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MEMORANDUM

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AZ CORP COMMISSION  
DOCKET CONTROL

TO: Docket Control

FROM: Thomas M. Broderick *TM Broderick*  
Director  
Utilities Division

DATE: May 9, 2016

RE: STAFF REPORT FOR FRANCESCA WATER COMPANY INC.'S  
APPLICATION FOR A PERMANENT RATE INCREASE (DOCKET NO. W-  
03945A-16-0044)

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

Any party who wishes may file comments to the Staff Report with the Commission's Docket Control by 4:00 p.m. on or before May 19, 2016.

TMB:BES:red\RWG

Originator: Brian Smith

Arizona Corporation Commission

DOCKETED

MAY 09 2016

DOCKETED BY	<i>AS</i>
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Service List for: Francesca Water Co., Inc  
Docket No. W-03945A-16-0044

Ms. Bonnie O'Connor  
Southwestern Utility Management, Inc.  
c/o Francesca Water Company, Inc.  
PO Box 85160  
Tucson, Arizona 85754

Ms. Sonn Ahlbrecht  
Consultant  
PO Box 51628  
Ahwatukee, Arizona 85076

Mr. Thomas M. Broderick  
Director, Utilities Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Ms. Janice M. Alward  
Chief, Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Mr. Dwight Nodes  
Chief Administrative Law Judge, Hearing Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

**STAFF REPORT  
UTILITIES DIVISION  
ARIZONA CORPORATION COMMISSION**

**FRANCESCA WATER COMPANY, INC.  
DOCKET NO. W-03945A-16-0044**

**APPLICATION  
FOR  
A PERMANENT RATE INCREASE**

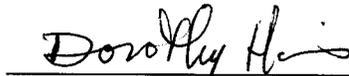
**MAY 9, 2016**

## STAFF ACKNOWLEDGMENT

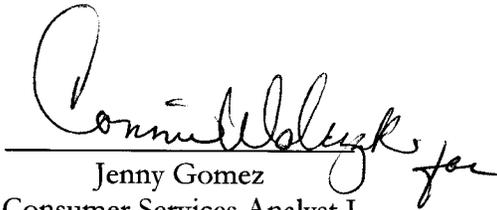
The Staff Report for Francesca Water Company, Inc. ("Company"), Docket No. W-03945A-16-0044, was the responsibility of the Staff members listed below. Brian Smith was responsible for the review and analysis of the Company's application for a permanent rate increase. Dorothy Hains was responsible for the engineering and technical analysis. Jenny Gomez was responsible for reviewing the Arizona Corporation Commission's ("Commission") records on the Company and reviewing customer complaints filed with the Commission.



Brian Smith  
Public Utilities Analyst IV



Dorothy Hains  
Utilities Engineer



Jenny Gomez  
Consumer Services Analyst I

**EXECUTIVE SUMMARY**  
**FRANCESCA WATER COMPANY, INC.**  
**DOCKET NO. W-03945A-16-0044**

Francesca Water Company, Inc. ("Francesca" or "Company") is a class E utility that provides potable water service to approximately 103 customers. The Company's service area is located in Pima County, Arizona approximately 18 miles southwest of Tucson.

Francesca proposed a \$15,000 or a 26.20 percent revenue increase from test year revenue of \$57,247 to \$72,247. The proposed revenue increase would produce an operating income of \$22,385 resulting in a 30.98 percent operating margin. The Company's proposed original cost rate base ("OCRB") is \$74,483. The Company's requested rates would increase the typical residential bill with a median usage of 4,697 gallons from \$35.69 to \$46.06, for an increase of \$10.37, or 29.06 percent.

Staff recommends a \$7,689 or a 13.43 percent revenue increase from test year revenue of \$57,247 to \$64,936. Staff's recommended revenue would produce an operating income of \$16,083, resulting in a 24.77 percent operating margin. Staff's recommended OCRB is \$74,721. Staff's recommended rates would increase the typical residential bill with a median usage of 4,697 gallons from \$35.69 to \$41.01, for an increase of \$5.32, or 14.90 percent.

**STAFF'S RECOMMENDATIONS**

Staff recommends:

1. The Arizona Corporation Commission ("Commission") approve the Staff-recommended rates and charges as shown on Schedule BES-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. Directing the Company, as a compliance item in this case, to notify its customers of the authorized rates and charges approved in this proceeding, and their effective date, in a form acceptable to Staff, by means of an insert in its next regular scheduled billing and to file copies with Docket Control within 10 days of the date notice is sent to customers.
4. The Company use depreciation rates by individual National Association of Regulatory Utility Commissioners ("NARUC") category, as delineated in Exhibit 5. (See §K and Exhibit 5 for a discussion and a tabulation of the recommended rates.)
5. Approval of the Company's proposed and Staff's recommended service line and meter installation charges listed in Table 5. (See §L of report for discussion and details.)
6. Annual testing expenses should be adjusted to \$1,895. (See §J and Tables 4A and 4B for discussion and details.)

7. The Company continue monitoring the Talaway and Amber Ann water systems closely and take action to ensure the water loss remains below 10 percent. Staff further recommends that the Company be required to coordinate the reading of its well meters and individual customer meters on a monthly basis and report this data in its future Annual Reports beginning with the 2016 Annual Report filed in 2017. If the reported water loss is greater than 10 percent, the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to 10 percent or less. If the Company believes it is not cost effective to reduce the water loss to less than 10 percent, it should submit a detailed cost benefit analysis to support its opinion. In no case shall the Company allow water loss to be greater than 15 percent. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item before the Company files its next rate increase application. Any future rate case filed by the Company may be found insufficient if these items are not properly submitted. (See §E for discussion and details.)

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## SCHEDULES

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## ATTACHMENT

Engineering Report .....	A
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**FACT SHEET**

Company: Francesca Water Company, Inc.

Current Rates: Decision No. 74397

Type of Ownership: Arizona for-profit corporation

Location: Approximately 18 miles southwest of Tucson in Pima County

Permanent rate increase application filed: February 10, 2016

Current test year ended: December 31, 2015

Prior test year ended: December 31, 2012

*Metered Rates*

	<u>Company Current Rates</u>	<u>Company Proposed Rates</u>	<u>Staff Recommended Rates</u>
<b>Based on 5/8 x 3/4-inch meter</b>			
<b>Monthly Minimum Charge</b>	\$22.00	\$27.50	\$24.50
<b>Gallons in minimum</b>	0	0	0
<b>Commodity Charge (per 1,000 gallons)</b>			
0 to 3,000 gallons	\$2.30	\$3.50	\$2.90
3,001 to 10,000 gallons	\$4.00	\$4.75	\$4.60
Over 10,000 gallons	\$4.73	\$6.06	\$5.33
<b>Typical residential bill</b>			
(based on median usage of 4,697 gallons)	\$35.69	\$46.06	\$41.01

*Customers*

Number of customers in prior test year ending December 31, 2012: 109

Average number of customers in the current test year ending December 31, 2015: 103

Current test year customers by meter size:

5/8 x 3/4-inch	102
3/4-inch	0
1-inch	1
1 1/2-inch	0
2-inch	0
3-inch	0
4-inch	0
6-inch	0

Seasonal customers: N/A

Customer notification for rate application filed: February 10, 2016

Number of customer complaints concerning rate application filed: 1

Percentage of complaints to customer base: 0.97 percent

## SUMMARY OF FILING

The test year results as adjusted by the Arizona Corporation Commission's ("Commission") Utilities Division Staff ("Staff") show total operating revenues of \$57,247, an operating income of \$9,906, and a Staff adjusted original cost rate base ("OCRB") of \$74,721, as shown in Schedule BES-1.

Francesca Water Company, Inc. ("Francesca" or "Company") proposed a \$15,000 or a 26.20 percent revenue increase from test year revenue of \$57,247 to \$72,247. The proposed revenue increase would produce an operating income of \$22,385 which results in a 30.98 percent operating margin. The Company-proposed fair value rate base ("FVRB"), which is also its OCRB, was \$74,483. The Company's requested rates would increase the typical residential bill with a median usage of 4,697 gallons from \$35.69 to \$46.06, for an increase of \$10.37, or 29.06 percent, as shown on Schedule BES-5.

Staff recommends a \$7,689 or a 13.43 percent revenue increase from test year revenue of \$57,247 to \$64,936. Staff's recommended revenue would produce an operating income of \$16,083, which results in a 24.77 percent operating margin. Staff's recommended FVRB, which is also Staff's OCRB, is \$74,721. Staff's recommended rates would increase the typical residential bill with a median usage of 4,697 gallons from \$35.69 to \$41.01, for an increase of \$5.32, or 14.90 percent as shown on Schedule BES-5.

## BACKGROUND

Francesca is a class E utility that provides potable water service to approximately 103 customers. The Company's service area is located in Pima County, Arizona approximately 18 miles southwest of Tucson. The current rates and charges were authorized in Decision No. 74397, dated March 19, 2014.

During the test year ended December 31, 2015, Francesca provided water service to an average of 103 metered customers, 102 of which are served by 5/8 x 3/4-inch meters and one is served by a 1-inch meter.

On February 10, 2016, Francesca filed an application for a permanent rate increase. On March 10, 2016, Staff issued a Letter of Sufficiency.

## CONSUMER SERVICES

Staff reviewed the Commission's records for the period January 1, 2013 through April 14, 2016, and found the following complaints:

- 2016 – Zero Complaints
- 2015 – One Complaint – Quality of Service
- 2014 – Zero Complaints
- 2013 – One Complaint – Billing

All complaints have been resolved and closed.

## **COMPLIANCE**

The Utilities Division Compliance Section shows no outstanding compliance issues.

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

Francesca's bill format is in compliance with Arizona Administrative Code.

## **ENGINEERING ANALYSIS AND RECOMMENDATIONS**

Staff inspected the Company's plant facilities on March 14, 2016. A complete discussion of Staff's technical findings and recommendations and complete description of the water system are provided in the attached Engineering Report.

