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**MEMORANDUM**

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2011 JAN 18 P 4: 29

AZ CORP COMMISSION
DOCKET CONTROL

TO: Docket Control

FROM: Steven M. Olea
Director
Utilities Division

DATE: January 18, 2011

RE: STAFF REPORT FOR A. PETERSEN WATER COMPANY'S APPLICATION FOR FINANCING AUTHORIZATION AND A PERMANENT RATE INCREASE (DOCKET NO W-02678A-10-0304)

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

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 January 28, 2011.

SMO:DRE:tdp

Originator: Darak R. Eaddy

Arizona Corporation Commission
DOCKETED
JAN 18 2011
DOCKETED BY

Service List for: A. Petersen Water Company
Docket Nos. W-02678A-10-0303 and W-02678A-10-0304

Mr. Thomas Grapp
Silverwell Service Corporation
Post Office Box 1270
Show Low, Arizona 85902

# STAFF REPORT
# UTILITIES DIVISION
# ARIZONA CORPORATION COMMISSION

## A. PETERSEN WATER COMPANY

## DOCKET NOS. W-02678A-10-0303 AND W-02678A-10-0304

## APPLICATION FOR FINANCING AUTHORIZATION AND A PERMANENT RATE INCREASE

JANUARY 18, 2011

## STAFF ACKNOWLEDGMENT

The Staff Report for A. Petersen Water Company, Docket Nos. W-02678A-10-0303 and W-02678A-10-0304 was the responsibility of the Staff members listed below. Darak R. Eaddy was responsible for the financial review and analysis of the Company's application, recommended revenue requirement, rate base and rate design. Jian W. Liu was responsible for the engineering and technical analysis. Guadalupe Ortiz was responsible for reviewing the Commission's records on customer complaints filed with the Commission.

Darak R. Eaddy
Public Utility Analyst II

Jian W Liu
Utilities Engineer

for Guadalupe Ortiz
Public Utilities Consumer Analyst I

**EXECUTIVE SUMMARY**
**A. PETERSEN WATER COMPANY**
**APPLICATION FOR FINANCING AUTHORIZATION**
**AND A PERMANENT RATE INCREASE**
**DOCKET NOS. W-02678A-10-0303 AND W-02678A-10-0304**

A. Petersen Water Company ("A. Petersen" or "Company") is an Arizona Sub-Chapter S Corporation engaged in the business of providing potable water service to approximately 43 customers in Navajo County, Arizona. The Company's service territory is located approximately 10 miles west of Snowflake in Navajo County, Arizona, on State Route 277. The Company has been classified as a class E utility and its current rates were effective January 19, 2007, per Arizona Corporation Commission Decision No. 69242.

The Company proposes total operating revenue of $30,633, an increase of $13,326, or 77.00 percent over test year revenue of $17,307, which would result in an operating income of 7,942. The Company's proposed rates would yield a cash flow of $9,329 and an operating margin of 25.93 percent. The Company has proposed an original cost rate base ("OCRB") of $23,374. The Company did not propose a fair value rate base that differs from its OCRB.

Staff recommends total operating revenue of $26,896, an increase of $9,550, or 55.06 percent over the Staff-adjusted test year revenue of $17,346, which results in an operating income of $6,938. Staff's recommended rates would yield a cash flow of $7,103 and an operating margin of 25.80 percent. Staff has recommended an OCRB of $7,566. Staff was unable to derive the revenue requirement by applying a rate of return on rate base because the Company's extremely low rate base did not produce sufficient revenues for the Company's operating needs.

The Company's proposed rates would increase the typical 5/8 x 3/4-inch meter residential bill with a median usage of 3,934 gallons from $24.06 to $41.27, an increase of $17.21 or 71.5 percent.

Staff's recommended rates would increase the typical 5/8 x 3/4-inch meter residential bill with a median usage of 3,934 gallons from $24.06 to $32.74, for an increase of $8.68 or 36.1 percent.

The Company filed a financing authorization application on July 21, 2010. The financing is to provide funds to reimburse owner/operator Mr. Mark Grapp for funds he provided to the Company to pay for various operating expenses. Staff recommends denial of the financing application.

Staff Recommendations:

Staff recommends approval of the Staff-proposed rates and charges as shown in Schedule DRE-4, pages 1 and 2. In addition to collection of its regular rates and charges, the Company may collect from its customers a proportionate share of any privilege, sales, or use tax as provided for in A.A.C. R14-2-409.D.

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

Staff further recommends that the Company adopt the typical and customary depreciation rates as delineated on Table B in Section I of the attached Engineering Report.

Staff further recommends approval of separate installation charges for the service line and meter installation charges as delineated in Table C in Section K of the attached Engineering Report.

Staff further recommends denial of the financing authorization application.

Staff further recommends that the funds provided by Mr. Mark Grapp be treated as paid-in-capital for ratemaking purposes.

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## ATTACHMENT

Engineering Report ..... A

**Fact sheet**

**Type of Ownership** Arizona Sub-Chapter S Corporation.

**Location** The Company serves water customers approximately 10 miles west of Snowflake in Navajo County, Arizona.

**Active Management Area** The Company is not located in any Active Management Area ("AMA") and is not subject to any AMA reporting and conservation requirements.

**Rates** Permanent rate increase application filed: July 21, 2010. The application became sufficient on November 5, 2010.

**Prior Test Year** December 31, 2005.

**Current Test Year Ended** December 31, 2009.

**Monthly Minimum Rates**

| | Company Current Rates | Company Proposed Rates | Staff Recommended Rates |
|---|---|---|---|
| Residential Monthly Minimum Charge<br>Based on 5/8 x 3/4-inch meter<br>(no gallons included in minimum) | $ 17.50 | $ 27.50 | $ 21.50 |
| **Commodity Rates** | | | |
| 5/8 x 3/4 Inch Meter | | | |
| 0 to 3,000 gallons | $ 1.50 | N/A | N/A |
| 3,001 to 9,000 gallons | $ 2.20 | N/A | N/A |
| Over 9,000 gallons | $ 2.96 | N/A | N/A |
| 0 to 4,000 gallons | N/A | $ 3.50 | N/A |
| 4,001 to 10,000 gallons | N/A | $ 4.50 | N/A |
| Over 10,000 gallons | N/A | $ 6.00 | N/A |
| 0 to 3,000 gallons | N/A | N/A | $ 2.50 |
| 3,001 to 9,000 gallons | N/A | N/A | $ 4.00 |
| Over 9,000 gallons | N/A | N/A | $ 6.14 |
| Bulk Water | $ 5.00 | N/A | $ 6.14 |

**Fact Sheet (Continued)**

| | Company Current Rates | Company Proposed Rates | Staff Recommended Rates |
|---|---|---|---|
| **Typical 5/8 x 3/4-inch residential bill** | | | |
| Average use (6,875 gallons) | $30.52 | $54.44 | $44.50 |
| Median use (3,934 gallons) | $24.06 | $41.27 | $32.74 |

**Customers**

Average Number of customers in the current test year (12/31/09): 43

Current test year customers by meter size:

| | |
|---|---|
| 5/8 x 3/4-inch | 43 |

**Notifications**

An affidavit of mailing of the customer notification was filed on July 21, 2010.

Number of opinions filed against the rate increase application: 4.

Number of customer complaints filed against the Company from January 1, 2008, to January 4, 2011: 0.

**Summary of Filing**

The test year results as adjusted by Utilities Division Staff ("Staff") for A. Petersen reflect total operating revenue of $17,346 and an operating loss of $2,612 as shown on Schedule DRE-1. The original cost rate base ("OCRB") as adjusted by Staff is $7,566.

A. Petersen's proposed rates would produce total operating revenue of $30,633 and an operating income of $7,942. The Company's proposed rates would yield a cash flow of $9,329 and an operating margin of 25.93 percent. The Company proposes a fair value rate base of $23,374, which does not differ from its OCRB. The Company's proposed rates would increase the typical 5/8 x 3/4-inch meter residential bill with a median usage of 3,934 gallons from $24.06 to $41.27, an increase of $17.21 or 71.5 percent, as shown on Schedule DRE-5.

Staff's recommended rates would produce total operating revenue of $26,896 and operating income of $6,938. Staffs recommended rates would yield a cash flow of $7,103 and an operating margin of 25.80 percent. Staff recommends a fair value rate base of $7,566. Staff's recommended rates would increase the typical 5/8 x 3/4-inch meter residential bill with a median usage of 3,934 gallons from $24.06 to $32.74, for an increase of $8.68 or 36.1 percent.

During the test year ended December 31, 2009, A. Petersen provided potable water service to approximately 43 customers.

The Company is registered as an Arizona Sub-Chapter S corporation with the Corporations Division of the Arizona Corporation Commission ("Commission").

**Company Background**

A. Petersen provides potable water service approximately 10 miles west of Snowflake in Navajo County, Arizona. The Company's service territory is located on State Route 277.

On July 21, 2010, A. Petersen filed an application for a permanent rate increase. On November 5, 2010, Staff issued a Letter of Sufficiency. The Company filed with Docket Control on July 21, 2010, a copy of its affidavit of service notifying customers of its pending rate increase application.

The Company provides water services to approximately 43 residential customers with 5/8 x 3/4-inch meters. The Company has been classified as a class E utility.

**Consumer Services**

A review of the Consumer Services Section database from January 1, 2008, through January 4, 2011, revealed that there were four opinions filed opposing the rate increase request. The review revealed that during the same time period there had been no complaints filed against the Company.

**Compliance**

The Utilities Division Compliance Section shows no outstanding compliance issues.

