	Organization	0.00	0.00	0.00
302	Franchises	0.00	0.00	0.00
303	Land and Land Rights	0.00	0.00	0.00
304	Structures & Improvements	N/A	3.33	3.33
305	Collecting & Impounding Reservoirs	N/A	2.50	2.50
306	Lake, River, Canal Intakes	N/A	2.50	2.50
307	Wells & Springs	N/A	3.33	3.33
308	Infiltration Galleries	N/A	6.67	6.67
309	Raw Water Supply Mains	N/A	2.00	2.00
310	Power Generation Equipment	N/A	5.00	5.00
311	Pumping Equipment	5.00	12.5	12.5
320	Water Treatment Equipment	N/A	3.33	3.33
320.1	Water Treatment Plants	N/A	3.33	3.33
320.2	Solution Chemical Feeders	N/A	20.00	20.00
330	Distribution Reservoirs & Standpipes	5.00	2.22	2.22
330.1	Storage Tanks	N/A	2.22	2.22
330.2	Pressure Tanks	N/A	5.00	5.00
331	Transmission & Distribution Mains	5.00	2.00	2.00
333	Services	5.00	3.33	3.33
334	Meters	5.00	8.33	8.33
335	Hydrants	N/A	2.00	2.00
336	Backflow Prevention Devices	N/A	6.67	6.67
339	Other Plant & Misc Equipment	5.00	6.67	6.67
340	Office Furniture & Equipment	5.00	6.67	6.67
340.1	Computers & Software	N/A	20.00	20.00
341	Transportation Equipment	N/A	20.00	20.00
342	Stores Equipment	N/A	4.00	4.00
343	Tools, Shop & Garage Equipment	N/A	5.00	5.00
344	Laboratory Equipment	N/A	10.00	10.00
345	Power Operated Equipment	N/A	5.00	5.00
346	Communication Equipment	N/A	10.00	10.00
347	Miscellaneous Equipment	N/A	10.00	10.00
348	Other Tangible Plant	N/A	5.00	10.00