### **RATE BASE**

Staff's adjustments increased the Company's rate base by a net increase of \$238, from \$74,483 to \$74,721 as shown on Schedule BES-2, page 1. Details of Staff's adjustments are discussed below.

#### *Plant in Service*

Staff's adjustments decreased the Company's Plant in Service amount by \$986 from \$333,814 to \$332,828 as shown in Schedule BES-2 pages 1 and 2. Staff adjusted Plant in Service based on the attached Engineering Report.

#### *Accumulated Depreciation*

Staff decreased accumulated depreciation by \$1,225 from \$246,018 to \$244,793 as shown on Schedule BES-2, pages 1, 3, and 4. The decrease was based on the Plant in Service adjustment identified above and the additional depreciation expense the Company took in subsequent years.

## **STATEMENT OF OPERATING INCOME**

### *Operating Revenue*

Staff concurs with the Company's test year revenue as shown in Schedule BES-1.

### *Operating Expenses*

Staff's adjustments to operating expenses resulted in a net increase of \$728, from \$46,613 to \$47,341 as shown on Schedule BES-3, page 1. Details of Staff's adjustments are discussed next.

Repairs and Maintenance Expense – Adjustment A increases this account by \$1,091, from \$1,159 to \$2,250 as shown on Schedule BES-3, page 2. Staff's adjustment considers the variable nature of this expense and normalized the expense using the average data from the test year and prior three years.

Water Testing Expense – Adjustment B decreases this expense by \$701, from \$2,596 to \$1,895 as shown on Schedule BES-3, page 2 to reflect Staff's calculated water testing costs described in the attached Engineering Report.

Income Tax Expense – Adjustment C increases this expense by \$766, from \$2,089 to \$2,855, to reflect Staff's calculation of income tax expense as shown on Schedule BES-3, page 2 through 3.

Rate Case Expense – Staff reviewed the Company's proposed Rate Case Expense and the proposed four year amortization period. While Staff concluded that the Company's proposed rate case expense level is reasonable, Staff is addressing the issue related to the Company's proposal to "amortize" rate case expense.

*Amortization of Rate Case Expense Is Technically Inappropriate*

The Company has proposed to amortize rather than normalize rate case expense. While making a distinction between these two accounting conventions is inconsequential in terms of the level of annual revenues Francesca's designated rates target for recovery; only long-term assets, CIAC, and Commission-authorized regulatory assets are "amortized." Under regulatory accounting, the level of rate case expense recoverable annually through rates is more appropriately based upon a "normalized" level of such expense. In ratemaking, a normalized level of expense represents the on-going level of such expense expected or assumed to be incurred within an annual accounting period.

## REVENUE REQUIREMENT

Staff typically develops a utility's revenue requirement using the rate of return on rate base approach. However, based on the Company's low level of investment in rate base, use of the rate base approach to calculate the revenue requirement would not produce sufficient operating margin to allow for possible contingencies. As a result, Staff calculated the Company's revenue requirement by focusing on the Company's cash flow needs.

Staff's review of the Company's cash flow results in Staff recommending total annual revenue of \$64,936, an increase of \$7,689, or 13.43 percent, over test year revenue of \$57,247. This increase, based on Staff recommended rates, yield a cash flow<sup>1</sup> of \$12,026 (after debt service), as shown on Schedule BES-6, line 39. Additionally, this increase also results in an operating margin of 24.77 percent, as shown on Schedule BES-1.

Staff acknowledges that recommending an operating margin as high as 24.77 percent is unusual but reasonable in this case. Identifying an appropriate operating margin is a filing-specific

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<sup>1</sup> Cash flow = operating income plus depreciation expense less principal and interest on loans.

determination and in this situation, Staff believes that recognition of an operating margin this high should promote the Commission's policy of rate change gradualism since use of this higher operating margin should position the Company to delay the need for filing future rate cases.

Staff's total revenue requirement of \$64,936, provides the Company with sufficient cash flow to pay operating expenses, contingencies, and principal, interest, and loan reserve on its existing \$97,000 Water Infrastructure Financing Authority or Arizona ("WIFA") loan. Staff's revenue requirement will allow the Company to meet the minimum 1.2 debt service coverage ("DSC") ratio required by WIFA and allow for contingencies.

## **RATE DESIGN**

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

Francesca's proposed rates would increase the typical residential bill with a median usage of 4,697 gallons from \$35.69 to \$46.06, for an increase of \$10.37, or 29.06 percent, as shown on Schedule BES-5.

Staff's recommended rates would increase the typical residential bill with a median usage of 4,697 gallons from \$35.69 to \$41.01, for an increase of \$5.32, or 14.90 percent as shown on Schedule BES-5.

## **MISCELLANEOUS SERVICE CHARGES**

Establishment Charge – The Company has proposed no change in its current \$40 Establishment Charge. Staff concurs.

Establishment (After Hours) Charge – The Company's current approved Service Charge (After Hours) is \$30. The Company proposes to increase the Service Charge (After Hours) from \$30 to \$50. Staff recommends \$40.

Reconnection (Delinquent) Charge – The Company proposes to increase the Reconnection (Delinquent) Service Charge from \$35 to \$45. Staff recommends \$40, which aligns with the Establishment Charge.

Meter Re-read (If Correct) – The Company has proposed no change in its \$20 Meter Re-read Charge. Staff concurs.

Meter Test (If Correct) – The Company has proposed no change in its \$30 Meter Test Charge. Staff concurs.

NSF Check Charge – The Company has proposed no change in its \$25 NSF Check Charge. Staff concurs.

Deposit – The Company has proposed no change in the Deposit Charge. Staff concurs.

Deposit Interest – The Company has proposed no change in the Deposit Interest Charge. Staff concurs.

Re-Establishment (Within 12 Months) – The Company has proposed no change in its Re-Establishment (Within 12 Months) Charge. Staff concurs.

Deferred Payment (Per Month) – The Company has proposed no change in its Deferred Payment of 1.50 percent per month charge. Staff concurs.

Late Fee (per Month) – The Company has proposed no change in its Late Fee of \$5.00 or 1.5 percent, whichever is greater. Staff concurs.

### **SERVICE LINE AND METER INSTALLATION CHARGES**

Staff has recommended service line and meter installation charges based upon an analysis of costs as discussed in the attached Engineering Report.

### **STAFF'S RECOMMENDATIONS**

Staff recommends:

1. The Commission approve the Staff-recommended rates and charges as shown on Schedule BES-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. Directing the Company, as a compliance item in this case, to notify its customers of the authorized rates and charges approved in this proceeding, and their effective date, in a form acceptable to Staff, by means of an insert in its next regular scheduled billing and to file copies with Docket Control within 10 days of the date notice is sent to customers.
4. The Company use depreciation rates by individual NARUC category, as delineated in Exhibit 5. (See §K and Exhibit 5 for a discussion and a tabulation of the recommended rates.)
5. Approval of the Company's proposed and Staff's recommended service line and meter installation charges listed in Table 5. (See §L of report for discussion and details.)
6. Annual testing expenses should be adjusted to \$1,895. (See §J and Tables 4A and 4B for discussion and details.)

7. The Company continue monitoring the Talaway and Amber Ann water systems closely and take action to ensure the water loss remains below 10 percent. Staff further recommends that the Company be required to coordinate the reading of its well meters and individual customer meters on a monthly basis and report this data in its future Annual Reports beginning with the 2016 Annual Report filed in 2017. If the reported water loss is greater than 10 percent, the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to 10 percent or less. If the Company believes it is not cost effective to reduce the water loss to less than 10 percent, it should submit a detailed cost benefit analysis to support its opinion. In no case shall the Company allow water loss to be greater than 15 percent. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item before the Company files its next rate increase application. Any future rate case filed by the Company may be found insufficient if these items are not properly submitted. (See §E for discussion and details.)

**SUMMARY OF FILING**

	Company as Filed	Staff as Adjusted	Company Proposed	Staff Recommended
Revenues:				
Metered Water Revenue	\$54,252	\$54,252	\$69,252	\$61,941
Unmetered Water Revenue	0	0	0	0
Other Water Revenues	2,995	2,995	2,995	2,995
Total Operating Revenue	<u>\$57,247</u>	<u>\$57,247</u>	<u>\$72,247</u>	<u>\$64,936</u>
Operating Expenses:				
Operation and Maintenance	\$34,923	\$35,313	\$34,923	\$35,313
Depreciation	5,357	5,357	5,357	5,357
Property & Other Taxes	4,244	4,244	4,615	4,244
Income Tax	2,089	2,427	4,967	3,939
Total Operating Expense	<u>\$46,613</u>	<u>\$47,341</u>	<u>\$49,862</u>	<u>\$48,853</u>
Operating Income/(Loss)	<u>\$10,634</u>	<u>\$9,906</u>	<u>\$22,385</u>	<u>\$16,083</u>
Rate Base - O.C.R.B.	\$74,483	\$74,721	\$74,483	\$74,721
Operating Margin	18.58%	17.30%	30.98%	24.77%

NOTE: Operating Margin represents the proportion of funds available to pay interest and other below the line or non-ratemaking expenses.

