



0000165905

MEMORANDUM

TO: Docket Control Center

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

ORIGINAL

DATE: August 26, 2015

RE: STAFF REPORT FOR CEDAR GROVE WATER, INC. APPLICATION FOR
THE APPROVAL OF A RATE INCREASE (DOCKET NO. W-20541A-15-0119)

Attached is the Staff Report for Cedar Grove Water, Inc.'s application for approval of a rate increase. Staff recommends approval of a rate increase in accordance with Staff's recommendations.

TMB:BAB:red

Originator: Briton A. Baxter

Arizona Corporation Commission
DOCKETED
AUG 26 2015
DOCKETED BY *[Signature]*

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Service List for: Cedar Grove Water, Inc.
Docket No. W-20541A-15-0119

Cedar Grove Water, Inc.
PO Box 364
Overgaard, Arizona 85933

Mr. Thomas Grapp
PO Box 85160
Tucson, Arizona 85754

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**

CEDAR GROVE WATER, INC.

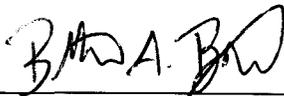
DOCKET NO. W-20541A-15-0119

APPLICATION FOR A RATE INCREASE

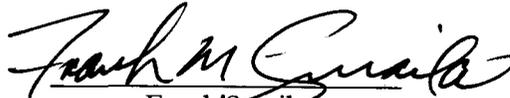
AUGUST 26, 2015

STAFF ACKNOWLEDGMENT

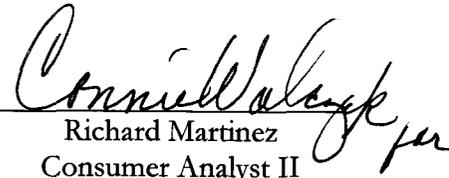
The Staff Report for Cedar Grove Water, Inc., Docket No. W-20541A-15-0119, was the responsibility of the Staff members listed below. Briton Baxter was responsible for the review and analysis of the Company's application, recommended revenue requirements, rate base and rate design. Frank Smaila was responsible for the engineering and technical analysis. Richard Martinez was responsible for reviewing the Commission's records on the Company, determining compliance with Commission policies/rules and reviewing customer complaints filed with the Commission.



Briton A. Baxter
Public Utility Analyst IV



Frank Smaila
Utilities Engineer



Richard Martinez
Consumer Analyst II

**EXECUTIVE SUMMARY
CEDAR GROVE WATER, INC.
DOCKET NO. W-20541A-15-0119**

Cedar Grove Water, Inc. ("Cedar Grove" or "Company") is a Class D water utility that provides potable water service to approximately 377 customers and its current rates became effective April 4, 2012, per Arizona Corporation Commission ("Commission") Decision No. 73084. The Company is located approximately 12 miles east of Show Low in Apache County, Arizona.

The Company proposed rates would increase revenue by \$89,087, or 50.14 percent over test year revenues of \$177,685 to \$266,772, which would result in an operating income of \$61,633. This equates to a 154.72 percent rate of return on the Company-proposed fair value rate base ("FVRB"), which is also its original cost rate base ("OCRB"), of \$39,836. The Company's proposed rates would yield a positive cash flow of \$75,891. Under the Company proposed rates, the typical residential monthly bill, with median use of 2,482 gallons, would increase from \$30.57 to \$47.16, an increase of \$16.59 or 54.3 percent.

Staff recommends rates that would increase revenue by \$36,317, or 20.44 percent over test year revenues of \$177,685 to \$214,002, which would result in an operating income of \$28,881. This equates to a 127.81 percent rate of return on Staff's adjusted OCRB of \$22,597. Staff's recommended rates would yield a positive cash flow of \$41,457. Staff's recommended rates produce a debt service coverage ratio ("DSC") of 4.81, which is sufficient cash flow to meet the DSC of 1.20, required for its debt covenant with the Water Infrastructure Finance Authority of Arizona ("WIFA"), to meet normal operating expenses, for the Company to address the recommended repairs to the system, and to fund other contingencies. Under the Staff recommended rate design, the typical residential monthly bill, with median use of 2,482 gallons, would increase from \$30.57 to \$36.76, for an increase of \$6.19, or 20.2 percent.