A. Petersen is current on its property and sales tax payments.

A. Petersen is in good standing with the Corporations Division of the Commission.

**Engineering**

The water system was field-inspected on October 25, 2010, by Mr. Jian Liu, Staff Utilities Engineer, in the accompaniment of Mr. Bryan Mullins, representing the Company. 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 (Attachment A).

**Rate Base**

Staff's adjustments decreased A. Petersen's proposed rate base by $15,808, from $23,374 to $7,566 as shown on Schedule DRE-2, page 1. Details of Staff's adjustments are discussed below.

**Plant in Service**

Staff's adjustments to plant in service resulted in a net decrease of $3,220, from $28,563 to $25,343 as shown on Schedule DRE-2, page 2. A significant portion of Staff's decrease to plant in service was the result of Staff's adjustments to properly reflect the plant in service account balances per Decision No. 69242 and to remove unsupported plant additions.

Power Generation Equipment - Adjustment "a" decreases the power generation equipment account by $550, from $4,550 to $4,000 as shown on Schedule DRE-2, pages 2 and 4. Staff's adjusted amount reflects the account balance per Decision No. 69242 and the removal of $550 not supported by documentation.

Storage Equipment - Adjustment "b" decreases the storage equipment account by $1,810, from $2,420 to $610 as shown on Schedule DRE-2, pages 2 and 4. Staff's adjusted amount reflects the account balance per Decision No. 69242, the removal of $250 in duplicate costs, and the removal of $1,560 not supported by documentation.

Services - Adjustment "c" decreases the services account by $676, from $2,195 to $1,519 as shown on Schedule DRE-2, pages 2 and 4. Staff's adjusted amount reflects the account balance per Decision No. 69242 and the removal of $676 not supported by documentation.

Meters and Meter Installations - Adjustment "d" decreases the meters and meter installations account by $184, from $1,398 to $1,214 as shown on Schedule DRE-2, pages 2 and 4. Staff's adjusted amount reflects the account balance per Decision No. 69242 and the removal of $184 not supported by documentation.

**Other Rate Base Items**

**Accumulated Depreciation**

Staff increased accumulated depreciation by $14,809, from $4,549 to $19,358 as shown on Schedule DRE-2, pages 1 and 5. The increase results from adjustments made to plant in service account balances, the addition of depreciation expense since the last rate case to accumulated depreciation, and an adjustment to properly reflect the $19,016 balance at the conclusion of the previous rate application.

**Working Capital**

Staff's adjustments to working capital resulted in a net increase of $2,221, from $0 to $2,221, as shown on Schedule DRE-2, pages 1 and 6.

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.

**Expense Allocation**

In the Company's application, it requested that it be allowed to return to the previous single-factor allocation method utilized to allocate shared cost amongst the five companies[1] owned by Mr. Mark Grapp. All of the companies are Commission-regulated with the exception of Water Management Company, LLC. The Company is requesting that the shared costs between Mr. Grapp's companies be allocated solely on customer count.

The owner uses shared services to manage and operate the five companies. Shared service expenses accounted for a significant portion of the various companies' operating expenses. The shared services include, but are not limited to, employees, office building space, office supplies, utilities, computers, computer software, telephone, insurance, and other miscellaneous services. Also, Mark Grapp's salary is allocated among the five companies.

The primary goal of cost allocation is to prevent or limit, as much as possible, any cross-subsidization of customers from one company by customers of another company.

[1] A. Petersen Water Company, Inc.; Cedar Grove Water, Inc.; Vernon Valley Water, Inc.; Watco, Inc.; and Water Management Company, LLC.

The single-factor allocation methodology that the Company is requesting is inappropriate because it always results in the utility companies with the largest number of customers paying the largest amount of the allocated cost regardless of any direct causal relationship between the number of customers and that cost.

For example, in any given year the owner could spend significantly more time on one of the smaller utilities (i.e. A. Petersen). However, with adoption of the Company's request, a significant portion of the owner's salary will be allocated to the larger companies rather than the company that required more of Mr. Grapp's attention. If this occurs, the cost causation ratemaking principles will have been violated as one of the larger companies will be unfairly allocated a significant portion of the salary, rather than the company that caused the cost.

Another example where the single-factor allocation method using customer count would not meet the cost causation ratemaking principle would be office rent. Office rent is impacted more by the total number of office employees and their direct labor hours than by customer count.

One of the principles contained in the National Association of Regulatory Commissioners ("NARUC") Guideline for Cost Allocations and Affiliate Transactions states that:

> The indirect costs of each business unit, including the allocated costs of shared services, should be spread to the services or products to which they relate using relevant cost allocators.

Staff believes that the four factors currently being used to allocate shared cost amongst the companies better matches cost causation with the appropriate company. While customer count may produce appropriate allocation of shared expenses, the current four-factor allocation method is a more accurate method for allocating shared cost to the activities and company that have caused the cost. Customer count is a relevant cost allocator; however, it yields a better allocation of shared cost when used in conjunction with other relevant cost allocators rather than used as the sole cost allocator.

## Operating Income Statement

### Operating Revenue

Staff's adjustment to operating revenue resulted in an increase of $40, from $17,307 to $17,346, as shown on Schedule DRE-3, pages 1 and 2.

Adjustment 1 reflects total operating revenues based on the Company's submitted bill counts.

**Operating Expenses**

Staff's adjustments to operating expenses resulted in a decrease of $2,733, from $22,691 to $19,958, as shown on Schedule DRE-3, page 1. The adjustments are explained below.

Repairs and Maintenance - Adjustment 2 increases repairs and maintenance expense by $441, from $85 to $496 as shown on Schedule DRE-3, pages 1 and 2. Staff's adjustment reflects Staff's calculation of repairs and maintenance based on the documentation submitted by the Company and the inclusion of $411 of costs that had been previously improperly capitalized.

Water Testing - Adjustment 3 decreases water testing expense by $42, from $884 to $842, as shown on Schedule DRE-3, pages 1 and 2. This adjustment removes the Company's $42 pro-forma increase to test year water testing expense and reflects the annual water testing costs determined by Staff and reported in the attached Engineering Report.

Regulatory Commission Expense – Rate Case - Adjustment 4 increases regulatory commission expense – rate case by $1000, from $0 to $1000, as shown on Schedule DRE-3, pages 1 and 2. Staff's adjustment reflects Staff's computation of the normalized level over four years of annual rate case expense. The Company did not request rate case expense in its application.

Depreciation Expense - Adjustment 5 decreases depreciation expense by $1,222, from $1,387 to $165, as shown on Schedule DRE-3, pages 1 and 3. This adjustment reflects Staff's calculation of depreciation expense applying Staff's recommended depreciation rates to Staff's recommended plant balances for A. Petersen.

Taxes Other Than Income - Staff's adjustment 6 decreases taxes other than income by $2,130, from $2,130 to $0 as shown on Schedule DRE-3, pages 1 and 4. This adjustment reflects Staff's removal of sales taxes collected by the Company and included in operating expenses. These sales taxes were paid to the Arizona Department of Revenue and should be removed from expenses, since the corresponding collected taxes were removed from revenue.

**Cash Flow and Operating Margin**

The Company's proposed rates and charges would provide an operating income of $7,942 and would yield a cash flow of $9,329 and an operating margin of 25.93 percent.

Staff's recommended rates and charges would provide an operating income of $6,938 and would yield a cash flow of $7,103 and an operating margin of 25.80 percent.

**Revenue Requirement**

Staff recommends total operating revenue of $26,896, a $9,550 or 55.05 percent increase over the Staff adjusted test year operating revenue of $17,346. Staff's recommended revenue provides an operating income of $6,938, as shown in Schedule DRE-1.

In determining the revenue requirement, Staff endeavored to provide the Company sufficient funds to manage contingencies, operating expenses, etc. Staff believes that its recommended cash flow provides ample funds to meet the Company's operating needs. Staff's higher than normal operating margin reflects the age of the system and that a significant portion of the system is fully depreciated. Staff was unable to derive the revenue requirement by applying a rate of return on rate base because the Company's extremely low rate base did not produce sufficient revenues for the Company's operating needs.

**Rate Design**

Schedule DRE-4, pages 1 and 2 presents a complete list of the Company's present, proposed, and Staff's recommended rates and charges.

The Company's proposed rates would increase the typical 5/8 x 3/4-inch meter residential bill with a median usage of 3,934 gallons from $24.06 to $41.27, an increase of $17.21 or 71.5 percent, as shown on Schedule DRE-5.

Staff's recommended rates would increase the 5/8 x 3/4-inch meter residential bill with a median usage of 3,934 gallons from $24.06 to $32.50, for an increase of $8.44 or 35.1 percent.

**Miscellaneous Service Charges**

The Company has proposed to change the reconnection (delinquent) charge from $25 to $50. Staff concurs with the Company that this is a reasonable charge for the service and recommends approval of the charge.

The Company has proposed a reconnection (delinquent) after hours charge of $75. Staff concurs with the Company that this is a reasonable charge for the service and recommends approval of the charge.

The Company proposes to change the meter test (if correct) charge from $40 to $75. Staff finds that the existing $40 charge is a reasonable and normal charge and recommends it.

The Company proposes to change the meter re-read charge from $10 to $15. Staff concurs with the Company that this is a reasonable charge for the service and recommends approval of the charge.

Staff proposes to change the language for the monthly service charge for fire sprinkler to: "2.00% of monthly minimum for a comparable sized meter connection, but no less than $10.00 per month. The service charge for sprinklers is only applicable for service lines separate and distinct from the primary water service line."