<b>ORIGINAL COST RATE BASE/FAIR VALUE</b>			
	----- Original Cost -----		
	Company	Adjustment	Staff
Plant in Service	\$333,814	(\$986) A	\$332,828
Less:			
Accum. Depreciation	246,018	(1,225) B	244,793
<b>Net Plant</b>	<b>\$87,796</b>	<b>\$238</b>	<b>\$88,034</b>
Less:			
Advances in Aid of Construction	\$3,640	\$0	\$3,640
Security Deposits	5,301	0	5,301
<b>Total Advances</b>	<b>\$8,941</b>	<b>\$0</b>	<b>\$8,941</b>
Contributions Gross	\$12,300	\$0	\$12,300
Less:			
Amortization of CIAC	4,312	0	4,312
<b>Net CIAC</b>	<b>\$7,988</b>	<b>\$0</b>	<b>\$7,988</b>
<b>Total Deductions</b>	<b>\$16,929</b>	<b>\$0</b>	<b>\$16,929</b>
Plus:			
1/24 Power	\$360	\$0	\$360
1/8 Operation & Maint.	\$3,256	\$0	\$3,256
Inventory	\$0	\$0	\$0
Prepayments	\$0	\$0	\$0
<b>Total Additions</b>	<b>\$3,616</b>	<b>\$0</b>	<b>\$3,616</b>
<b>Rate Base</b>	<b>\$74,483</b>	<b>\$238</b>	<b>\$74,721</b>

*Explanation of Adjustment:*

A - For Rate Base adjustment A, see Sch BES-2, page 2  
B - For Rate Base adjustment B, see Sch BES-2, page 3-4

**PLANT ADJUSTMENT**

Line No.	Acct. No.	Description	Company Exhibit	Adjustment	Staff Adjusted
1	301	Organization Costs	\$1,015	\$0	\$1,015
2	302	Franchise Costs	0	0	0
3	303	Land & Land Rights	10,000	0	10,000
4	304	Structures & Improvements	2,612	0	2,612
5	307	Wells & Springs	38,669	0	38,669
6	310	Power Generation Equipment	0	0	0
7	311	Electric Pumping Equipment	32,294	0	32,294
8	320	Water Treatment Equipment	0	0	0
9	320.1	Water Treatment Plants	0	0	0
10	320.2	Solutions & Feeders	1,456	(986) a	470
11	320.3	Point-of-Use Treatment Devices	0	0	0
12	330	Distribution Reservoirs & Standpipes	0	0	0
13	330.1	Storage Tank	71,342	0	71,342
14	330.2	Pressure Tanks	0	0	0
15	331	Transmission & Distribution Mains	137,091	0	137,091
16	333	Services	23,759	0	23,759
17	334	Meters & Meter Installations	7,073	0	7,073
18	335	Hydrants	0	0	0
19	336	Backflow Prevention Devices	0	0	0
20	339	Other Plant & Misc. Equip.	0	0	0
21	340	Office Furniture & Fixtures	4,000	0	4,000
22	340.1	Computer & Software	1,003	0	1,003
23	341	Transportation Equipment	0	0	0
24	342	Store Equipment	0	0	0
25	343	Tools & Work Equipment	3,000	0	3,000
26	344	Laboratory Equipment	0	0	0
27	345	Power Operated Equipment	0	0	0
28	346	Communications Equipment	500	0	500
29	347	Miscellaneous Equipment	0	0	0
30	348	Other Intangibles	0	0	0
31	105	C.W.I.P.	0	0	0
32		<b>TOTALS</b>	<u>\$333,814</u>	<u>(\$986)</u>	<u>\$332,828</u>

*Explanation of Adjustment:*

a	Solutions & Feeders - Per Company	\$1,456	
	Per Staff	470	<u>(\$986)</u>

Per DR #DH2.3, the Company removed a pellet chlorinator from their water system in 2014 and did not record the retirement.

**RATE BASE ADJUSTMENT TO ACCUMULATED DEPRECIATION**

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED
1	301	Organization Costs	\$0	\$0	\$0
2	302	Franchise Costs	0	0	\$0
3	303	Land & Land Rights	0	0	\$0
4	304	Structures & Improvements	1,432	0	\$1,432
5	307	Wells & Springs	38,669	0	\$38,669
6	310	Power Generation Equipment	0	0	\$0
7	311	Electric Pumping Equipment	21,379	0	\$21,379
8	320	Water Treatment Equipment	0	0	\$0
9	320.1	Water Treatment Plants	0	0	\$0
10	320.2	Solutions & Feeders	677	(1,225)	(\$548)
11	320.3	Point-of-Use Treatment Devices	0	0	\$0
12	330	Distribution Reservoirs & Standpipes	0	0	\$0
13	330.1	Storage Tank	43,241	0	\$43,241
14	330.2	Pressure Tanks	0	0	\$0
15	331	Transmission & Distribution Mains	104,189	0	\$104,189
16	333	Services	23,759	0	\$23,759
17	334	Meters & Meter Installations	7,073	0	\$7,073
18	335	Hydrants	0	0	\$0
19	336	Backflow Prevention Devices	0	0	\$0
20	339	Other Plant & Misc. Equip.	0	0	\$0
21	340	Office Furniture & Fixtures	3,660	0	\$3,660
22	340.1	Computer & Software	(1)	0	(\$1)
23	341	Transportation Equipment	0	0	\$0
24	342	Store Equipment	0	0	\$0
25	343	Tools & Work Equipment	1,440	0	\$1,440
26	344	Laboratory Equipment	0	0	\$0
27	345	Power Operated Equipment	0	0	\$0
28	346	Communications Equipment	500	0	\$500
29	347	Miscellaneous Equipment	0	0	\$0
30	348	Other Intangibles	0	0	\$0
31	105	C.W.I.P.	0	0	\$0
32		Accumulated Depreciation	\$246,018	(\$1,225)	\$244,793

**ACCUMULATED DEPRECIATION ADJUSTMENTS**

Accumulated Depreciation - Per Company	\$246,018
Accumulated Depreciation - Per Staff	<u>\$244,793</u>
Total Adjustment	<u>(\$1,225)</u>

To remove accumulated depreciation on plant retirements.

\$246,018	Per Company
(1,225)	Retirements
\$244,793	Per Staff

**Accumulated Depreciation on Retirements**

Account No.	Plant Description	Amount
320.2	Solutions and Feeders	(1,225)

Accumulated depreciation was reduced by the amount of the retired asset and the amount of depreciation expense taken in the retirement and subsequent years.

**STATEMENT OF TEST YEAR OPERATING INCOME**

Line No.	Acct. No.	Description	[A] Company Exhibit	[B] Staff Adjustments	[C] Staff Adjusted	[D] Staff Adjustments	[E] Staff Recommended
1		Revenues:					
2	461	Metered Water Revenue	\$54,252	\$0	\$54,252	\$7,689	\$61,941
3	460	Unmetered Water Revenue	0	0	0	0	0
4	474	Other Water Revenues	2,995	0	2,995	0	2,995
5		Total Operating Revenue	\$57,247	\$0	\$57,247	\$7,689	\$64,936
6							
7		Operating Expenses:					
8	601	Salaries and Wages	\$0	\$0	\$0	0	\$0
9	610	Purchased Water	0	0	0	0	0
10	615	Purchased Power	8,633	0	8,633	0	8,633
11	618	Chemicals	193	0	193	0	193
12	620	Repairs and Maintenance	1,159	1,091 A	2,250	0	2,250
13	621	Office Supplies and Expense	1,598	0	1,598	0	1,598
14	630	Outside Services	14,843	0	14,843	0	14,843
15	635	Water Testing	2,596	(701) B	1,895	0	1,895
16	641	Rents	0	0	0	0	0
17	650	Transportation Expenses	1,389	0	1,389	0	1,389
18	657	Insurance - General Liability	1,433	0	1,433	0	1,433
19	659	Insurance - Health and Life	0	0	0	0	0
20	666	Regulatory Commission Expense - Rate Case	1,240	0	1,240	0	1,240
21	675	Miscellaneous Expense	1,791	0	1,791	0	1,791
22	403	Depreciation Expense	5,357	0	5,357	0	5,357
23	408	Taxes Other Than Income	0	0	0	0	0
24	408.11	Property Taxes	4,244	0	4,244	0	4,244
25	670	Bad Debt Expense	0	0	0	0	0
26	409	Income Tax	2,089	338 C	2,427	1,513	3,939
27	427.1	Security Deposit Interest	48	0	48	0	48
28		Total Operating Expenses	\$46,613	\$728	\$47,341	\$1,513	\$48,853
29							
30							
31		<b>OPERATING INCOME/(LOSS)</b>	<b>\$10,634</b>	<b>(\$728)</b>	<b>\$9,906</b>	<b>\$6,176</b>	<b>\$16,083</b>
32							
33		Other Income/(Expense):					
34	419	Interest and Dividend Income	\$0	\$0	\$0		\$0
35	421	Non-Utility Income	0	0	0		0
36	427	Interest Expense	2,108	0	2,108		2,108
37	4XX	Reserve/Replacement Fund Deposit	0	0	0		0
38	426	Miscellaneous Non-Utility Expense	0	0	0		0
39		Total Other Income/(Expense)	(\$2,108)	\$0	(\$2,108)	\$0	(\$2,108)
40							
41		<b>NET INCOME/(LOSS)</b>	<b>\$8,526</b>	<b>(\$728)</b>	<b>\$7,798</b>	<b>\$6,176</b>	<b>\$13,975</b>

<b>STAFF ADJUSTMENTS</b>
--------------------------

A	REPAIRS AND MAINTENANCE - Per Company	\$1,159	
	Per Staff	<u>2,250</u>	<u>\$1,091</u>
	Staff normalized Repairs and Maintenance expense.		
B	WATER TESTING - Per Company	\$2,596	
	Per Staff	<u>1,895</u>	<u>(\$701)</u>
	Staff adjusted Water Testing Expense based on the attached Engineer's report.		
C	INCOME TAX - Per Company	\$2,089	
	Per Staff	<u>2,427</u>	<u>\$338</u>