Staff recommends:

1. Approval of Staff's rates and charges as shown in Schedule BAB-4.
2. In the future, the Company should be directly charged for the salaries and wages of the system operator for the time spent working specifically on the Cedar Grove system, rather than these expenses being included in the shared costs allocation pool.
3. That the Company be ordered to use a 4-factor allocation to charge indirect or shared costs.
4. That the Commission put Cedar Grove on notice that for the next rate case they file, the application will not be found sufficient until and unless they are using the recommended 4-factor allocation method to allocate shared costs.
5. Staff recommends that the Company file with Docket Control, as a compliance item in this docket and within 90 days of the effective date of a decision in this proceeding, documentation demonstrating that the 26 individually metered loadout

yard hydrants and mobile water tank filling procedure is approved by the Arizona Department of Environmental Quality ("ADEQ").

6. The new rates approved in this case not be effective until after the Company files with Docket Control, as a compliance item in this docket, documentation the Company is requesting ADEQ to inspect that the 26 individually metered loadout yard hydrants and the mobile water tank filling procedure are in compliance with ADEQ rules and regulations.
7. Authorizing the depreciation rates listed in Table 7 of the Engineering report.
8. That the Company file with Docket Control, as a compliance item in this docket within 90 days of the effective date of a decision in this proceeding, documentation demonstrating that the Company installed water shutoff means on the manually filled storage tank to eliminate water loss due to overflow.
9. That the Company file with Docket Control, as a compliance item in this docket within 90 days of the effective date of a decision in this proceeding, documentation demonstrating that the Company communicated with Vernon Fire Department, by letter, regarding the necessity of the fire department reporting water usage, communication procedures and verification on amount of water used.
10. Staff recommends that within 180 days of the effective date of the order in this matter Cedar Grove correct substandard (loose and/or exposed) wiring at the Sunrise Vista well site, Eagle Ridge well site, Well No. 2 well site, Warehouse Building and Rippy Booster Station, as a compliance item with the Commission's Docket Control, documentation demonstrating that the improvements have been completed.

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FACT SHEET

Company: Cedar Grove Water, Inc.

Type of Ownership: Arizona Sub-Chapter S Corporation.

Location: Approximately 12 miles east of Show Low in Apache County, Arizona.

Active Management Area: The Company is not located in any Arizona Department of Water Resources' Active Management Area.

Filing information: Permanent rate increase application filed April 4, 2015. The application became sufficient on June 12, 2015.

Current Rates: Decision No. 73084 dated April 4, 2012.

Current Test Year Ended: December 31, 2014.

Monthly Minimum Rates

	Company Current <u>Rates</u>	Company Proposed <u>Rates</u>	Staff Recommended <u>Rates</u>
Residential Monthly Minimum Charge:			
5/8 x 3/4 – inch meter	\$22.50	\$34.75	\$27.20
1 – inch meter	\$56.25	\$86.85	\$60.95
2 – inch meter	\$180.00	\$277.92	\$184.70
Commodity Rates:			
<u>5/8 X 3/4-Inch Meter</u>			
0 to 3,000 gallons	\$3.25	\$5.00	\$3.85
3,001 to 9,000 gallons	\$5.00	\$7.75	\$6.10
Over 9,000 gallons	\$7.00	\$10.80	\$8.55
<u>1-Inch Meter</u>			
First 13,000 gallons	\$3.25	\$5.00	\$6.10
Over 13,000 gallons	\$5.00	\$7.00	\$8.55
<u>2-Inch Meter</u>			
First 70,000 gallons	\$3.25	\$5.00	\$6.10
Over 70,000 gallons	\$5.00	\$7.00	\$8.55
Bulk Water	\$7.00	\$10.80	\$8.55