**Service Line and Meter Installation Charges**

The Company has requested to change its service line and meter installation charges. These charges are refundable advances. The Company has proposed to reduce its 5/8 X 3/4 meter charge to $0.00. The Company has told Staff that it would prefer not to charge for the 5/8 meter because the administrative cost of refunding outweighs any benefit, especially for the standard meter.

For the larger size meters, the Company's proposed charges are below Staff's recommended range for these charges. The Company would like to keep these charges as low as reasonable so that potential annual refunds to customers are minimized which the Company believes will create less of a financial burden for it.

Staff concurs with the Company.

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 approval of Staff's Service Line and Meter Installation Charges as shown on Table C in Section K of the attached Engineering Report.

**Financing**

On July 21, 2010 the Company filed a financing application with the Commission seeking authorization for unsecured debt financing in the amount of $6,226. The purpose of the financing was to reimburse owner/operator Mr. Mark Grapp for funds provided to pay various operating expenses of the Company. The Company in its application stated it was not able to meet its operating expenses due to insufficient rates.

The proposed unsecured debt financing would be at 10 percent interest rate with payment due monthly and a date of maturity one year from Commission approval. The Company did not apply for Commission authorization to incur debt before receiving funds from Mr. Grapp, as required by A.R.S. $40-301, nor has the Company sought approval in the intervening time period since receiving the funds.

The Company stated that the only option that was available to the Company was to borrow the funds from Mr. Grapp. Staff notes that the Company never sought emergency rate relief, and the Company waited four years to file a new rate case, even though the Company states it was unable to meet its expenses due to insufficient rates.

**Conclusions and Recommendations**

Staff concludes that the $6,226 in funds provided by Mr. Grapp represent the owner's investment in the Company and as such should not be considered a debt of the Company.

Staff notes that Commission rules require the denial of long-term debt to fund operating expenses.

Staff recommends denial of A. Petersen's application for authorization to issue $6,226 in new debt.

Staff further recommends classification of the $6,226 as "Other Paid-In Capital" instead of debt in accordance with the NARUC Uniform System of Accounts.

**Staff Recommendations**

Staff recommends approval of the Staff-proposed rates and charges as shown in Schedule DRE-4, pages 1 and 2. In addition to collection of its regular rates and charges, the Company may collect from its customers a proportionate share of any privilege, sales, or use tax as provided for in A.A.C. R14-2-409.D.

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

Staff further recommends that the Company adopt the typical and customary depreciation rates as delineated on Table B in Section I of the attached Engineering Report.

Staff further recommends approval of separate installation charges for the service line and meter installation charges as delineated in Table C in Section K of the attached Engineering Report.

Staff further recommends denial of the financing authorization application.

Staff further recommends the funds provided by Mr. Mark Grapp be treated as paid-in-capital for ratemaking purposes.

**A. Petersen Water Company**
Docket No. W-02678A-10-0304
Test Year Ended: December 31, 2009

Schedule DRE-1

# SUMMARY OF FILING

| | -- Present Rates -- | | -- Proposed Rates -- | |
|---|---|---|---|---|
| | Company as Filed | Staff as Adjusted | Company as Filed | Staff as Adjusted |
| Revenues: | | | | |
| Metered Water Revenue | $17,182 | $17,221 | $30,483 | $26,746 |
| Unmetered Water Revenue | 0 | 0 | 0 | 0 |
| Other Water Revenues | 125 | 125 | 150 | 150 |
| Total Operating Revenue | $17,307 | **$17,346** | $30,633 | **$26,896** |
| Operating Expenses: | | | | |
| Operation and Maintenance | $18,812 | $19,431 | $18,812 | $19,431 |
| Depreciation | 1,387 | 165 | 1,387 | 165 |
| Property & Other Taxes | 2,492 | 362 | 2,492 | 362 |
| Income Tax | 0 | 0 | 0 | 0 |
| Total Operating Expense | $22,691 | **$19,958** | $22,691 | **$19,958** |
| Operating Income/(Loss) | ($5,384) | **($2,612)** | $7,942 | **$6,938** |
| Rate Base O.C.L.D. | $23,374 | $7,572 | $23,374 | $7,572 |
| Rate of Return - O.C.L.D. | N/M | N/M | 33.98% | 91.62% |
| Operating Margin | N/M | N/M | 25.93% | 25.80% |

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

**A. Petersen Water Company**
Docket No. W-02678A-10-0304
Test Year Ended: December 31, 2009



# RATE BASE

| | Original Cost Company | Original Cost Adjustment | | Staff |
|---|---|---|---|---|
| Plant in Service | $28,563 | ($3,220) | A | $25,343 |
| Less: | | | | |
| Accum. Depreciation | 4,549 | 14,809 | B | 19,358 |
| Net Plant | $24,014 | ($18,029) | | **$5,985** |
| Less: | | | | |
| Plant Advances | $0 | $0 | | $0 |
| Customer Deposits | 640 | 0 | | 640 |
| Total | $640 | $0 | | $640 |
| Contributions Gross | $0 | $0 | | $0 |
| Less: | | | | |
| Amortization of CIAC | 0 | 0 | | 0 |
| Net CIAC | $0 | $0 | | $0 |
| Total Deductions | $640 | $0 | | **$640** |
| Plus: | | | | |
| 1/24 Power | $0 | $104 | C | $104 |
| 1/8 Operation & Maint. | 0 | 2,116 | D | 2,116 |
| Inventory | 0 | 0 | | 0 |
| Prepayments | 0 | 0 | | 0 |
| Total Additions | $0 | $2,220 | | **$2,220** |
| **Rate Base** | **$23,374** | **($15,808)** | | **$7,566** |

Explanation of Adjustment:

A - See Schedule 2, Page 2, 3, and 4
B - See Schedule 2, Page 5
C - See Schedule 2, Page 6
D - See Schedule 2, Page 6

# PLANT ADJUSTMENT

| | | Company Exhibit | Adjustment | | Staff Adjusted |
|---|---|---|---|---|---|
| 301 | Organization | $0 | $0 | | $0 |
| 302 | Franchises | 0 | 0 | | 0 |
| 303 | Land & Land Rights | 3,000 | 0 | | 3,000 |
| 304 | Structures & Improvements | 0 | 0 | | 0 |
| 305 | Collecting & Impounding Reservoirs | 0 | 0 | | 0 |
| 306 | Lake, River, Canal Intakes | 0 | 0 | | 0 |
| 307 | Wells & Springs | 3,000 | 0 | | 3,000 |
| 308 | Infiltration Galleries | 0 | 0 | | 0 |
| 309 | Raw Water Supply Mains | 0 | 0 | | 0 |
| 310 | Power Generation Equipment | 0 | 0 | | 0 |
| 311 | Pumping Equipment | 4,550 | (550) | a | 4,000 |
| 320 | Water Treatment Equipment | 0 | 0 | | 0 |
| 320.1 | Water Treatment Plants | 0 | 0 | | 0 |
| 320.2 | Solution Chemical Feeders | 0 | 0 | | 0 |
| 330 | Distribution Reservoirs & Standpipes | 0 | 0 | | 0 |
| 330.1 | Storage Tanks | 2,420 | (1,810) | b | 610 |
| 330.2 | Pressure Tanks | 0 | 0 | | 0 |
| 331 | Transmission & Distribution Mains | 10,000 | 0 | | 10,000 |
| 333 | Services | 2,195 | (676) | c | 1,519 |
| 334 | Meters & Meter Installations | 1,398 | (184) | d | 1,214 |
| 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 | 0 | 0 | | 0 |
| 340.1 | Computers & Software | 0 | 0 | | 0 |
| 341 | Transportation Equipment | 0 | 0 | | 0 |
| 342 | Stores Equipment | 0 | 0 | | 0 |
| 343 | Tools Shop & Garage Equipment | 0 | 0 | | 0 |
| 344 | Laboratory Equipment | 0 | 0 | | 0 |
| 345 | Power Operated Equipment | 0 | 0 | | 0 |
| 346 | Communication Equipment | 0 | 0 | | 0 |
| 347 | Miscellaneous Equipment | 0 | 0 | | 0 |
| 348 | Other Tangible Plant | 2,000 | 0 | | 2,000 |
| 105 | C.W.I.P. | 0 | 0 | | 0 |
| | **TOTALS** | $28,563 | ($3,220) | A | **$25,343** |

Explanation of Adjustment:
- a - See Schedule 2, Page 4
- b - See Schedule 2, Page 4
- c - See Schedule 2, Page 4
- d - See Schedule 2, Page 4