See Schedule BES-3 Page 3

**Calculation of Income Tax**

LINE NO.	DESCRIPTION	[A]	[B]
	<i>Calculation of Income Tax:</i>		STAFF
		<u>Test Year</u>	<u>Recommended</u>
1	Revenue (Schedule BES-1)	\$57,247	\$64,936
2	Operating Expenses Excluding Income Taxes	44,914	44,914
3			
4	Arizona Taxable Income (L1 - L2)	\$12,333	\$20,022
5	Arizona State Income Tax Rate	5.5000%	5.5000%
6	Arizona Income Tax (L4 * L5)	\$678	\$1,101
7	Federal Taxable Income (L4 - L6)	11,655	18,921
8	Federal Tax on First Income Bracket (\$1 - \$50,000) @ 15%	1,748	2,838
9	Federal Tax on Second Income Bracket (\$50,001 - \$75,000) @ 25%	0	0
10	Federal Tax on Third Income Bracket (\$75,001 - \$100,000) @ 34%	0	0
11	Federal Tax on Fourth Income Bracket (\$100,001 - \$335,000) @ 39%	0	0
12	Federal Tax on Fifth Income Bracket (\$335,001 - \$10,000,000) @ 34%	0	0
13	Total Federal Income Tax	\$1,748	\$2,838
14	Combined Federal and State Income Tax (L6 + L13)	\$2,427	\$3,939
15			
16	Applicable Federal Income Tax Rate ((Col. [B], L13 - Col. [A], L13) / (Col. [B], L7 - Col. [A], L7))		15.00%

**RATE DESIGN**

Monthly Usage Charge	Present Rates	Company Proposed Rates	Staff Recommended Rates
5/8" x 3/4" Meter	\$22.00	\$27.50	\$24.50
3/4" Meter	30.00	41.25	36.75
1" Meter	50.00	68.75	61.25
1½" Meter	100.00	137.50	122.50
2" Meter	160.00	220.00	196.00
3" Meter	320.00	440.00	392.00
4" Meter	500.00	687.50	612.50
6" Meter	1,000.00	1,375.00	1,225.00
<b>Commodity Rates</b>			
<b>5/8 x 3/4" &amp; 3/4" Meter - Residential</b>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 3,000 Gallons	\$2.30	\$3.50	\$2.90
From 3,001 to 10,000 Gallons	4.00	4.75	4.60
Over 10,000 Gallons	4.73	6.06	5.33
<b>3/4" Meter - Commercial &amp; Industrial</b>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 10,000 Gallons	\$4.35	\$4.75	\$4.55
Over 10,000 Gallons	6.70	6.06	6.90
<b>1" - Residential, Commercial &amp; Industrial</b>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 17,000 Gallons	\$4.35	\$4.75	\$4.55
Over 17,000 Gallons	6.70	6.06	6.90
<b>1½" - Residential, Commercial &amp; Industrial</b>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 37,000 Gallons	\$4.35	\$4.75	\$4.55
Over 37,000 Gallons	6.70	6.06	6.90
<b>2" - Residential, Commercial &amp; Industrial</b>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 61,000 Gallons	\$4.35	\$4.75	\$4.55
Over 61,000 Gallons	6.70	6.06	6.90
<b>3" - Residential, Commercial &amp; Industrial</b>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 127,000 Gallons	\$4.35	\$4.75	\$4.55
Over 127,000 Gallons	6.70	6.06	6.90
<b>4" - Residential, Commercial &amp; Industrial</b>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 200,000 Gallons	\$4.35	\$4.75	\$4.55
Over 200,000 Gallons	6.70	6.06	6.90
<b>6" - Residential, Commercial &amp; Industrial</b>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 400,000 Gallons	\$4.35	\$4.75	\$4.55
Over 400,000 Gallons	6.70	6.06	6.90

**RATE DESIGN**

Service Line and Meter Installation Charges	Current Rates			Company Proposed Rates			Staff Recommended Rates		
	Service Line	Meter Charge	Total Charge	Service Line	Meter Charge	Total Charge	Service Line	Meter Charge	Total Charge
5/8" x 3/4" Meter	\$430.00	\$130.00	\$560.00	\$490.00	\$132.00	\$622.00	\$490.00	\$132.00	\$622.00
3/4" Meter	430.00	230.00	660.00	490.00	233.00	723.00	490.00	233.00	723.00
1" Meter	480.00	290.00	770.00	547.00	293.00	840.00	547.00	293.00	840.00
1½" Meter	535.00	500.00	1,035.00	610.00	506.00	1,116.00	610.00	506.00	1,116.00
2" Turbine Meter	815.00	1,020.00	1,835.00	927.00	1,031.00	1,958.00	927.00	1,031.00	1,958.00
2" Compound Meter	815.00	1,865.00	2,680.00	927.00	1,884.00	2,811.00	927.00	1,884.00	2,811.00
3" Turbine Meter	1,030.00	1,645.00	2,675.00	1,171.00	1,662.00	2,833.00	1,171.00	1,662.00	2,833.00
3" Compound Meter	1,150.00	2,520.00	3,670.00	1,308.00	2,546.00	3,854.00	1,308.00	2,546.00	3,854.00
4" Turbine Meter	1,460.00	2,620.00	4,080.00	1,661.00	2,647.00	4,308.00	1,661.00	2,647.00	4,308.00
4" Compound Meter	1,640.00	3,595.00	5,235.00	1,866.00	3,632.00	5,498.00	1,866.00	3,632.00	5,498.00
6" Turbine Meter	2,180.00	4,975.00	7,155.00	2,479.00	5,026.00	7,505.00	2,479.00	5,026.00	7,505.00
6" Compound Meter	2,300.00	6,870.00	9,170.00	2,615.00	6,939.00	9,554.00	2,615.00	6,939.00	9,554.00
Over 6"	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost
<b>Service Charges</b>									
Establishment			\$40.00			\$40.00			\$40.00
Service Charge (After Hours)			30.00			50.00			40.00
Reconnection (Delinquent)			35.00			45.00			40.00
Meter Test (If Correct)			30.00			30.00			30.00
Deposit			*			*			*
Deposit Interest			*			*			*
Re-Establishment (Within 12 Months)			**			**			**
NSF Check			25.00			25.00			25.00
Deferred Payment			1.50%			1.50%			1.50%
Meter Re-Read (If Correct)			20.00			20.00			20.00
Late Fec			***			***			***
* Per Commission Rule A.A.C. R-14-2-403(B).									
** Months off system times the monthly minimum per Commission Rule A.A.C. R14-2-403(D).									
*** \$5.00 or 1.5 percent, whichever is greater.									

<b>TYPICAL BILL ANALYSIS</b>
General Service 5/8 x 3/4-Inch Meter

Average Number of Customers: 102

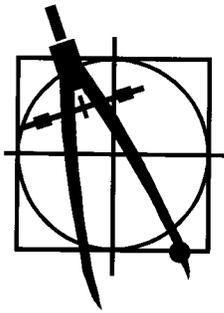
Company Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	6,259	\$ 41.93	\$ 53.48	\$ 11.54	27.5%
Median Usage	4,697	\$ 35.69	\$ 46.06	\$ 10.37	29.06%
<u>Staff Recommend</u>					
Average Usage	6,259	\$ 41.93	\$ 48.19	\$ 6.26	14.9%
Median Usage	4,697	\$ 35.69	\$ 41.01	\$ 5.32	14.90%

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

Gallons	Present	Company Proposed	%	Staff Recommended	%
Minimum Charge	\$22.00	\$27.50	25.0%	\$24.50	11.36%
1st Tier Rate	\$2.30	\$3.50	52.2%	\$2.90	26.09%
1st Tier Break-over	3,000	3,000	0.0%	3,000	0.00%
2nd Tier Rate	\$4.00	\$4.75	18.8%	\$4.60	15.00%
2nd Tier Break-over	10,000	10,000	0.0%	10,000	0.00%
3rd Tier Rate	\$4.73	\$6.06	28.1%	\$5.33	12.68%
<u>Consumption</u>	<u>Rates</u>	<u>Rates</u>	<u>Increase</u>	<u>Rates</u>	<u>Increase</u>
0	\$22.00	\$27.50	25.0%	\$24.50	11.4%
1,000	24.30	31.00	27.6%	27.40	12.8%
2,000	26.60	34.50	29.7%	30.30	13.9%
3,000	28.90	38.00	31.5%	33.20	14.9%
4,000	32.90	42.75	29.9%	37.80	14.9%
5,000	36.90	47.50	28.7%	42.40	14.9%
6,000	40.90	52.25	27.8%	47.00	14.9%
7,000	44.90	57.00	26.9%	51.60	14.9%
8,000	48.90	61.75	26.3%	56.20	14.9%
9,000	52.90	66.50	25.7%	60.80	14.9%
10,000	56.90	71.25	25.2%	65.40	14.9%
15,000	80.55	101.55	26.1%	92.05	14.3%
20,000	104.20	131.85	26.5%	118.70	13.9%
25,000	127.85	162.15	26.8%	145.35	13.7%
50,000	246.10	313.65	27.4%	278.60	13.2%
75,000	364.35	465.15	27.7%	411.85	13.0%
100,000	482.60	616.65	27.8%	545.10	13.0%
125,000	600.85	768.15	27.8%	678.35	12.9%
150,000	719.10	919.65	27.9%	811.60	12.9%
175,000	837.35	1,071.15	27.9%	944.85	12.8%
200,000	955.60	1,222.65	27.9%	1,078.10	12.8%

<b>Cash Flow</b>			Staff	Staff
Line			Adjusted	Recommended
<b>No.</b>	<b>Cash Flow From Operations</b>			
1	<b>Operating Revenue</b>			
2	461 Metered Water Revenue		\$54,252	\$61,941
3	460 Unmetered Water Revenue		\$0	\$0
4	474 Other Water Revenues		\$2,995	\$2,995
5	<b>Total Operating Rev:</b>		<u>\$57,247</u>	<u>\$64,936</u>
6				
7	<b>Operating Expenses</b>			
8	601 Salaries and Wages		\$0	\$0
9	610 Purchased Water		\$0	\$0
10	615 Purchased Power		\$8,633	\$8,633
11	618 Chemicals		\$193	\$193
12	620 Repairs and Maintenance		\$2,250	\$2,250
13	621 Office Supplies and Expense		\$1,598	\$1,598
14	630 Outside Services		\$14,843	\$14,843
15	635 Water Testing		\$1,895	\$1,895
16	641 Rents		\$0	\$0
17	650 Transportation Expenses		\$1,389	\$1,389
18	657 Insurance - General Liability		\$1,433	\$1,433
19	659 Insurance - Health and Life		\$0	\$0
20	666 Regulatory Commission Expense - Rate Case		\$1,240	\$1,240
21	675 Miscellaneous Expense		\$1,791	\$1,791
22	403 Depreciation Expense		\$5,357	\$5,357
23	408 Taxes Other Than Income		\$0	\$0
24	408.11 Property Taxes		\$4,244	\$4,244
25	670 Bad Debt Expense		\$0	\$0
26	409 Income Tax		\$2,427	\$3,939
27	427.1 Security Deposit Interest		\$48	\$48
28	<b>Total Operating Expense</b>		<u>\$47,341</u>	<u>\$48,853</u>
29				
30	<b>Operating Income</b>		<u>\$9,906</u>	<u>\$16,083</u>
31				
32	<b>Additions to Cash</b>			
33	Depreciation		\$5,357	\$5,357
34				
35	<b>Net Cash from Operations</b>		<u>\$15,263</u>	<u>\$21,440</u>
36				
37	<b>Annual Debt Service Amount<sup>1</sup></b>		\$9,414	\$9,414
38				
39	<b>Cash Available for Contingencies</b>		<u>\$5,849</u>	<u>\$12,026</u>
40				
41	<b>DSC [L26 + L35] ÷ [L37]</b>		1.88	2.70

Footnote 1: Annual Debt Service Amount includes the principle, interest, and loan reserve required by WIFA.