Typical 5/8 x 3/4-inch residential bill:

Average use (3,485 gallons)	\$34.67	\$53.51	\$41.71
Median use (2,482 gallons)	\$30.57	\$47.16	\$36.76

Customers:

Average Number of customers in the current test year (12/31/14): 377

Current test year customers by meter size:

5/8 X 3/4 – inch	375
1 – inch	1
2 – inch	1

Notifications:

An affidavit of mailing of the customer notification was filed on April 7, 2015.

Opinions:

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

Percentage of opinions to customer base: 1.33 percent (5 / 377).

SUMMARY OF FILING

Cedar Grove Water, Inc. ("Cedar Grove" or "Company") proposed an \$89,087, or a 50.14 percent increase over the test year revenue of \$177,685 to \$266,772. The Company's proposed revenue would result in operating income of \$61,633. This equates to a 154.72 percent rate of return on the Company-proposed fair value rate base ("FVRB"), which is also its original cost rate base ("OCRB"), of \$39,836. The Company's proposed rates would yield a positive cash flow of \$75,891. The Company's proposed rate increase would increase the typical residential 5/8 x 3/4-inch meter bill, with a median usage of 2,482 gallons, from \$30.56 to \$47.16, for an increase of \$16.59, or 54.3 percent.

The test year results as adjusted by Utilities Division Staff ("Staff") for the Company show total operating revenue of \$177,685, an operating loss of \$2,479 and a cash flow of \$10,097, as shown on Schedule BAB-1. The OCRB as adjusted by Staff is \$22,597.

Staff recommends a \$36,317 or a 20.44 percent increase over the test year revenue of \$177,685 to \$214,002. Staff's recommended revenues would result in an operating income of \$28,881. This equates to a 127.81 percent rate of return on Staff's adjusted OCRB of \$22,597. Staff's recommended rates would yield a positive cash flow of \$41,457. Staff's recommended rates produce a debt service coverage ratio ("DSC") of 4.81, which is sufficient cash flow to meet the DSC of 1.20, required for its debt covenant with the Water Infrastructure Finance Authority of Arizona ("WIFA"), to meet normal operating expenses, for the Company to address the recommended repairs to the system, and to fund other contingencies. Staff's recommended rates would increase the typical residential 5/8 x 3/4-inch meter bill, with a median usage of 2,482 gallons, from \$30.56 to \$36.76, for an increase of \$6.19, or 20.2 percent.

COMPANY BACKGROUND

Cedar Grove is an Arizona Sub-Chapter S corporation, Class D water provider authorized to provide potable water service to customers approximately 12 miles east of Show Low, in Apache County, Arizona along State Highway 60. The Company's service territory encompasses approximately eight square miles. On April 9, 2015, Cedar Grove filed an application for a permanent rate increase with the Arizona Corporation Commission ("Commission"). On June 12, 2015, Staff issued a Letter of Sufficiency. During the test year ended December 31, 2014, the Company provided potable water service to approximately 377 customers. The Company's customers are primarily residential users with 5/8 x 3/4-inch meters. The current permanent rates were authorized by Decision No. 73084 in April, 2012.

The Company was acquired from Sunrise Vista Estates Water Co. and the sale of its assets and the transfer of its Certificate of Convenience & Necessity ("CC&N") were approved by the Commission in Decision No. 57990, dated August 26, 1992. The owners of Cedar Grove, also own several other regulated utilities and other unregulated companies that all share facilities and services¹.

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

CONSUMER SERVICES

A review of Consumer Services records for the time frame of January 1, 2012 through present date reflects seven complaints have been filed.

- 2015 One: Billing-Late deferred arrangements
- 2014 One: Disconnect/Termination-Notice requirements
- 2013 Two: One Other-Non Jurisdictional
One Quality of Service – Misinformation
- 2012 Three: One Quality of Service for Response time
Two Quality of Service for Disc/Term - Notice requirement

All complaints have been resolved and closed.