## UTILITY PLANT IN SERVICE

| | | Staff Adjusted Plant | Staff Adjusted Accum. Depr. | Staff Adjusted OCLD |
|---|---|---|---|---|
| 301 | Organization | $0 | $0 | $0 |
| 302 | Franchises | 0 | 0 | 0 |
| 303 | Land & Land Rights | 3,000 | 0 | 3,000 |
| 304 | Structures & Improvements | 0 | 0 | 0 |
| 305 | Collecting & Impounding Reservoirs | 0 | 0 | 0 |
| 306 | Lake, River, Canal Intakes | 0 | 0 | 0 |
| 307 | Wells & Springs | 3,000 | 3,000 | 0 |
| 308 | Infiltration Galleries | 0 | 0 | 0 |
| 309 | Raw Water Supply Mains | 0 | 0 | 0 |
| 310 | Power Generation Equipment | 0 | 0 | 0 |
| 311 | Pumping Equipment | 4,000 | 4,000 | 0 |
| 320 | Water Treatment Equipment | 0 | 0 | 0 |
| 320.1 | Water Treatment Plants | 0 | 0 | 0 |
| 320.2 | Solution Chemical Feeders | 0 | 0 | 0 |
| 330 | Distribution Reservoirs & Standpipes | 0 | 0 | 0 |
| 330.1 | Storage Tanks | 610 | 7 | 603 |
| 330.2 | Pressure Tanks | 0 | 0 | 0 |
| 331 | Transmission & Distribution Mains | 10,000 | 10,000 | 0 |
| 333 | Services | 1,519 | 70 | 1,449 |
| 334 | Meters & Meter Installations | 1,214 | 282 | 933 |
| 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 | 0 | 0 | 0 |
| 340.1 | Computers & Software | 0 | 0 | 0 |
| 341 | Transportation Equipment | 0 | 0 | 0 |
| 342 | Stores Equipment | 0 | 0 | 0 |
| 343 | Tools Shop & Garage Equipment | 0 | 0 | 0 |
| 344 | Laboratory Equipment | 0 | 0 | 0 |
| 345 | Power Operated Equipment | 0 | 0 | 0 |
| 346 | Communication Equipment | 0 | 0 | 0 |
| 347 | Miscellaneous Equipment | 0 | 0 | 0 |
| 348 | Other Tangible Plant | 2,000 | 2,000 | 0 |
| 105 | C.W.I.P. | 0 | 0 | 0 |
| | **TOTALS** | $25,343 | $19,358 | **$5,985** |

## STAFF PLANT ADJUSTMENTS

| | | | |
|---|---|---|---|
| a - | PUMPING EQUIPMENT - Per Company | $4,550 | |
| | Per Staff | 4,000 | ($550) |
| | To properly reflect account balance per Decision No. 69242 and removal of unsupported plant additions | | |
| b - | STORAGE TANKS - Per Company | $2,420 | |
| | Per Staff | 610 | ($1,810) |
| | To properly reflect account balance per Decision No. 69242, supported plant additions, and the removal of duplicate costs | | |
| c - | SERVICES - Per Company | $2,195 | |
| | Per Staff | 1,519 | ($676) |
| | To properly reflect account balance per Decision No. 69242 and removal of unsupported plant additions | | |
| d - | METERS & METER INSTALLATIONS - Per Company | $1,398 | |
| | Per Staff | 1,214 | ($184) |
| | To properly reflect account balance per Decision No. 69242 and supported plant additions | | |

# ACCUMULATED DEPRECIATION ADJUSTMENT

| | Amount | |
|---|---|---|
| Accumulated Depreciation - Per Company | $4,549 | |
| Accumulated Depreciation - Per Staff | 19,358 | |
| **Total Adjustment** | **$14,809** | B |

B - To reflect Staff's calculation of accumulated depreciation expense based upon Staff's adjustments to plant.

| | | |
|---|---|---|
| Accumulated Depreciation per Decision No. 69242 | | $19,016 |
| 2006 Credit to Accumulated Depreciation | $69 | |
| 2007 Credit to Accumulated Depreciation | $69 | |
| 2008 Credit to Accumulated Depreciation | $78 | |
| 2009 Credit to Accumulated Depreciation | $127 | |
| | | $342 |
| Accumulated Depreciation 12/31/2007 Staff Balance | | $19,358 |
| Less: Company Balance | | $4,549 |
| Staff Adjustment | | $14,809 |

## OTHER STAFF RATE BASE ADJUSTMENTS

| | | | | |
|---|---|---|---|---|
| C | - | WORKING CAPITAL (1/24 PURCHASED PWR & WTR) - Per Company | $ - | |
| | | Per Staff | 104 | $104 |
| | | To reflect Staff's calculation of cash working capital based upon Staff's recommendations for purchased power and purchased water | | |
| D | - | WORKING CAPITAL (1/8 OPERATION & MAINT EXP) - Per Company | $ - | |
| | | Per Staff | 2,116 | $2,116 |
| | | To reflect Staff's calculation of cash working capital based upon Staff's recommendations for operation and maintenance expense (excluding purchased power and purchased water expenses) | | |

**A. Petersen Water Company**
Docket No. W-02678A-10-0304
Test Year Ended: December 31, 2009



# STATEMENT OF OPERATING INCOME

| | Company Exhibit | Staff Adjustments | | Staff Adjusted |
|---|---|---|---|---|
| Revenues: | | | | |
| 461 Metered Water Revenue | $17,182 | $40 | 1 | $17,221 |
| 460 Unmetered Water Revenue | 0 | 0 | | 0 |
| 474 Other Water Revenues | 125 | 0 | | 125 |
| Total Operating Revenue | $17,307 | $40 | | **$17,346** |
| Operating Expenses: | | | | |
| 601 Salaries and Wages | $11,200 | $0 | | $11,200 |
| 610 Purchased Water | 0 | 0 | | 0 |
| 615 Purchased Power | 2,500 | 0 | | 2,500 |
| 618 Chemicals | 0 | 0 | | 0 |
| 620 Repairs and Maintenance | 85 | 411 | 2 | 496 |
| 621 Office Supplies & Expense | 751 | 0 | | 751 |
| 630 Outside Services | 789 | 0 | | 789 |
| 635 Water Testing | 884 | (42) | 3 | 842 |
| 641 Rents | 1,489 | 0 | | 1,489 |
| 650 Transportation Expenses | 856 | 0 | | 856 |
| 657 Insurance - General Liability | 260 | 0 | | 260 |
| 659 Insurance - Health and Life | 0 | 0 | | 0 |
| 666 Regulatory Commission Expense - Rate Case | 0 | 250 | 4 | 250 |
| 675 Miscellaneous Expense | 0 | 0 | | 0 |
| 403 Depreciation Expense | 1,387 | (1,222) | 5 | 165 |
| 408 Taxes Other Than Income | 2,130 | (2,130) | 6 | 0 |
| 408.11 Property Taxes | 362 | 0 | | 362 |
| 409 Income Tax | 0 | 0 | | 0 |
| Total Operating Expenses | $22,691 | ($2,733) | | **$19,958** |
| **OPERATING INCOME/(LOSS)** | **($5,384)** | **$2,773** | | **($2,612)** |
| Other Income/(Expense): | | | | |
| 419 Interest and Dividend Income | $0 | $0 | | $0 |
| 421 Non-Utility Income | 0 | 0 | | 0 |
| 427 Interest Expense | 0 | 0 | | 0 |
| 4XX Reserve/Replacement Fund Deposit | 0 | 0 | | 0 |
| 426 Miscellaneous Non-Utility Expense | 0 | 0 | | 0 |
| Total Other Income/(Expense) | $0 | $0 | | $0 |
| **NET INCOME/(LOSS)** | **($5,384)** | **$2,773** | | **($2,612)** |

Explanation of Adjustment:
1 - See Schedule 3, Page 2
2 - See Schedule 3, Page 2
3 - See Schedule 3, Page 2
4 - See Schedule 3, Page 2
5 - See Schedule 3, Page 3
6 - See Schedule 3, Page 4

## STAFF ADJUSTMENTS

| | | | |
|---|---|---|---|
| 1 - | METERED WATER REVENUE - Per Company | $17,182 | |
| | Per Staff | 17,221 | $40 |
| | To reflect the metered water revenue per the Company's submitted bill count | | |
| 2 - | REPAIRS & MAINTENANCE - Per Company | $85 | |
| | Per Staff | 496 | $411 |
| | To reflect Staff's computation of Repairs & Maintenance and the expensing of a previously capitalized item | | |
| 3 - | WATER TESTING - Per Company | $884 | |
| | Per Staff | 842 | ($42) |
| | To reflect Staff's annual water testing expense and the removal of the Company's pro-forma adjustment | | |
| 3 - | REGULATORY COMMISSION EXPENSE - Per Company | $0 | |
| | Per Staff | 250 | $250 |
| | To reflect Staff's computation of Regulatory Commission Expense based on Staff's estimate of reasonable expense and Staff's recommended 4 year normalization period | | |

## STAFF ADJUSTMENTS (Cont.)

| | | | |
|---|---|---|---|
| 4 - | DEPRECIATION - Per Company | $1,387 | |
| | Per Staff | 165 | ($1,222) |