**Engineering Report  
Francesca Water Company  
By Dorothy Hains, P. E.  
Docket No. W-03945A-16-0044 (Rates)**

**April 15, 2016**

**EXECUTIVE SUMMARY**

**Recommendations:**

1. Staff recommends that Francesca Water Company ("Francesca" or "Company") use the depreciation rates by individual category as established by the National Association of Regulatory Utility Commissioners ("NARUC") and as delineated in Exhibit 5. (See §K and Exhibit 5 for a discussion and a tabulation of the recommended rates.)
2. Staff recommends approval of the Company's proposed and Staff's recommended service line and meter installation charges listed in Table 5. (See §L of report for discussion and details.)
3. Staff recommends that annual testing expenses should be adjusted to \$1,895. (See §J and Tables 4A and 4B for discussion and details.)
4. Staff recommends that the Company continue monitoring the Talaway and Amber Ann water systems closely and take action to ensure that water loss remains below 10 percent. Staff further recommends that the Company be required to coordinate the reading of its well meters and individual customer meters on a monthly basis and report this data in its future Annual Reports beginning with the 2016 Annual Report to be filed in 2017. If the reported water loss is greater than 10 percent, the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to 10 percent or less. If the Company believes it is not cost effective to reduce the water loss to less than 10 percent, it should submit a detailed cost benefit analysis to support its opinion. In no case shall the Company allow water loss to be greater than 15 percent. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item before the Company files its next rate increase application. Any future rate case filed by the Company may be found insufficient if these items are not properly submitted. (See §E for discussion and details.)

**Conclusions:**

1. Arizona Department of Environmental Quality reported that the Talaway Public Water System (PWS No. 10-283) and the Amber Ann Public Water System (PWS No. 10-317) have no major deficiencies and are 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 §G of report for discussion and details.)

2. Francesca is located in Arizona Department of Water Resources ("ADWR") Tucson Active Management Area ("AMA"). ADWR reported that Francesca is currently compliant with departmental requirements governing water providers and/or community water systems. (See §H of report for discussion and details.)
3. Staff concludes that Francesca's water systems have adequate production and storage capacities to serve existing customers and reasonable growth. (See §C of report for discussion and details.)
4. Francesca has an approved Cross Connection Tariff, Curtailment Tariff and Best Management Practices Tariff on file with the Commission. (See §K of report for discussion and details.)
5. Based on its field inspection and the Company's Response to Staff's Data Request No. DH2.3, Staff has determined that the pellet chlorinators are not currently used and useful to the Company's provision of service. The subject pellet chlorinators were removed from service in 2014. The original cost for this plant was \$986.33.

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## **A. PURPOSE OF REPORT AND INTRODUCTION**

This report was prepared in response to the rate application filed by Francesca Water Company, Inc. ("Francesca" or "Company") with the Arizona Corporation Commission ("ACC" or "Commission") on February 10, 2016. On March 10, 2016, Commission Utilities Division Staff ("Staff") informed the Company that the application met the sufficiency requirements outlined in the Arizona Administrative Code R-14-2-103.B.7. Staff classified the Company as a Class E utility. Staff's engineering review and analysis of the rate application is presented in this report. An inspection and evaluation of the Company's water systems was conducted by Dorothy Hains, Staff Engineer, accompanied by Brian Smith (Staff Accountant) and Company representative, Matt England, Field Technician on March 14, 2016.

## **B. LOCATION OF SYSTEM**

The Company is located near Three Points/Robles Junction in Pima County, approximately 18 miles southwest of the City of Tucson. Attached Exhibits 1 and 2 detail the location of the Company's service area in relation to other Commission regulated companies in Pima County and in the immediate area. The Company serves an area approximately one-half of one square mile in size that includes a portion of Sections 1 and 13 in Township 16 South, Range 10 East.

## **C. DESCRIPTION OF SYSTEMS**

### *I. System Description*

The Company operates two separate water systems: The Talaway Water System ("Talaway") and the Amber Ann Water System ("Amber Ann"). Arizona Department of Environmental Quality ("ADEQ") assigned Public Water System ("PWS") Identification No. 10-283 to the Talaway system and PWS No. 10-317 to the Amber Ann system.

#### **A. Talaway Water System**

The Talaway system consists of one well, one storage tank, a booster pump station and a distribution system serving approximately 69 metered customers during the test year ending December 2015. Detailed plant items are listed as follows:

**Table 1A Plant in Francesca Water – Talaway**

Active Well in PWS #10-0283

ADWR No.	Year Drilled	Casing Size (inches)	Well Depth (ft.)	Well Meter Size (inches)	Pump (HP)	Pump Yield (GPM)	Location
55-508617	1984	8	550	2	10	25	East lot of 14456 Talaway

Active Storage, Pumping in PWS #10-0283

Location	Structure or equipment	Capacity
East lot of 14456 Talaway	Storage Tank	One 40,000 gal
East lot of 14456 Talaway	Pressure Tank	One 3,000 gal
East lot of 14456 Talaway	Booster pump station	One 3-HP & one 5-HP

Distribution Mains in PWS #10-0283 CC&N Area

Diameter (inches)	Material	Length (feet)
2	polyvinyl chloride ("PVC")	1,917
3	PVC	329
4	PVC	4,596
6	PVC	2,987

Meters in PWS #10-0283 CC&N Area

Size (inches)	Quantity
5/8 x 3/4	91
3/4	N/A
1	N/A
1 1/2	N/A
2	N/A
3 (comp)	N/A

**B. Amber Ann Water System**

The Amber Ann system consists of one well, one storage tank, a booster pump station and a distribution system serving approximately 32 metered customers during the test year ending December 2012. Detailed plant items are listed as follows:

**Table 1B Plants in Francesca Water – Amber Ann**

Active Well in PWS #10-317

ADWR No.	Year Drilled	Casing Size (inches)	Well Depth (ft)	Well Meter Size (inches)	Pump (HP)	Pump Yield (GPM)	Location
55-535748	1992	10	805	2	10	25	Approximately two miles south from Talaway Well, Near Scotland Rd/Cherokee Rd

Active Storage, Pumping in PWS #10-317

Location	Structure or equipment	Capacity
Near Scotland Rd/Cherkee Rd	Storage Tank	One 25,000 gal
Near Scotland Rd/Cherkee Rd	Pressure Tank	One 2,000 gal
Near Scotland Rd/Cherkee Rd	Booster pump station	Two 3-HP

Distribution Mains in PWS #10-317 CC&N Area

Diameter (inches)	Material	Length (feet)
2	polyvinyl chloride ("PVC")	1,250
4	PVC	2,200
6	PVC	1,500

Meters in PWS #10-317 CC&N Area

Size (inches)	Quantity
5/8 x 3/4	40
3/4	N/A
1	2
1 1/2	N/A
2	N/A
3 (comp)	N/A

The majority of the Company's customers are residential. Exhibit 3 is schematic drawing of the two water systems.

II. *System Analysis*

A. Talaway Water System

The Talaway system has a total source capacity of 25 gallons per minute (“GPM”) and storage capacity of 40,000 gallons. Staff concludes that the system has adequate production and storage capacity to serve existing customers and reasonable growth.

B. Amber Ann Water System

The Amber Ann has a total source capacity of 25 GPM and storage capacity of 25,000 gallons. Staff concludes that the system has adequate production and storage capacity to serve existing customers and reasonable growth.

**D. WATER USAGE**

A. Talaway Water System

Table 2A summarizes water usage in the Talaway service area. Exhibit 4A is a graph that shows water consumption data in gallons per day (“GPD”) per connection for Talaway during the test year.

**Table 2A Water Usage in Talaway Service Area**

Month	Number of Customers	Water Sold (in gallons)	Water pumped (in gallons)	Water purchased (in gallons)	Daily Average (in GPD/customer)
Jan 15	71	338,000	375,000	0	154
Feb 15	71	342,000	382,000	0	172
Mar 15	71	291,000	320,000	0	132
Apr 15	71	488,000	525,000	0	229
May 15	71	505,000	534,000	0	229
Jun 15	71	578,000	629,000	0	271
Jul 15	70	633,000	680,000	0	292
Aug 15	70	748,000	728,000	0	345
Sep 15	70	473,000	602,000	0	225
Oct 15	69	437,000	456,000	0	204
Nov 15	69	344,000	384,000	0	166
Dec 15	69	383,000	424,000	0	185
total		5,560,000	6,039,000	0	
Average					217

Based on information provided by the Company, during the test year Talaway experienced an overall daily average use of 217 GPD per customer, a high use of 345 GPD per customer, and a low use of 132 GPD per customer. The highest total monthly use occurred in August, when a total of 748,000 gallons were sold to 70 customers. The lowest total monthly use occurred in March, when 291,000 gallons were sold to 71 customers.