An affidavit of mailing of the customer notification was filed on April 7, 2015.

Cedar Grove is in good standing with the Corporations Division of the Commission.

COMPLIANCE

The Utilities Division Compliance Section shows no outstanding compliance issues.

The Company is current on its property and sales tax payments.

Cedar Grove is currently in compliance with Arizona Department of Water Resources (“ADWR”) requirements and is delivering water that meets water quality standards.

ENGINEERING ANALYSIS

Staff inspected Cedar Grove’s plant facilities on May 5, 2015. A complete discussion of Staff’s technical findings and recommendations and a complete description of the water system are provided in the attached Engineering Report.

RATE BASE

Staff’s two rate base adjustments result in a net decrease to the Company’s proposed rate base by \$17,239, from \$39,836 to \$22,597, as shown in Schedule BAB-2, page 1. Details of Staff’s adjustments are explained below.

Accumulated Depreciation – Adjustment A increases accumulated depreciation by \$14,092, from \$281,039 to \$295,131, as shown on Schedule BAB-2, pages 1 and 3. Staff calculated an accumulated depreciation balance by adding depreciation expense for the years 2010-2014 using a

1/2-year convention for Additions and Retirements, and subtracting accumulated depreciation for recorded plant retirements.

Working Capital – Adjustment B decreases the Company's proposed operations and maintenance portion of cash working capital by \$3,147, from \$21,849 to \$18,702. The Company calculated a working capital allowance, consisting of cash working capital using the formula method, which is 1/24 of purchased power expense and 1/8 of operations and maintenance expense using proposed expenses in its calculation. Staff's calculation used the same formula after giving consideration to the adjusted test year expenses, as shown on Schedule BAB-3, page 1.

Based on the forgoing, Staff recommends the Commission determine for ratemaking purposes, that the Company's Plant in Service is \$763,860, the accumulated depreciation is \$295,131, and the rate base is \$22,597, as shown on Schedule BAB-2, pages 1-3.

Affiliated Companies and Allocations

Cedar Grove is one of five companies² operated from an office located at 501A Apache County Road 3148 in Show Low, Arizona. All five companies are owned by Mr. Grapp and are Commission-regulated with the exception of Cedar Grove Water Management Company. The owner uses shared services to manage and operate the five companies that include, but are not limited to, employees, outside services, transportation, building space, office supplies, insurance, and other various services. Also, included is Mr. Grapp's officer's salary that is allocated among the four regulated companies.

Additionally, Mr. Grapp owns a payroll company (Four Star Land Development) that processes payroll for the four regulated companies. Four Star Land Development is not located at the same office as the other five companies. The Company states that no affiliate profit is included in the billings received from any affiliate company.

The primary goal of cost allocation is to prevent or limit any cross-subsidization of customers from one company by customers of another company. Staff reviewed the allocation methodology used by Cedar Grove and found that the shared expenses are allocated based on a single factor (the number of customers per regulated utility). The single factor allocation methodology that the Company uses is inappropriate because it always results in the utility company 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, the owner's salary is allocated among the four regulated utilities based on the number of customers per utility. The owner could, in any given year, spend significantly more time on one of his two smaller utilities (e.g., Vernon Valley which has approximately 20 customers) due to complex and/or high numbers of problems arising in it as compared to Cedar Grove (which has approximately 377 customers). If this occurs, the cost causation ratemaking principle indicates that

² A Petersen Water Company; Cedar Grove Water Management Company; Cedar Grove Water Company, Inc.; Vernon Valley Water Company, Inc.; and Watco, Inc.

Vernon Valley be allocated most of the owner's officer's salary. However, under the Company's present methodology, Cedar Grove would be unfairly allocated most of the officer's salary.