Explanation of Adjustment:
**Pro Forma Annual Depreciation Expense:**

| DESCRIPTION | PLANT In SERVICE Per Staff | NonDepreciable or Fully Depreciated PLANT | DEPRECIABLE PLANT (Col A - Col B) | DEPRECIATION RATE | DEPRECIATION EXPENSE (Col C x Col D) |
|---|---|---|---|---|---|
| Organization | $ - | $ - | $ - | 0.00% | $ - |
| Franchises | $ - | $ - | $ - | 0.00% | $ - |
| Land & Land Rights | $ 3,000 | $ 3,000 | $ - | 0.00% | $ - |
| Structures & Improvem | $ - | $ - | $ - | 3.33% | $ - |
| Collecting & Impoundir | $ - | $ - | $ - | 2.50% | $ - |
| Lake, River, Canal Inta | $ - | $ - | $ - | 2.50% | $ - |
| Wells & Springs | $ 3,000 | $ 3,000 | $ - | 3.33% | $ - |
| Infiltration Galleries | $ - | $ - | $ - | 6.67% | $ - |
| Raw Water Supply Mai | $ - | $ - | $ - | 2.00% | $ - |
| Power Generation Equ | $ - | $ - | $ - | 5.00% | $ - |
| Pumping Equipment | $ 4,000 | $ 4,000 | $ - | 12.50% | $ - |
| Water Treatment Equip | $ - | $ - | $ - | 0.00% | $ - |
| Water Treatment Pla | $ - | $ - | $ - | 3.33% | $ - |
| Solution Chemical Fe | $ - | $ - | $ - | 20.00% | $ - |
| Distribution Reservoirs | $ - | $ - | $ - | 0.00% | $ - |
| Storage Tanks | $ 610 | $ - | $ 610 | 2.22% | $ 14 |
| Pressure Tanks | $ - | $ - | $ - | 5.00% | $ - |
| Transmission & Distrib | $ 10,000 | $ 10,000 | $ - | 2.00% | $ - |
| Services | $ 1,519 | $ - | $ 1,519 | 3.33% | $ 51 |
| Meters & Meter Installa | $ 1,214 | $ - | $ 1,214 | 8.33% | $ 101 |
| Hydrants | $ - | $ - | $ - | 2.00% | $ - |
| Backflow Prevention D | $ - | $ - | $ - | 6.67% | $ - |
| Other Plant and Misc. I | $ - | $ - | $ - | 6.67% | $ - |
| Office Furniture & Equi | $ - | $ - | $ - | 6.67% | $ - |
| Computers & Softwa | $ - | $ - | $ - | 20.00% | $ - |
| Transportation Equipm | $ - | $ - | $ - | 20.00% | $ - |
| Tools Shop & Garage I | $ - | $ - | $ - | 5.00% | $ - |
| Laboratory Equipment | $ - | $ - | $ - | 10.00% | $ - |
| Power Operated Equip | $ - | $ - | $ - | 5.00% | $ - |
| Communication Equipr | $ - | $ - | $ - | 10.00% | $ - |
| Miscellaneous Equipm | $ - | $ - | $ - | 10.00% | $ - |
| Other Tangible Plant | $ 2,000 | $ 2,000 | $ - | 0.00% | $ - |
| Total | $ 25,343 | $ 22,000 | $ 3,343 | | $ 165 |

| | |
|---|---|
| Depreciation Expense Before Amortization of CIAC: | $ 165 |
| Amortization of CIAC | $ - |
| Test Year Depreciation Expense - Staff: | $ 165 |
| Depreciation Expense - Company: | $1,387 |
| Staff's Total Adjustment: | $ (1,222) |

**Pro Forma Annual Depreciation Expense:**

| | |
|---|---|
| Plant in Service | $25,343 |
| Less: Non Depreciable Plant | 3,000 |
| Fully Depreciated Plant | 19,000 |
| Depreciable Plant | $3,343 |
| Times: Staff Proposed Depreciation Rate | 4.95% |
| Full Year Credit to Accumulated Depreciation | $165 |
| Less: Amort. of CIAC* @ 4.95% | 0 |
| **Pro Forma Annual Depreciation Expense** | **$165** |

## STAFF ADJUSTMENTS (Cont.)

| | | | |
|---|---|---|---|
| 5 - | TAXES OTHER THAN INCOME - Per Company | $2,130 | |
| | Per Staff | 0 | ($2,130) |

To reflect Staff's adjustment for the removal of sales taxes incorrectly recorded to the account

**A. Petersen Water Company**
Docket No. W-02678A-10-0304
Test Year Ended: December 31, 2009



# RATE DESIGN

| Monthly Usage Charge | | Present Rates | -Proposed Rates- Company | Staff |
|---|---|---|---|---|
| 5/8" x 3/4" Meter | | $17.50 | $27.50 | $21.50 |
| 3/4" Meter | | 26.25 | 36.00 | 32.25 |
| 1" Meter | | 43.75 | 60.00 | 53.75 |
| 1½" Meter | | 87.50 | 120.00 | 107.50 |
| 2" Meter | | 140.00 | 192.00 | 172.00 |
| 3" Meter | | 280.00 | 384.00 | 344.00 |
| 4" Meter | | 437.50 | 600.00 | 537.50 |
| 6" Meter | | 875.00 | 1,200.00 | 1,075.00 |
| **Gallons Included in Minimum** | | | | |
| For all Meter Sizes | | 0 | 0 | 0 |
| **Commodity Rates (Per 1,000 Gallons)** | | | | |
| 5/8 and 3/4 Inch Meters | 0000 - 3,000 | $1.50 | N/A | N/A |
| | 3,001 - 9,000 | $2.20 | N/A | N/A |
| | Over 9,000 | $2.96 | N/A | N/A |
| 1 Inch Meter and Larger, all classes | 0000 - 9,000 | $2.20 | N/A | N/A |
| | Over 9,000 | $2.96 | N/A | N/A |
| All Meter Sizes | 0000 - 4,000 | N/A | $3.50 | N/A |
| | 4,001 - 10,000 | N/A | $4.50 | N/A |
| | Over 10,000 | N/A | $6.00 | N/A |
| 1 Inch Meter and Smaller, Residential | 0000 - 3,000 | N/A | N/A | $2.50 |
| | 3001 - 9,000 | N/A | N/A | $4.00 |
| | Over 9,000 | N/A | N/A | $6.14 |
| 1 Inch Meter, Non-residential | 0000 - 32,000 | N/A | N/A | $4.00 |
| | Over 32,000 | N/A | N/A | $6.14 |
| 1 1/2 Inch Meter | 0000 - 106,000 | N/A | N/A | $4.00 |
| | Over 106,000 | N/A | N/A | $6.14 |
| 2 Inch Meter | 0000 - 195,000 | N/A | N/A | $4.00 |
| | Over 195,000 | N/A | N/A | $6.14 |
| 3 Inch Meter | 0000 - 434,000 | N/A | N/A | $4.00 |
| | Over 434,000 | N/A | N/A | $6.14 |
| 4 Inch Meter | 0000 - 545,000 | N/A | N/A | $4.00 |
| | Over 545,000 | N/A | N/A | $6.14 |
| 6 Inch Meter | 0000 - 755,000 | N/A | N/A | $4.00 |
| | Over 755,000 | N/A | N/A | $6.14 |
| Bulk Water | | $5.00 | N/A | $6.14 |

## RATE DESIGN (Cont.)

### Service Line and Meter Installation Charges

| Meter Size | Company Current Tariff | Company Proposed Charges | Staff's Recommendation Service Line Charge | Meter Charge | Total Charge |
|---|---|---|---|---|---|
| 5/8 x 3/4-inch | $290 | $0 | $0 | $0 | $0 |
| 3/4-inch | $320 | $320 | $230 | $90 | $320 |
| 1-inch | $370 | $370 | $230 | $140 | $370 |
| 1½-inch | $545 | $545 | $280 | $265 | $545 |
| 2-inch | $750 | $750 | $330 | $420 | $750 |
| 3-inch | $980 | $980 | $380 | $600 | $980 |
| 4-inch | $1,820 | $1,820 | $650 | $1,170 | $1,820 |
| 6-inch | $3,920 | $3,920 | $1,200 | $2,720 | $3,920 |

### Service Charges

| Service Charges | Present Rates | -Proposed Rates- Company | Staff |
|---|---|---|---|
| Establishment | $25.00 | $25.00 | $25.00 |
| Establishment (After Hours) | $40.00 | $40.00 | $40.00 |
| Reconnection (Delinquent) | $25.00 | $50.00 | $50.00 |
| Reconnection (Delinquent) after hours | N/A | $75.00 | $75.00 |
| Meter Test (if correct) | $40.00 | $75.00 | $40.00 |
| Deposit | * | * | * |
| Deposit Interest | * | * | * |
| Re-Establishment (Within 12 Months) | ** | ** | ** |
| NSF Check | $30.00 | $30.00 | $30.00 |
| Meter Re-Read (If Correct) | $10.00 | $15.00 | $15.00 |
| Deferred Payment (Per Month) | 1.50% | 1.50% | 1.50% |
| Late Fee | *** | *** | *** |
| **Monthly Service Charge for Fire Sprinkler** | | | |
| 4" or Smaller | N/A | N/A | **** |
| 6" | N/A | N/A | **** |
| 8" | N/A | N/A | **** |
| 10" | N/A | N/A | **** |
| Larger than 10" | N/A | N/A | **** |

* Per Commission Rules R14-2-403.B

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

*** 1.50% per month on the unpaid monthly balance

**** 2.00% of Monthly Minimum for a Comparable Sized Meter Connection, but no less than $10.00 per month. The Service Charge for Fire Sprinklers is only applicable for service lines separate and distinct from the primary water service line.