B. Amber Ann Water system

Table 2B summarizes water usage in the Amber Ann service area. Exhibit 4B is a graph that shows water consumption data in GPD per connection for Amber Ann during the test year.

**Table 2B Water Usage in Amber Ann Service Area**

Month	Number of Customers	Water Sold (in gallons)	Water pumped (in gallons)	Water purchased (in gallons)	Daily Average (in GPD/customer)
Jan 15	33	146,000	158,000	0	143
Feb 15	32	160,000	175,000	0	179
Mar 15	32	167,000	187,000	0	168
Apr 15	32	229,000	251,000	0	239
May 15	32	215,000	231,000	0	217
Jun 15	32	208,000	218,000	0	217
Jul 15	32	211,000	226,000	0	213
Aug 15	33	229,000	243,000	0	224
Sep 15	33	182,000	201,000	0	184
Oct 15	33	176,000	190,000	0	172
Nov 15	33	154,000	163,000	0	156
Dec 15	32	142,000	156,000	0	143
total		2,219,000	2,399,000	0	
Average					188

Based on information provided by the Company, during the test year the Amber Ann system experienced an overall daily average use of 188 GPD per customer, a high use of 239 GPD per customer, and a low use of 143 GPD per customer. The highest total monthly use occurred in April and August, when a total of 229,000 gallons were sold to 32 customers (in April) and 33 customers (in August). The lowest total monthly use occurred in December, when 142,000 gallons were sold to 32 customers.

E. **NON-ACCOUNT WATER**

Non-account water should be 10 percent or less and never more than 15 percent. It is important to be able to reconcile the difference between the water sold and the water produced by the source. A water balance will allow a water company to identify water and revenue losses due to leakage, theft, and flushing, etc.

A. Talaway Water System

The calculated water loss during the test year in the Talaway was 7.93 percent which was within Staff's recommended 10 percent threshold.

**B. Amber Ann Water System**

The calculated water loss during the test year in the Amber Ann system was 7.5 percent which was within Staff's recommended 10 percent threshold.

The water usage in the Talaway system during the test year indicated that the Company had to estimate monthly water pumped data for four times due to well meter malfunctions. Because there were no reliable well pump data for 33 percent of its annual record, Staff cannot conclude that the water loss problem has been corrected in Talaway as ordered in Decision No. 74397. Via the Response to Staff's Data Request No. DH2.8, the Company believes that the meter malfunction issue was resolved when a new Y-strainer was installed. However, there is no data to support the Company's statement. Therefore, Staff recommends that the Company continue monitoring the Talaway and Amber Ann systems closely and take action to ensure the water loss remains below 10 percent. Staff further recommends that the Company be required to coordinate the reading of its well meters and individual customer meters on a monthly basis and report this data in its future Annual Reports beginning with 2016 Annual Report filed in 2017. If the reported water loss is greater than 10 percent, the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to 10 percent or less. If the Company believes it is not cost effective to reduce the water loss to less than 10 percent, it should submit a detailed cost benefit analysis to support its opinion. In no case shall the Company allow water loss to be greater than 15 percent. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item before the Company files its next rate increase application. Any future rate case filed by the Company may be found insufficient if these items are not properly submitted.

**F. GROWTH PROJECTION**

Based on the service meter data contained in the Company's annual reports, there is no growth or negative growth in both the Talaway and Amber Ann.

**G. ADEQ COMPLIANCE**

Staff received a compliance status report from ADEQ dated March 10, 2016, in which ADEQ reported that the Talaway (PWS No. 10-283) and the Amber Ann (PWS No. 10-317) have no major deficiencies and are 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.

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

Francesca is located in the Pima Active Management Area ("AMA") as designated by ADWR. Staff received a Compliance Status Reports from ADWR for Talaway and Amber Ann on February 17, 2016. ADWR reported that Francesca is compliant with departmental requirements governing water providers and/or community water systems.

**I. ACC COMPLIANCE**

A check of the Utilities Division Compliance Section (“Compliance Section”) database indicated that Francesca has no delinquent compliance items (Per status check dated February 25, 2016).

**J. WATER TESTING EXPENSES**

Francesca proposed a water testing expense of \$2,596<sup>1</sup>. Francesca is subject to mandatory participation in the ADEQ Monitoring Assistance Program (“MAP”). Staff calculated the Company’s testing expense based on the following assumptions:

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

Water testing expenses should be adjusted to Staff’s annual expense amount of **\$1,895** shown in Tables 4A & 4B below.

**Table 4A Water Testing Cost (Talaway Water System)**

Monitoring – 1 well (Tests per 3 years, unless noted.)	Cost per test	No. of tests per three year period	Total cost per three year period	Annual Cost
Bacteriological – monthly	\$20 <sup>1</sup>	36	\$720	\$240
Inorganics – Priority Pollutants	\$300	MAP	MAP	MAP
Radiochemical – (1/ 4 yr.)	\$60	1	MAP	MAP
Phase II and V:				
IOC’s, SOC’s, VOC’s	\$2,805	1/3	MAP	MAP
Nitrites	\$25	1/3	MAP	MAP
Nitrates – annual	\$25	3	MAP	MAP

<sup>1</sup> \$2,596 includes multiple years of annual MAP expenses which is incorrect.

Asbestos – per 9 years	\$180	1/3	MAP	MAP
Lead & Copper – annual*	\$33 <sup>1</sup>	5	\$165	\$55
TTHM/HHAs	\$265 <sup>1</sup>	3	\$795	\$265
MAP Fee				\$422.19
Total				<b>\$982.19</b>

Notes: 1. Prices are coded by Turner Laboratories, Inc. Turner Lab charges \$155/one halo acetic acids sample and \$110/one TTHM samples.

**Table 4B Water Testing Cost (Amber Ann Water System)**

Monitoring – 1 well (Tests per 3 years, unless noted.)	Cost per test	No. of tests per three year period	Total cost per three year period	Annual Cost
Bacteriological – monthly	\$20 <sup>1</sup>	36	\$720	\$240
Inorganics – Priority Pollutants	\$300	MAP	MAP	MAP
Radiochemical – (1/ 4 yr.)	\$60	1/2	MAP	MAP
Phase II and V:				
IOC's, SOC's, VOC's	\$2,805	1	MAP	MAP
Nitrites	\$25	1/3	MAP	MAP
Nitrates – annual	\$25	1	MAP	MAP
Asbestos – per 9 years	\$180	1/3	MAP	MAP
Lead & Copper – annual*	\$33 <sup>1</sup>	5	\$165	\$55
TTHM/HHAs	\$265 <sup>1</sup>	3	\$795	\$265
MAP Fee				\$352.80
Total				<b>\$912.8</b>

Notes: 1. Prices are coded by Turner Laboratories, Inc. Turner Lab charges \$155 per halo acetic acids sample and \$110 per TTHM sample.  
The sum of \$982.19 and \$912.8 is \$1,895 (rounded).

**K. DEPRECIATION RATES**

Staff recommends that the depreciation rates presented in Figure 6 by individual National Association of Regulatory Utility Commissioners category be used on a going forward basis.

**L. OTHER ISSUES**

*I. Service Line and Meter Installation Charges*

Separate service line and meter installation charges were proposed by the Company. The

Company's proposed charges are within Staff's typical range of rates for service line and meter installation charges. Therefore, Staff recommends approval of the Company's proposed charges. The charges listed in Table 5 under the columns labeled "Staff's recommended" should be adopted.

**Table 5 Service Line and Meter Installation Charges (Francesca)**

Meter Size	Current Service Line Charges (Decision #74397)	Current Meter & Charges (Decision #74397)	Current Total Meter & Service Line Installation Charges (Decision #74397)	Proposed Service Line Charges	Proposed Meter Charges	Proposed Total installation Charge	Staff Recommendation (Service Line installation charge)	Staff Recommendation (Meter charges)	Staff Recommended total charges
5/8 x 3/4-inch	\$430	\$130	\$560	\$490	\$132	\$622	\$490	\$132	\$622
3/4-inch	\$430	\$230	\$660	\$490	\$233	\$723	\$490	\$233	\$723
1-inch	\$480	\$290	\$770	\$547	\$293	\$840	\$547	\$293	\$840
1½-inch	\$535	\$500	\$1,035	\$610	\$506	\$1,116	\$610	\$506	\$1,116
2-inch (Turbine)	\$815	\$1,020	\$1,835	\$927	\$1,031	\$1,958	\$927	\$1,031	\$1,958
2-inch (Compound)	\$815	\$1,865	\$2,680	\$927	\$1,884	\$2,811	\$927	\$1,884	\$2,811
3-inch (Turbine)	1,030	\$1,645	\$2,675	\$1,171	\$1,662	\$2,833	\$1,171	\$1,662	\$2,833
3-inch (Compound)	\$1,150	\$2,520	\$3,670	\$1,308	\$2,546	\$2,854	\$1,308	\$2,546	\$2,854
4-inch (Turbine)	\$1,460	\$2,620	\$4,080	\$1,661	\$2,647	\$4,308	\$1,661	\$2,647	\$4,308
4-inch (Compound)	\$1,640	\$3,595	\$5,235	\$1,866	\$3,632	\$5,498	\$1,866	\$3,632	\$5,498
6-inch (Turbine)	\$2,180	\$1,975	\$7,155	\$2,479	\$5,026	\$7,505	\$2,479	\$5,026	\$7,505
6-inch (Compound)	\$2,300	\$6,870	\$9,170	\$2,615	\$6,939	\$9,554	\$2,615	\$6,939	\$9,554
Over 6-inch	At cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost

*II. Tariffs*

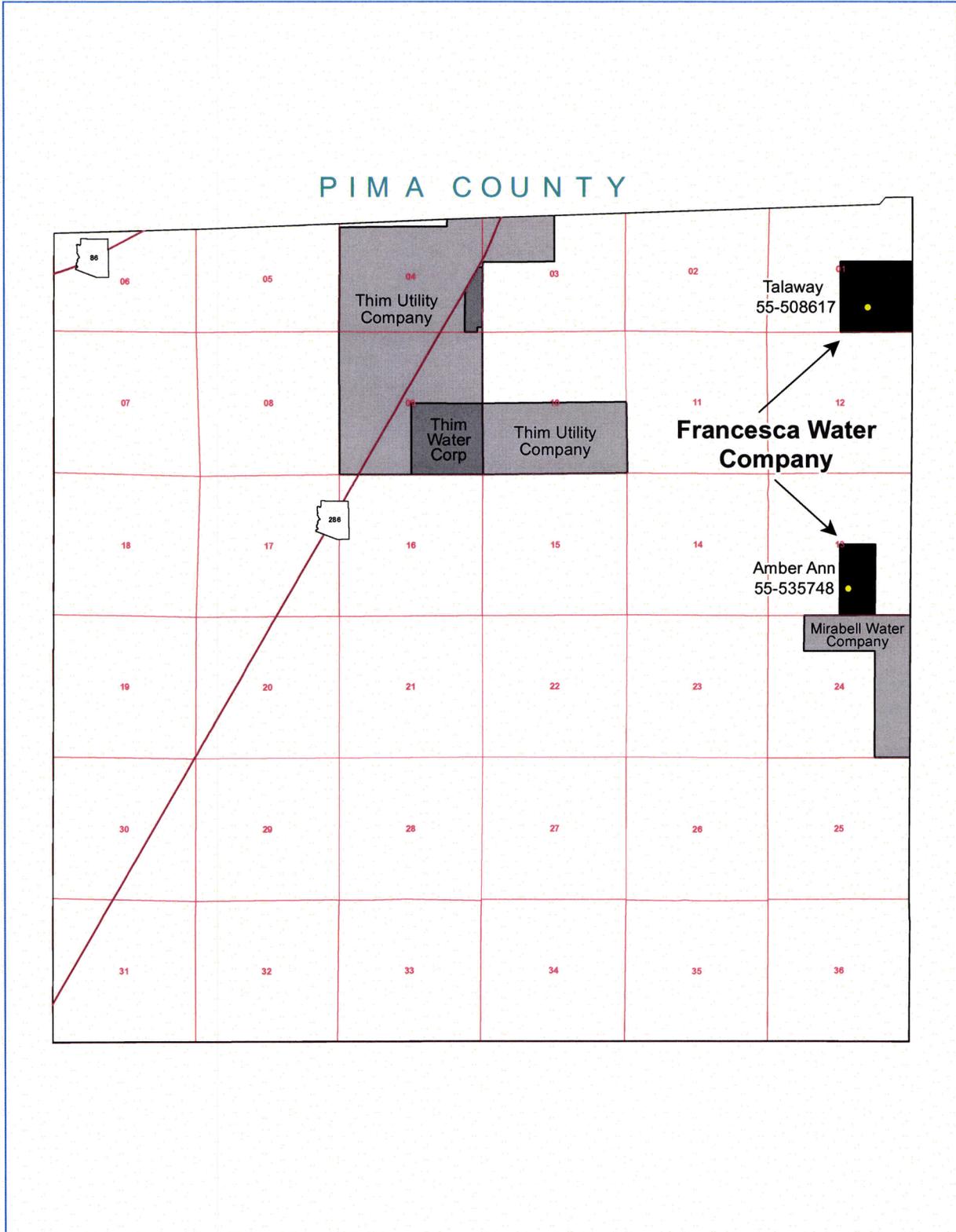
The Company has an approved Curtailment Tariff, Cross Connection/Backflow Tariff and Best Management Practices Tariff on file with the Commission.

*III. Plant Not in Use*

Based on its field inspection and the Company's Response to Staff's Data Request No. DH2.3, Staff has determined that the pellet chlorinators are not currently used and useful to the Company's provision of service. The subject pellet chlorinators were removed from service in 2014. The original cost for this plant was \$986.33.

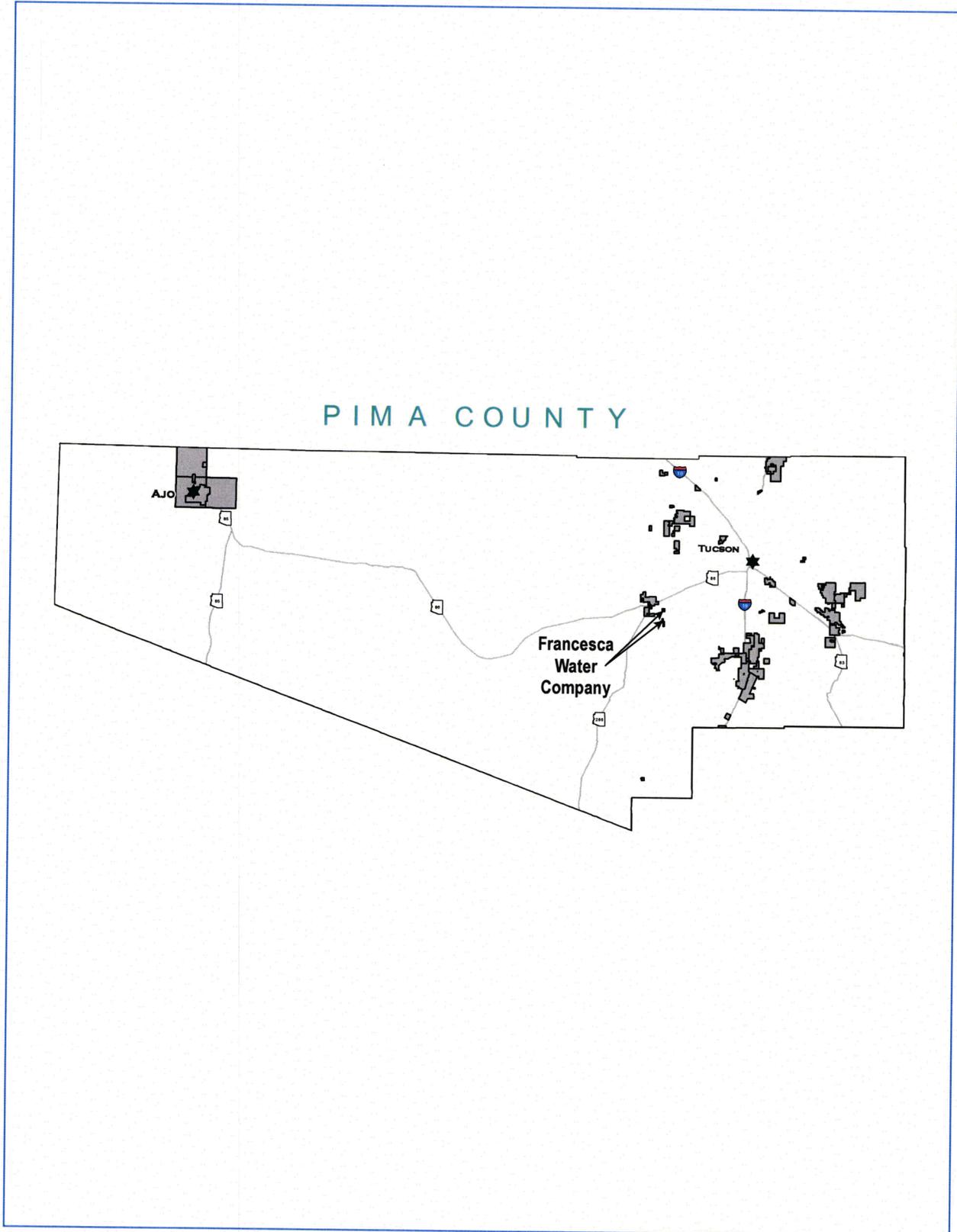
**EXHIBIT 1**

**Francesca Certificate Service Area**



**EXHIBIT 2.**

**LOCATION OF FRANCESCA SERVICE AREA**



Francesca Water

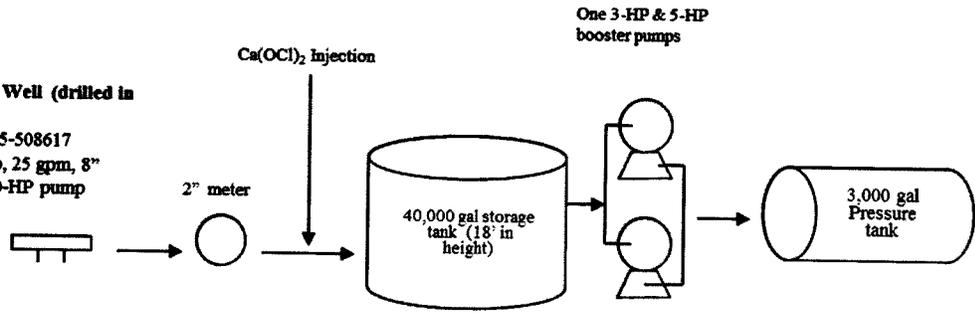
3-15-16

Legend

- 1. 5-HP pump was replaced in 2013.
- 2. A new storage box was installed.