The National Association of Regulatory Commissioners ("NARUC") Guideline for Cost Allocations and Affiliate Transactions states in part that; the primary cost driver of common costs, or a relevant proxy in the absence of a primary cost driver, should be identified and used to allocate the cost between regulated and non-regulated services or products. It also states that, to the maximum extent practicable, in consideration of administrative costs, costs should be collected and classified on a direct basis for each asset, service or product provided. In addition, the guidelines state 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. (Emphasis added).

Staff utilized the NARUC Cost Allocation guidelines to identify four relevant cost drivers of the Company's indirect shared expenses. The equally weighted factors used in calculating the general allocation percentage are as follows:

1. Direct labor hours of employees - because the amount of time spent working directly for a given company indicates greater need for that company.
2. Direct operating expense - because the more expenses there are for a particular company, the more accounting functions will be required such as processing invoices and paying vendors.
3. Number of customers - because services such as billing and meter reading are driven by the number of customers in each company.
4. Net plant - because the amount of plant in service has a direct impact on the amount of work required to keep each system running in comparison to the other systems.

Staff's calculation of the four-factor general allocation percentage is shown on BAB-3, Page 7. Staff recommends that Cedar Grove adopt Staff's four-factor allocation methodology. Staff's methodology produces a more equitable allocation of shared indirect expenses because it more closely follows the NARUC Cost Allocation guidelines of identifying relevant cost drivers and utilizing direct costs to the extent possible.

STATEMENT OF OPERATING INCOME

Operating Expenses

Staff's 10 adjustments to operating expenses resulted in a net decrease of \$24,975, from \$205,139 to \$180,164, as shown on Schedule BAB-3, pages 1-8. Details of Staff's adjustments are discussed below.

Salaries and Wages – Adjustment A decreases salaries and wages expense by \$19,906, from \$102,331 to \$82,425, as shown on Schedule BAB-3, pages 1 and 2. This adjustment reflects Staff's recalculation of salaries and wages expense as a result of using the recommended 4-factor allocation method.

Repairs and Maintenance – Adjustment B increases repairs and maintenance expense by \$872, from \$2,266 to \$3,138, as shown on Schedule BAB-3, pages 1 and 2. This adjustment reflects Staff's normalization adjustment that used the average of 2010 (Staff adjusted last rate case) through 2014 (test year) repair and maintenance expenses.³

Office supplies and expense – Adjustment C decreases office supplies and expense by \$476, from \$4,435 to \$3,959, as shown on Schedule BAB-3, pages 1 and 2. This adjustment reflects Staff's recalculation of office supplies and expense as a result of using the recommended 4-factor allocation method.

Outside Services – Adjustment D decreases outside services expense by \$708, from \$24,676 to \$23,968, as shown on Schedule BAB-3, pages 1 and 3. This adjustment reflects Staff's recalculation of outside services expense as a result of using the recommended 4-factor allocation method.

Water Testing – Adjustment E decreases water testing expense by \$320, from \$2,153 to \$1,833, as shown on Schedule BAB-3, pages 1 and 3. The water testing expense category is adjusted to reflect Staff's estimated annual average water testing expenses, including Monitoring Assistance Program fees.⁴

Rents – Adjustment F decreases rents expense by \$2,644, from \$15,510 to \$12,866, as shown on Schedule BAB-3, pages 1 and 3. This adjustment reflects Staff's recalculation of rents expense as a result of using the recommended 4-factor allocation method.

Transportation Expense – Adjustment G decreases transportation expense by \$1,269, from \$10,008 to \$8,739, as shown on Schedule BAB-3, pages 1 and 3. This adjustment reflects Staff's recalculation of transportation expense as a result of using the recommended 4-factor allocation method.

Insurance - Health and Life – Adjustment H decreases general liability insurance expense by \$724, from \$4,058 to \$3,334, as shown on Schedule BAB-3, pages 1 and 4. This adjustment reflects Staff's recalculation of transportation expense as a result of using the recommended 4-factor allocation method.