**A Petersen Water Company**
Docket No. W-02678A-10-0304
Test Year Ended: December 31, 2009

Schedule DRE-5

# TYPICAL BILL ANALYSIS

General Service 5/8 x 3/4 - Inch Meter

Average Number of Customers: 43

| Company Proposed | Gallons | Present Rates | Proposed Rates | Dollar Increase | Percent Increase |
|---|---|---|---|---|---|
| Average Usage | 6,875 | $30.52 | $54.44 | $23.92 | 78.4% |
| Median Usage | 3,934 | $24.06 | $41.27 | $17.21 | 71.5% |
| **Staff Recommend** | | | | | |
| Average Usage | 6,875 | $30.52 | $44.50 | $13.98 | 45.8% |
| Median Usage | 3,934 | $24.06 | $32.74 | $8.68 | 36.1% |

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

| Gallons Consumption | Present Rates | Company Proposed Rates | % Increase | Staff Proposed Rates | % Increase |
|---|---|---|---|---|---|
| 0 | $17.50 | $27.50 | 57.1% | $21.50 | 22.9% |
| 1,000 | 19.00 | 31.00 | 63.2% | 24.00 | 26.3% |
| 2,000 | 20.50 | 34.50 | 68.3% | 26.50 | 29.3% |
| 3,000 | 22.00 | 38.00 | 72.7% | 29.00 | 31.8% |
| 4,000 | 24.20 | 41.50 | 71.5% | 33.00 | 36.4% |
| 5,000 | 26.40 | 46.00 | 74.2% | 37.00 | 40.2% |
| 6,000 | 28.60 | 50.50 | 76.6% | 41.00 | 43.4% |
| 7,000 | 30.80 | 55.00 | 78.6% | 45.00 | 46.1% |
| 8,000 | 33.00 | 59.50 | 80.3% | 49.00 | 48.5% |
| 9,000 | 35.20 | 64.00 | 81.8% | 53.00 | 50.6% |
| 10,000 | 38.16 | 68.50 | 79.5% | 59.14 | 55.0% |
| 15,000 | 52.96 | 98.50 | 86.0% | 89.84 | 69.6% |
| 20,000 | 67.76 | 128.50 | 89.6% | 120.54 | 77.9% |
| 25,000 | 82.56 | 158.50 | 92.0% | 151.24 | 83.2% |
| 50,000 | 156.56 | 308.50 | 97.0% | 304.74 | 94.6% |
| 75,000 | 230.56 | 458.50 | 98.9% | 458.24 | 98.8% |
| 100,000 | 304.56 | 608.50 | 99.8% | 611.74 | 100.9% |
| 125,000 | 378.56 | 758.50 | 100.4% | 765.24 | 102.1% |
| 150,000 | 452.56 | 908.50 | 100.7% | 918.74 | 103.0% |
| 175,000 | 526.56 | 1,058.50 | 101.0% | 1,072.24 | 103.6% |
| 200,000 | 600.56 | 1,208.50 | 101.2% | 1,225.74 | 104.1% |

**Engineering Report for:**
**A. Petersen Water Company for a Rate Increase**
**Docket No. W-02678A-10-0304**

**By: Jian W Liu**
**Utilities Engineer**

**November 30, 2010**

## EXECUTIVE SUMMARY

CONCLUSIONS:

1. The Arizona Department of Environmental Quality ("ADEQ") regulates the A. Petersen Water Company (herein "A. Petersen" or "Company") system under ADEQ Public Water System I.D. No. 09-032. ADEQ has determined that this water system has no deficiencies and is currently delivering water that meets the water quality standards required by the Arizona Administrative Code, Title 18, Chapter 4.

2. A. Petersen has approved Curtailment Plan and Backflow Prevention Tariffs on file with the Commission.

3. The Company is not located in any Active Management Area ("AMA") and is not subject to any AMA reporting and conservation requirements. Arizona Corporation Commission Utilities Division Staff ("Staff") received an Arizona Department of Water Resources ("ADWR") compliance status report on August 17, 2010. ADWR reported that it has determined that the Company is currently in compliance with departmental requirements governing water providers and/or community water systems.

4. Staff concludes that the A. Petersen Water system has adequate production capacity and storage capacity to serve the existing customer base and reasonable growth.

5. A check with the Utilities Division Compliance Section showed no outstanding compliance issues.

6. The Company reported 3,598,400 gallons pumped and 3,537,560 gallons sold, resulting in a water loss of 1.69% for 2009, which is within acceptable limits.

RECOMMENDATIONS

1. Staff recommends that the Company use depreciation rates by individual National Association of Regulatory Utility Commissioners category. Staff further recommends the depreciation rates presented in Table B.

2. Staff recommends an annual water testing expense of $842 be used for purposes of this application.

3. Staff recommends that the meter and service line installation charges listed in Table C be adopted.

4. Staff recommends that A. Petersen be required to coordinate the reading of its well meter and individual customer meters on a monthly basis and report this data in future Commission Annual Reports starting with its 2011 Commission Annual Report so that an accurate accounting of the non-account water can be determined on a monthly basis.

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## FIGURES


COUNTY MAP ..... FIGURE 1

CERTIFICATED AREA ..... FIGURE 2

PROCESS SCHEMATIC ..... FIGURE 3

## A. INTRODUCTION AND LOCATION OF COMPANY

On July 21, 2010, A. Petersen Water Company (herein "A. Petersen" or "Company") filed an application to increase its rates with the Arizona Corporation Commission ("ACC" or "Commission") in Docket No. W-02678A-10-0304. A. Petersen which served 46 customers, as of December 31, 2009, is located approximately 20 miles northwest of Show Low and 9 miles west of Snowflake on State Route 277 in Navajo County. Please see Figures 1 & 2.

## B. DESCRIPTION OF THE WATER SYSTEM

The plant facilities were visited on October 25, 2010 by Jian Liu, Commission Utilities Division Staff ("Staff") Utilities Engineer, in the accompaniment of Bryan Mullins, representing the Company.

The facility consists of a well, two 10,000 gallon storage tanks, one 3,000 gallon pressure tank, and a distribution system. The existing water system has adequate production, and storage capacity to serve the existing customer base. Figure 3 provides a process schematic for the water system.

*(Tabular Description of Water System)*

Well Data

| | Well No 1 |
|---|---|
| ADWR ID No. | 55-806500 |
| Casing Size | 8 inch |
| Casing Depth | 440 ft |
| Pump Size | 10 Hp |
| Pump Yield | 60 gal/min |
| | |

Storage, Pumping

| Structure or equipment | Location | Capacity |
|---|---|---|
| booster pumps | Well #1 Site | 5 and 1/3 Hp |
| pressure tank | Well #1 Site | One 3,000 gal |
| Storage tank | Well #1 Site | Two 10,000 gal |

Distribution Mains

| Diameter | Material | Length(ft) |
|---|---|---|
| 4 inch | AC and PVC | 20,000 |
| | | |

Meters

| Size (inch) | Quantity |
|---|---|
| 5/8 x 3/4 | 46 |
| | |

## C. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY COMPLIANCE ("ADEQ")

ADEQ regulates A. Petersen under ADEQ Public Water System I.D. No. 09-032. ADEQ has determined that this system has no deficiencies and is currently delivering water that meets the water quality standards required by Arizona Administrative Code, Title 18, Chapter 4. (ADEQ Compliance Status Report dated 06/30/2010).

## D. ACC COMPLIANCE

A check of the Commission Utilities Division Compliance Database indicated that there were no delinquent compliance items for A. Petersen. (ACC Compliance Section Email dated 08/17/2010)

## E. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR") COMPLIANCE

A. Petersen is not located in any Active Management Area ("AMA") and is not subject to any AMA reporting and conservation requirements. Staff received an ADWR compliance status report on August 17, 2010. ADWR reported that it has determined that the Company is currently in compliance with departmental requirements governing water providers and/or community water systems.

## F. WATER TESTING EXPENSES

The Company is subject to mandatory participation in the Monitoring Assistance Program ("MAP"). Participation in the MAP program is mandatory for water systems, which serve less than 10,000 persons (approximately 3,300 service connections).

The Company reported its water testing expense at $842 during the 2009 test year. Staff has reviewed documentation provided by the Company in support of this amount and finds the Company's reported expense for water testing of $842 reasonable. Table 1 provides an itemized list of the Company's testing expenses with participation in the MAP.

**Table 1 Water Testing Cost**

| Monitoring (Tests per 3 years, unless noted.) | Cost per test | No. of tests per 3 years | Total 3 year cost | Annual Cost |
|---|---|---|---|---|
| Bacteriological – monthly | $20 | 36 | 720 | 240 |
| MAP – IOCs, SOCs, & VOCs | MAP | MAP | MAP | 362 |
| Lead & Copper | 48* | 15 | 720 | 240 |
| Total | | | | **$842** |

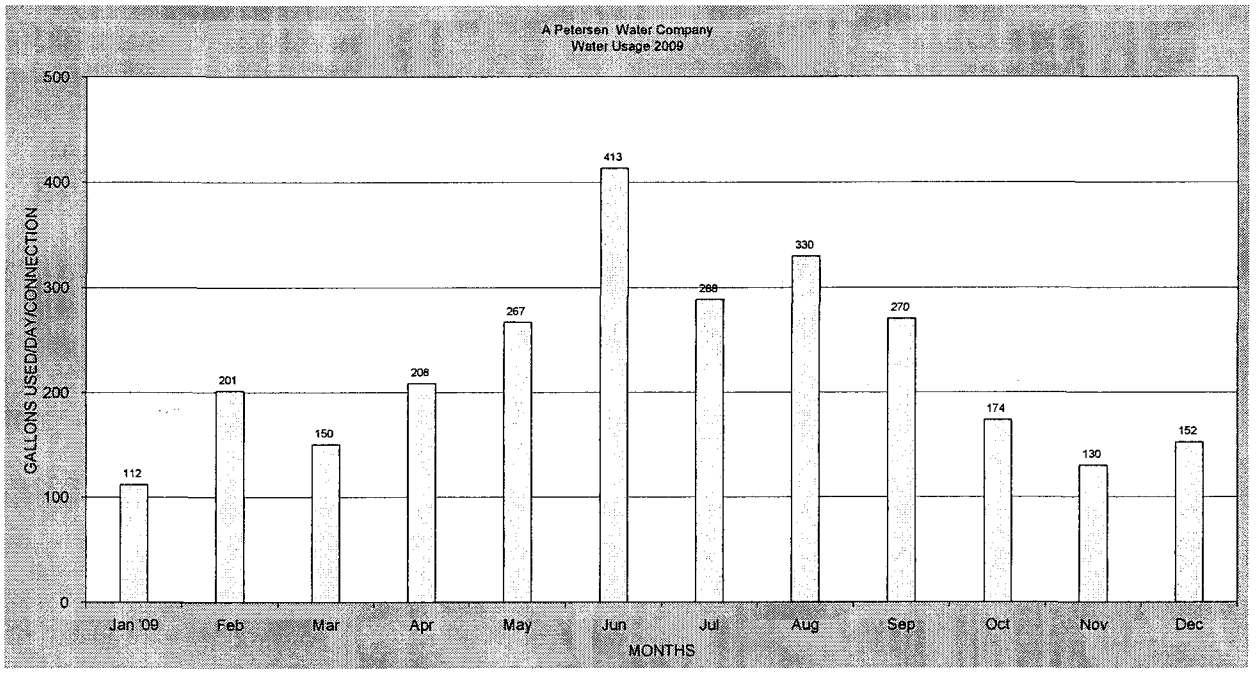
Note: ADEQ's MAP invoice for the 2009 calendar year was $361.91
* Based on Company invoice.