Talaway System (PWS #10-283)

Talaway Well (drilled in 1984)  
DWR # 55-508617  
550' deep, 25 gpm, 8" casing, 10-HP pump



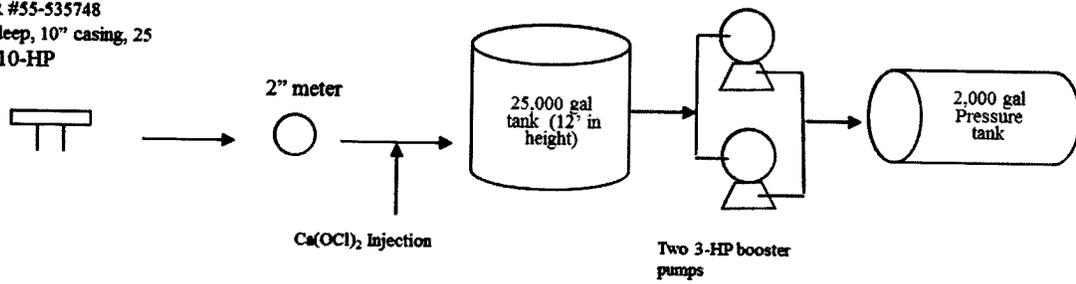
Talaway Well Site

Distribution

metered customers in Talaway system

Amber Ann Well (drilled in 1992)  
DWR #55-535748  
805' deep, 10" casing, 25 gpm, 10-HP

Amber Ann System (PWS #10-317)



Amber Ann Well Site

Distribution

metered customers in Amber Ann system

EXHIBIT 4A

WATER USAGE IN THE FRANCESCA SERVICE AREA

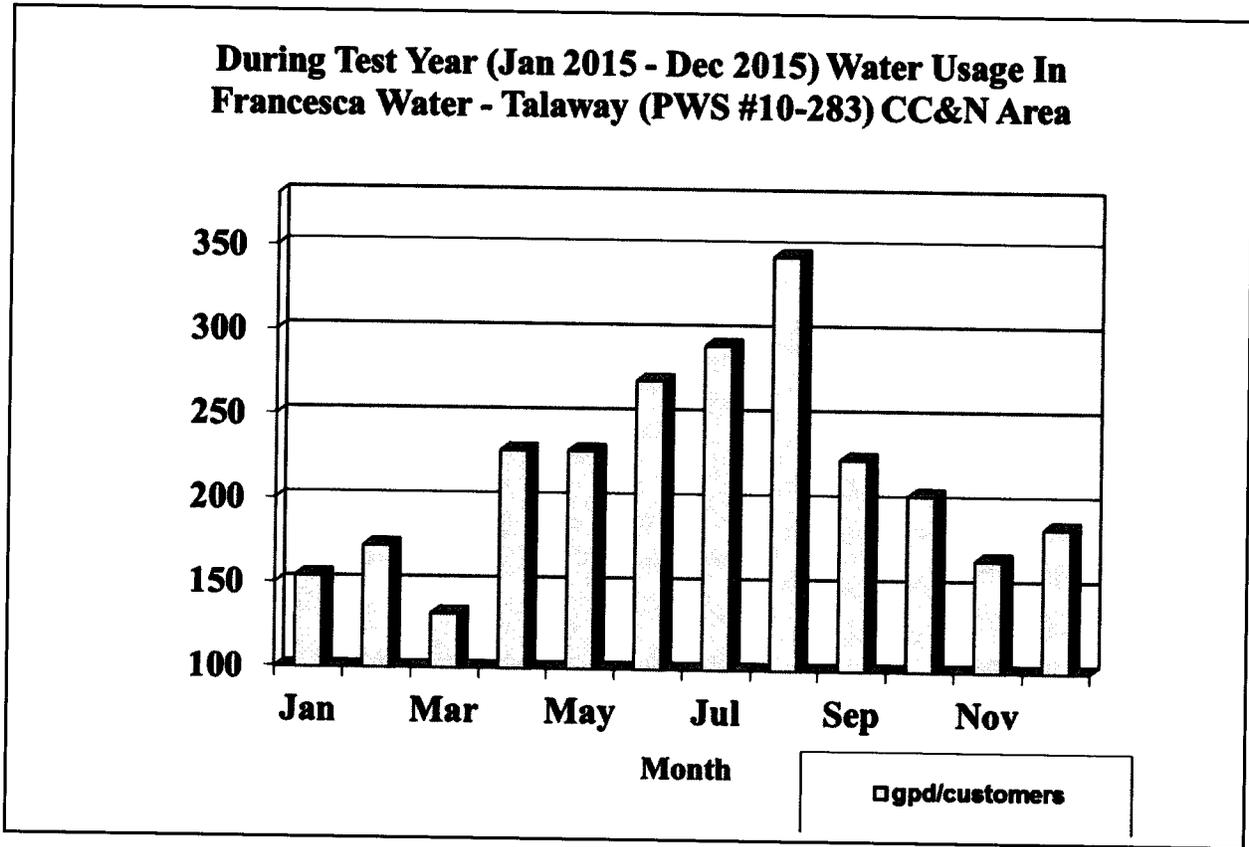
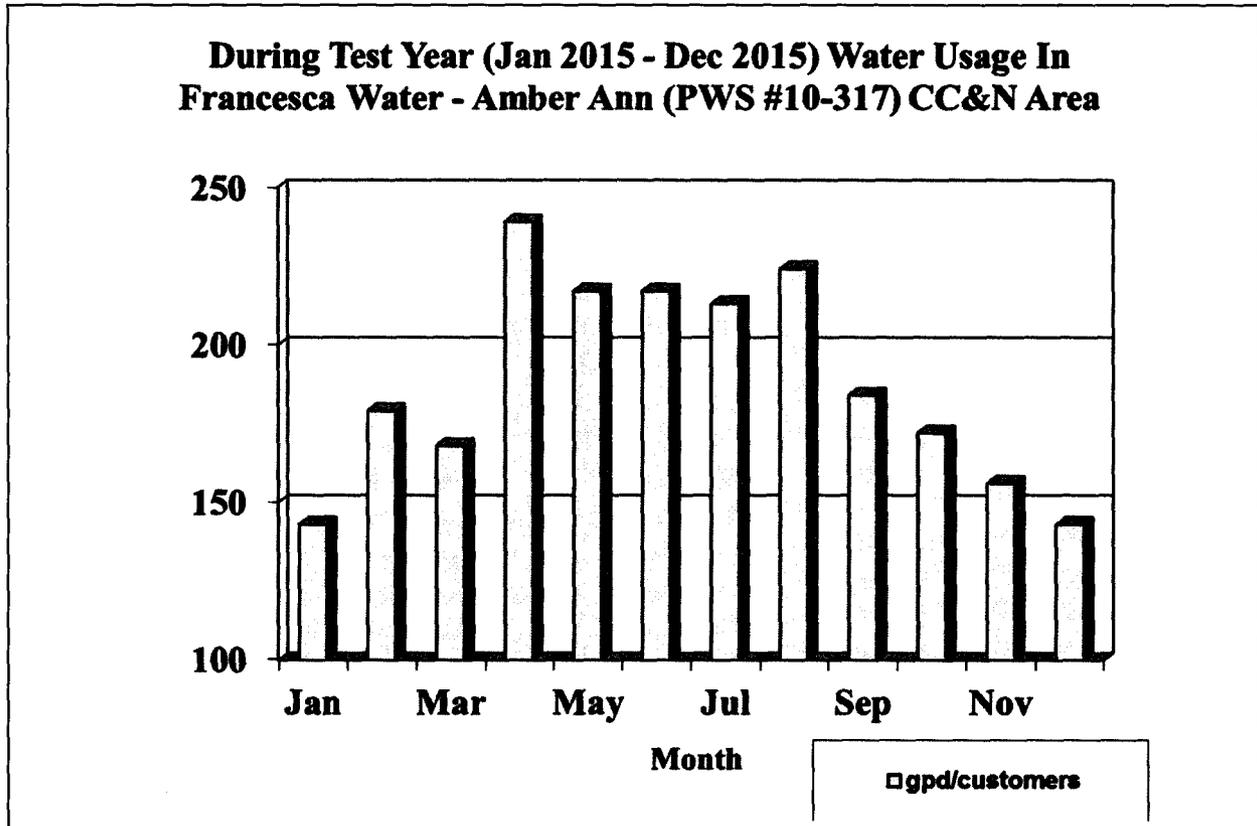


EXHIBIT 4B

WATER USAGE IN THE FRANCESCA SERVICE AREA



**EXHIBIT 5**

**WATER DEPRECIATION RATES (Francesca)**

Acct. No.	Depreciable Plant	Decision # 74397 (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 & Land Rights	0.00	0.00	0.00
304	Structures & Improvements	3.33	3.33	3.33
305	Collecting & Impounding Reservoirs	2.50	N/A	2.50
306	Lake, River, Canal Intakes	2.50	N/A	2.50
307	Wells & Springs	3.33	3.33	3.33
308	Infiltration Galleries	6.67	N/A	6.67
309	Raw Water Supply Mains	2.00	2.00	2.00
310	Power Generation Equipment	5.00	5.00	5.00
311	Pumping Equipment	12.5	12.5	12.5
320	Water Treatment Equipment			
320.1	Water Treatment Plants	3.33	3.33	3.33
320.2	Solution Chemical Feeders	20.0	20.00	20.0
330	Distribution Reservoirs & Standpipes <sup>1</sup>	2.22		
330.1	Storage Tanks	2.22	2.22	2.22
330.2	Pressure Tanks	5.00	5.00	5.00
331	Transmission & Distribution Mains	2.00	2.00	2.00
333	Services	3.33	3.33	3.33
334	Meters	8.33	8.33	8.33
335	Hydrants	2.00	2.00	2.00
336	Backflow Prevention Devices	6.67	6.67	6.67
339	Other Plant & Misc Equipment	6.67	6.67	6.67
340	Office Furniture & Equipment	6.67	6.67	6.67
340.1	Computers & Software	20.00	20.00	20.00
341	Transportation Equipment	20.00	20.00	20.00
342	Stores Equipment	4.00	N/A	4.00
343	Tools, Shop & Garage Equipment	5.00	5.00	5.00
344	Laboratory Equipment	10.00	10.00	10.00
345	Power Operated Equipment	5.00	5.00	5.00
346	Communication Equipment	10.00	10.00	10.00
347	Miscellaneous Equipment	10.00	10.00	10.00
348	Other Tangible Plant	5.00	N/A	5.00

Notes: 1. The Company does not have standpipe equipment or service, therefore, Staff agrees with the Company to leave the depreciation rate for Account No. 330 (for reservoirs and standpipes) blank.