Depreciation – Adjustment I decreases depreciation expense by \$1,682, from \$14,258 to \$12,576, as shown on Schedule BAB-3, pages 1 and 5. Staff's depreciation expense reflects application of Staff's recommended depreciation rates to Staff's recommended depreciable plant balances and offset by the amortization of Contributions in Aid of Construction.

³ Staff also identified that the Company allocated some repairs and maintenance expenses and Insurance – General Liability, however, applying the Staff recommended 4-factor allocation percentage to these cost pools resulted in a minimal adjustment that Staff determined was immaterial.

⁴ See Staff Engineering Report, Attachment A, pages 10 and 11 for more details.

Property Taxes – Adjustment J increases property tax expense by \$1,882, from \$3,470 to \$5,352, as shown on Schedule BAB-3, pages 1 and 6. This adjustment reflects Staff's recalculation of property tax expense.

Income Tax Expense – The Company did not propose an income tax expense for the test year, and Staff calculated an adjusted net loss for the test year of \$3,674 and therefore doesn't recommend including an income tax expense for the test year. However, based on Staff's recommended increase in revenues, Staff recommends a corresponding income tax expense of \$4,592, as shown on Schedule BAB-3, page 8.

Other Expenses

Staff also recommends one adjustment to a below-the-line non-operating expense.

Interest Expense – Adjustment K decreases interest expense by \$3,106, from \$4,301 to \$1,195, as shown on Schedule BAB-3, pages 1 and 4. This adjustment reflects Staff's calculation of interest expense based on supporting documentation.

REVENUE REQUIREMENT

Staff recommends a \$36,317, or 20.44 percent, increase over the test year revenue of \$177,685 to \$214,002. Staff's recommended revenues would result in an operating income of \$28,881, for a 127.81 percent rate of return on the Staff adjusted rate base of \$22,597, as shown on Schedule BAB-1. Staff's recommended rates produce a DSC of 4.81 as shown on Schedule BAB-6, which is sufficient cash flow to comfortably exceed the DSC of 1.20, required for its debt covenant with the WIFA, to meet normal operating expenses, for the Company to address the recommended repairs to the system, and to fund other contingencies.

RATE DESIGN

Schedule BAB-4 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 2,478 gallons from \$30.56 to \$47.14, for an increase of \$16.58, or 54.3 percent, as shown on Schedule BAB-5.

Staff's recommended rates would increase the typical 5/8 x 3/4-inch meter residential bill with a median usage of 2,478 gallons from \$30.56 to \$36.76, for an increase of \$6.19, or 20.2 percent, as shown on Schedule BAB-5.

MISCELLANEOUS SERVICE CHARGES

Service Establishment Charge – The Company proposes to increase the service establishment charge from \$25.00 to \$30.00. Staff recommends approval of a service establishment charge of \$30.00.

Reconnect (Delinquent) Charge – The Company proposes to decrease the reconnect (delinquent) charge from \$50.00 to \$30.00. The current charge is in the high range and twice the current establishment charge which requires more work. Staff is in agreement with the Company on reducing the reconnect (delinquent) charge from \$50.00 to \$30.00 to be in line with the establishment charge.

After Hours Service Charge – The Company proposes to increase the after hours service charge from \$25.00 to \$35.00. Staff agrees with the Company's proposed after hours service charge of \$35.00. The after-hours charge would be in addition to any and all applicable charges for performing the service during normal business hours. This charge is appropriate to accommodate customers who request service outside of the Company's normal business hours.

Meter Re-read (If Correct) – The Company proposes to increase the meter re-read (if Correct) charge from \$15.00 to \$20.00. Staff agrees with the Company's proposed meter re-read (if correct) charge of \$20.00.

SERVICE LINE AND METER INSTALLATION CHARGES

The Company did not request and Staff does not recommend any changes to the service line and meter installation charges as shown on page 13 of the Engineering Report and Schedule BAB-4.