Staff recommends the annual water testing expense of $842 be used for purposes of this application.

## G. WATER USE

Water Sold

Based on the information provided by the Company, water use for the year 2009 is presented below. The high monthly domestic water use was 413 gal/day per service connection in June and the low monthly domestic water use was 112 gal/day per service connection in January. The average annual use was 225 gal/day per service connection.




Non-account Water

Non-account water should be 10 percent or less and never more than 15 percent. It is important to be able to reconcile the difference between water sold and the water produced by the source. A water balance will allow a water company to identify water and revenue losses due to leakage, theft, and flushing. The Company reported 3,598,400 gallons pumped and 3,537,560 gallons sold, resulting in a water loss of 1.69% on an annual basis for 2009, which is within acceptable limits. Water use data reported by the Company in its 2007 and 2008 Annual Reports indicate an annual water loss of 6.47% for 2007, and an annual water loss of 1.01% for 2008. Both are within acceptable limits.

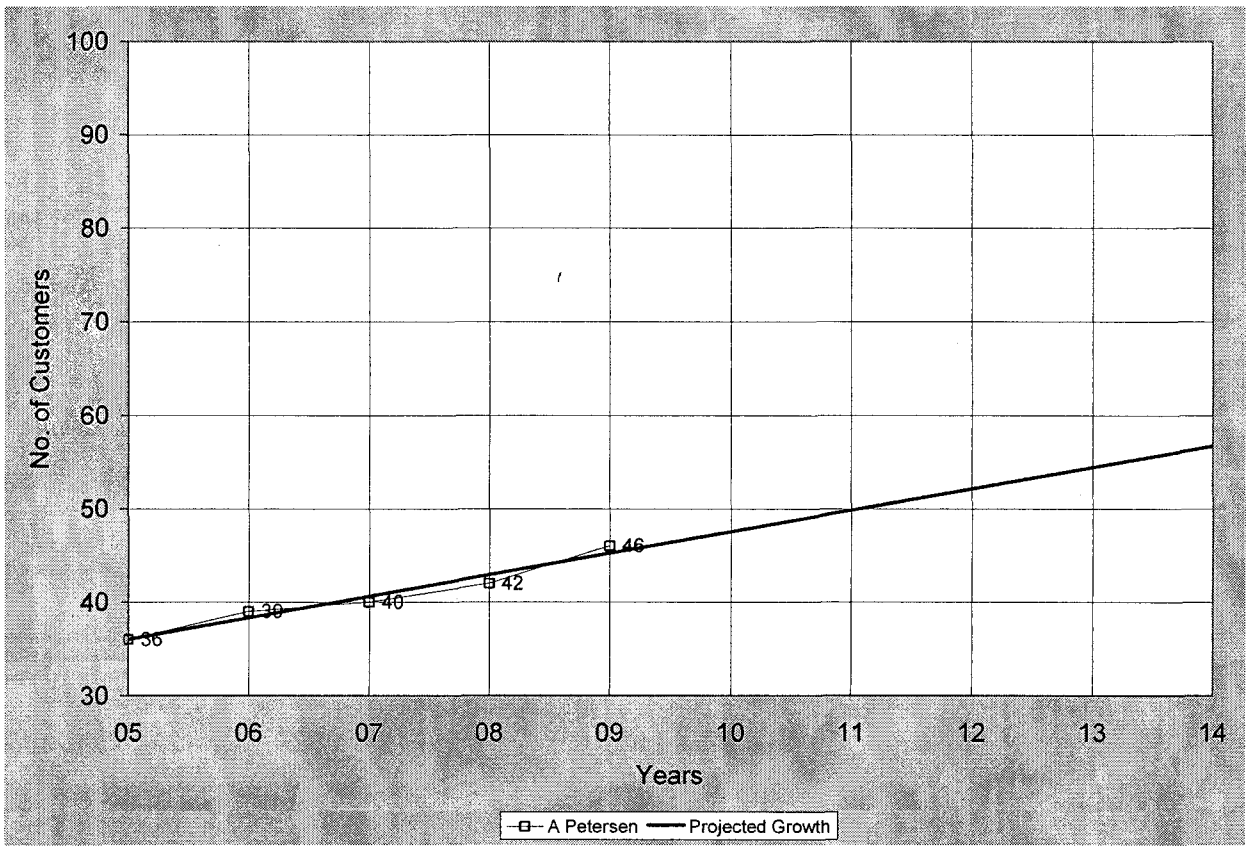
It appears that the Company has failed to coordinate the reading of its source meter with when it reads customer meters, historical monthly water use data reported as sold in several months exceeds the water pumped therefore, Staff recommends that A. Petersen be required to coordinate the reading of its well meter and individual customer meters on a monthly basis and report this data in future Commission Annual Reports starting with its 2011 Commission Annual Report so that an accurate accounting of the non-account water can be determined on a monthly basis for this small system.

## H. GROWTH

Figure 4 details the customer growth using linear regression analysis. The number of service connections was obtained from annual reports submitted to the Commission. During the test year 2009, the Company had 46 customers and it is projected that the Company could have

approximately 57 customers by 2014. However, Staff believes it is unlikely that this growth rate will continue in the current economic climate and believes that it would be premature to burden such a small Company and its customers with a requirement to install additional storage capacity when it may not be needed. Staff would also point out that while the existing water system is close to needing additional storage, the existing water system can adequately support 121 additional connections based on production.[1] Because the water system has adequate well capacity to serve based on the historical growth, Staff concludes that the Company has adequate capacity to serve existing customer base and reasonable expected growth.

Figure 4 Projected Growth




## I. DEPRECIATION RATES

Staff recommends that the Company use depreciation rates by individual National Association of Regulatory Utility Commissioners ("NARUC") category. Staff further recommends the depreciation rates presented in Table B.

[1] Based on 2009 water use data.

Table B. Depreciation Rates

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

NOTES:

1. These depreciation rates represent average expected rates. Water companies may experience different rates due to variations in construction, environment, or the physical and chemical characteristics of the water.

2. Acct. 348, Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.

## J. CURTAILMENT PLAN AND BACKFLOW PREVENTION TARIFF

The Company has approved Curtailment Plan and Backflow Prevention Tariffs on file with the Commission.

## K. METER AND SERVICE LINE INSTALLATION CHARGES

The Company has requested to change its service line and meter installation charges. These charges are refundable advances. The Company has proposed to reduce its 5/8 X 3/4 meter charge to $0.00. The Company has told Staff that it would prefer not to charge for the 5/8 meter because the administrative cost of refunding outweighs any benefit especially for the standard meter. For the larger size meters, the Company's proposed charges are below Staff's recommended range for these charges. The Company would like to keep these charges as low as reasonable so that potential annual refunds to customers are minimized which the Company believes will create less of a financial burden for it. 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 that the charges listed under "Staff's Recommendation" in Table C be adopted.

**Table C. Service Line and Meter Installation Charges**

| Meter Sizes | Current Charges | Company Proposed Charges | Staff recommended Service Line Charges | Staff recommended *Meter Charges | Staff recommended **Total Charges** |
|---|---|---|---|---|---|
| 5/8" x 3/4" | 290 | 0 | $0 | $0 | $0 |
| 3/4" | 320 | 320 | $230 | $90 | $320 |
| 1" | 370 | 370 | $230 | $140 | $370 |
| 1-1/2" | 545 | 545 | $280 | $265 | $545 |
| 2" | 750 | 750 | $330 | $420 | $750 |
| 3" | 980 | 980 | 380 | 600 | 980 |
| 4" | 1,820 | 1,820 | 650 | 1,170 | 1,820 |
| 6" | 3,920 | 3,920 | 1,200 | 2,720 | 3,920 |

*Note: Meter charge includes meter box or vault.

## L. FINANCING APPLICATION

On July 21, 2010, A. Petersen filed an application for financing authorization with the Commission in Docket No. W-02678A-10-0303.

This financing is not intended for the purpose of funding capital improvements rather the Company is requesting authorization to borrow funds to cover expenses associated with the operations of the Company.

A. Petersen Water Company
Docket No. W-02678A-10-0304

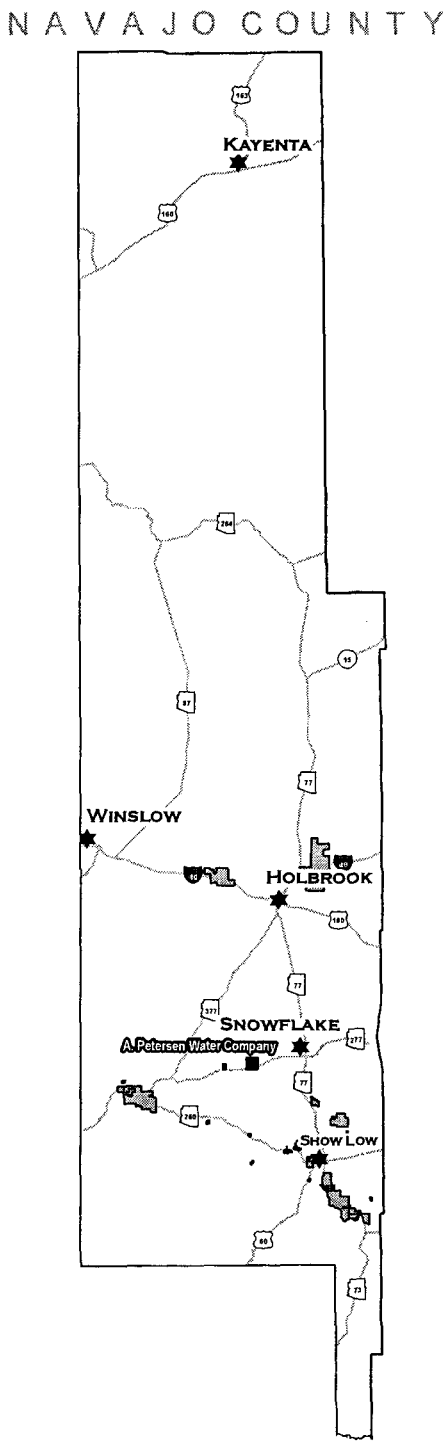



Figure 1: County Map

A. Petersen Water Company
Docket No. W-02678A-10-0304

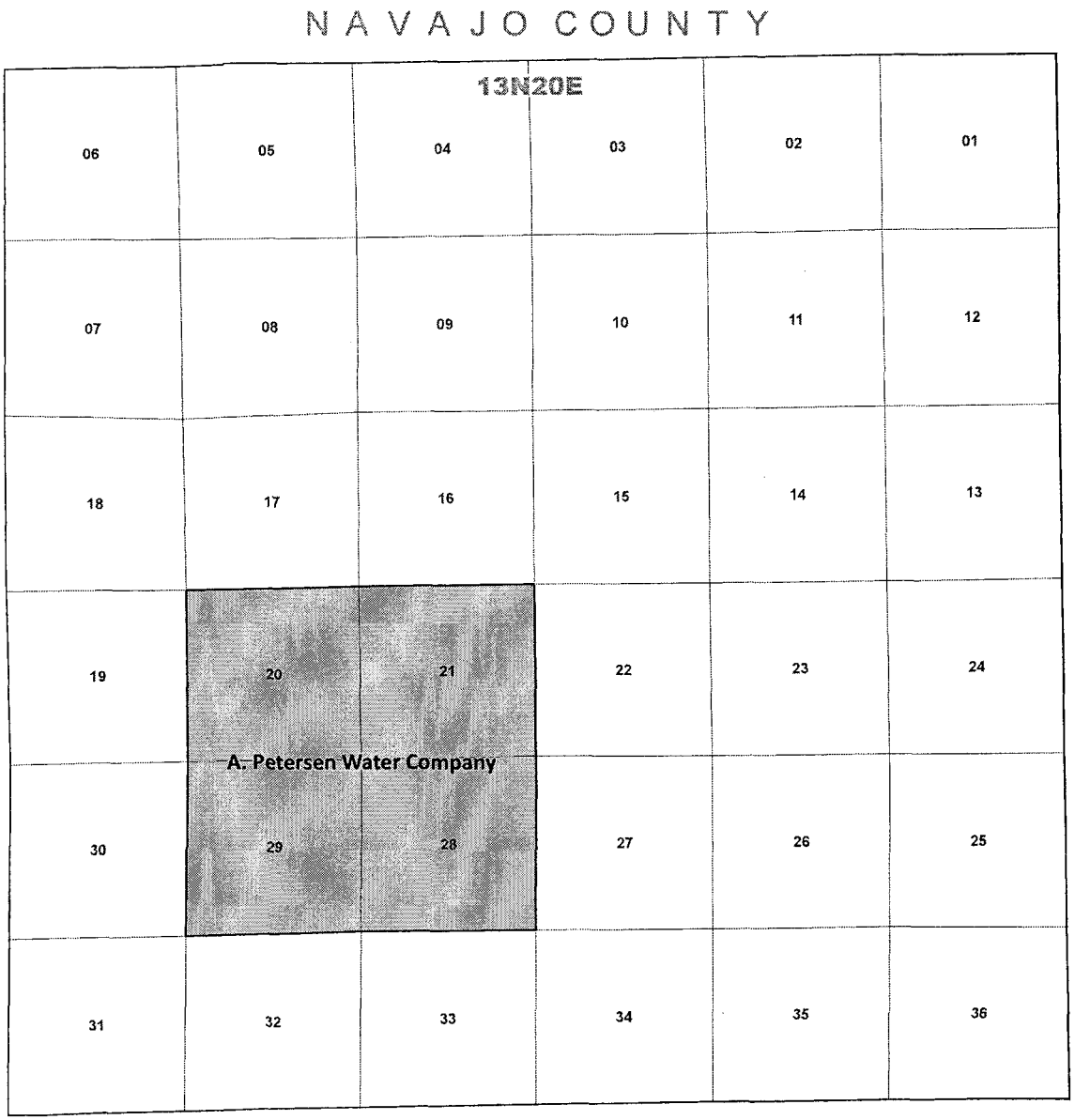
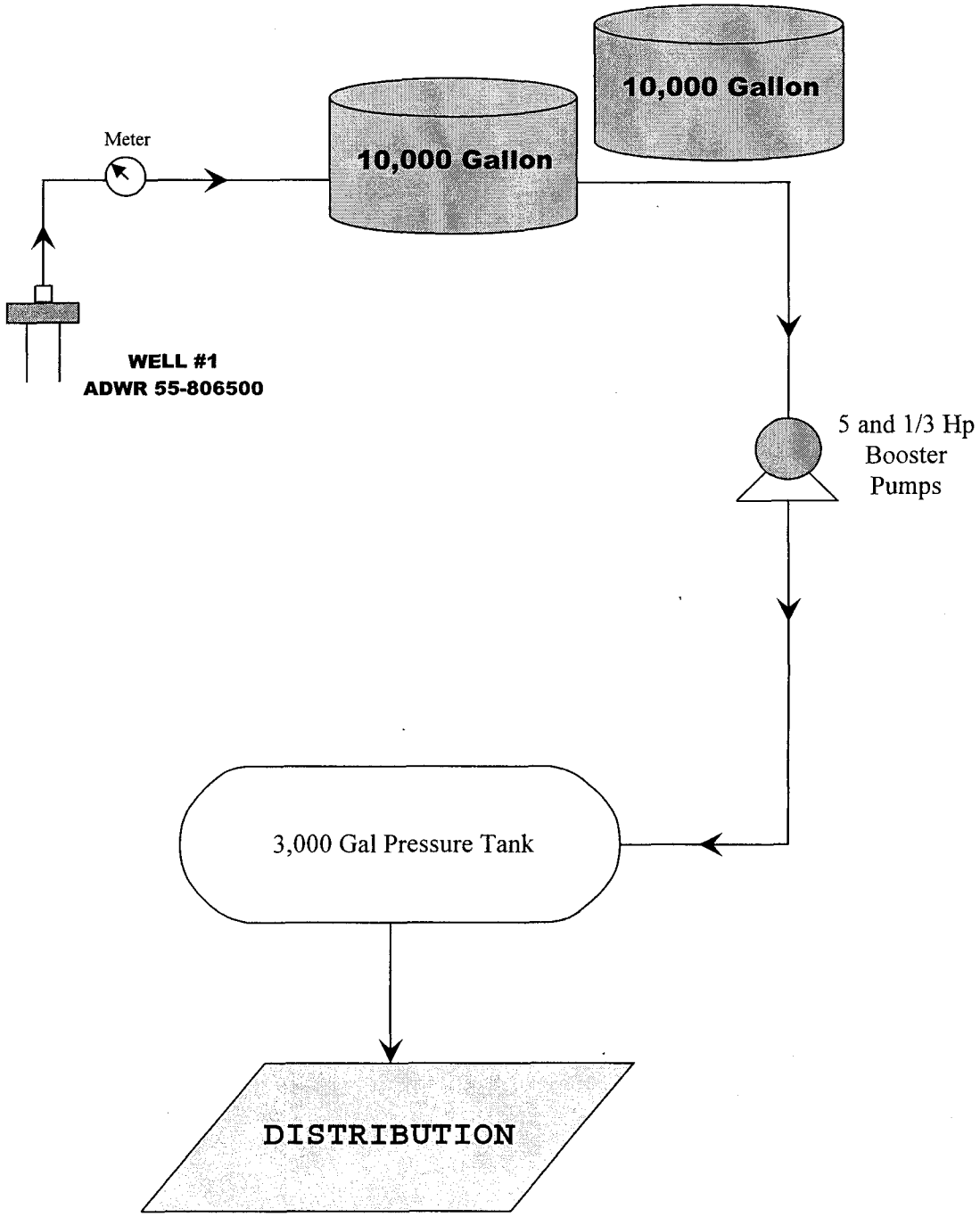



Figure 2: Certificated Area




A. Petersen Water Company
Docket No. W-02678A-10-0304
Process Schematic
PWS 09-032