STAFF RECOMMENDATIONS

Staff recommends:

1. Approval of Staff's rates and charges as shown in Schedule BAB-4.
2. In the future, the Company should be directly charged for the salaries and wages of the system operator for the time spent working specifically on the Cedar Grove system, rather than these expenses being included in the shared costs allocation pool.
3. That the Company be ordered to use a 4-factor allocation to charge indirect or shared costs.
4. That the Commission put Cedar Grove on notice that for the next rate case they file, the application will not be found sufficient until and unless they are using the recommended 4-factor allocation method to allocate shared costs.

5. Staff recommends that the Company file with Docket Control, as a compliance item in this docket and within 90 days of the effective date of a decision in this proceeding, documentation demonstrating that the 26 individually metered loadout yard hydrants and mobile water tank filling procedure is approved by the Arizona Department of Environmental Quality ("ADEQ").
6. The new rates approved in this case not be effective until after the Company files with Docket Control, as a compliance item in this docket, documentation the Company is requesting ADEQ to inspect that the 26 individually metered loadout yard hydrants and the mobile water tank filling procedure are in compliance with ADEQ rules and regulations.
7. Authorizing the depreciation rates listed in Table 7 of the Engineering report.
8. That the Company file with Docket Control, as a compliance item in this docket within 90 days of the effective date of a decision in this proceeding, documentation demonstrating that the Company installed water shutoff means on the manually filled storage tank to eliminate water loss due to overflow.
9. That the Company file with Docket Control, as a compliance item in this docket within 90 days of the effective date of a decision in this proceeding, documentation demonstrating that the Company communicated with Vernon Fire Department, by letter, regarding the necessity of the fire department reporting water usage, communication procedures and verification on amount of water used.
10. Staff recommends that within 180 days of the effective date of the order in this matter Cedar Grove correct substandard (loose and/or exposed) wiring at the Sunrise Vista well site, Eagle Ridge well site, Well No. 2 well site, Warehouse Building and Rippy Booster Station, as a compliance item with the Commission's Docket Control, documentation demonstrating that the improvements have been completed.

SUMMARY OF FILING

	Company as Filed	Staff as Adjusted	Company Proposed	Staff Recommended
Revenues:				
Metered Water Revenue	\$175,885	\$175,885	\$264,972	\$212,202
Unmetered Water Revenue	0	0	0	0
Other Water Revenues	1,800	1,800	1,800	1,800
Total Operating Revenue	\$177,685	\$177,685	\$266,772	\$214,002
Operating Expenses:				
Operation and Maintenance	\$187,411	\$162,236	\$187,411	\$162,236
Depreciation	14,258	12,576	14,258	12,576
Property & Other Taxes	3,470	5,352	3,470	5,717
Income Tax	0	0	0	4,592
Total Operating Expense	\$205,139	\$180,164	\$205,139	\$185,121
Operating Income/(Loss)	(\$27,454)	(\$2,479)	\$61,633	\$28,881
Rate Base O.C.L.D.	\$39,836	\$22,597	\$39,836	\$22,597
Rate of Return - O.C.L.D.	N/M	N/M	154.72%	127.81%
Annual Debt Service Amount	\$9,568	\$9,568	\$9,568	\$9,568
Debt Service Coverage Ratio	N/M	1.06	7.93	4.81
Cash Flow	N/M	\$10,097	\$75,891	\$41,457
Operating Margin	N/M	N/M	23.10%	13.50%

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

ORIGINAL COST RATE BASE

	----- Original Cost -----		Staff
	Company	Adjustment	
Plant in Service	\$763,860	\$0	\$763,860
Less:			
Accum. Depreciation	281,039	14,092 A	295,131
Net Plant	\$482,821	(\$14,092)	\$468,729
Less:			
Plant Advances	\$259,859	\$0	\$259,859
Accumulated Deferred Income Taxes	0	0	0
Total Advances	\$259,859	\$0	\$259,859
Contributions Gross	\$248,377	\$0	\$248,377
Less:			
Amortization of CIAC	43,402	0	43,402
Net CIAC	\$204,975	\$0	\$204,975
Total Deductions	\$464,834	\$0	\$464,834
Plus:			
1/24 Power	\$789	\$0	\$789
1/8 Operation & Maint.	\$21,061	(\$3,147) B	\$17,914
Total Additions	\$21,849	(\$3,147)	\$18,702
Rate Base	\$39,836	(\$17,239)	\$22,597

Explanation of Adjustment:

A - Staff calculated an accumulated depreciation balance by adding depreciation expense for the years 2010-2014 using a 1/2-year convention for Additions and Retirements, and subtracting accumulated depreciation for recorded plant retirements.

B - Staff's calculation of working capital using Staff's adjusted operating expenses.

PLANT ADJUSTMENT

Line No.	Acct. No.	Description	Company Exhibit	Adjustment	Staff Adjusted
1	301	Organization Costs	\$1,000	\$0	\$1,000
2	302	Franchise Costs	500	0	500
3	303	Land & Land Rights	1,000	0	1,000
4	304	Structures & Improvements	8,770	0	8,770
5	307	Wells & Springs	19,955	0	19,955
6	310	Power Generation Equipment	0	0	0
7	311	Electric Pumping Equipment	33,702	0	33,702
8	320	Water Treatment Equipment	0	0	0
9	320.1	Water Treatment Plants	0	0	0
10	320.2	Solutions & Feeders	0	0	0
11	330	Distribution Reservoirs & Standpipes	0	0	0
12	330.1	Storage Tank	95,597	0	95,597
13	330.2	Pressure Tanks	0	0	0
14	331	Transmission & Distribution Mains	543,816	0	543,816
15	333	Services	35,871	0	35,871
16	334	Meters & Meter Installations	23,649	0	23,649
17	335	Hydrants	0	0	0
18	336	Backflow Prevention Devices	0	0	0
19	339	Other Plant & Misc. Equip.	0	0	0
20	340	Office Furniture & Fixtures	0	0	0
21	340.1	Computer & Software	0	0	0
22	341	Transportation Equipment	0	0	0
23	342	Store Equipment	0	0	0
24	343	Tools & Work Equipment	0	0	0
25	344	Laboratory Equipment	0	0	0
26	345	Power Operated Equipment	0	0	0
27	346	Communications Equipment	0	0	0
28	347	Miscellaneous Equipment	0	0	0
29	348	Other Intangibles	0	0	0
30	105	C.W.I.P.	0	0	0
31		TOTALS	\$763,860	\$0	\$763,860

ACCUMULATED DEPRECIATION ADJUSTMENT

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	7,246	292	7,538
5	307	Wells & Springs	19,955	0	19,955
6	310	Power Generation Equipment	0	0	0
7	311	Electric Pumping Equipment	25,571	(1,905)	23,666
8	320	Water Treatment Equipment	0	0	0
9	320.1	Water Treatment Plants	0	0	0
10	320.2	Solutions & Feeders	0	0	0
11	330	Distribution Reservoirs & Standpipes	0	0	0
12	330.1	Storage Tank	23,252	2,123	25,375
13	330.2	Pressure Tanks	0	0	0
14	331	Transmission & Distribution Mains	173,719	10,674	184,393
15	333	Services	14,779	1,115	15,894
16	334	Meters & Meter Installations	16,517	1,792	18,309
17	335	Hydrants	0	0	0
18	336	Backflow Prevention Devices	0	0	0
19	339	Other Plant & Misc. Equip.	0	0	0
20	340	Office Furniture & Fixtures	0	0	0
21	340.1	Computer & Software	0	0	0
22	341	Transportation Equipment	0	0	0
23	342	Store Equipment	0	0	0
24	343	Tools & Work Equipment	0	0	0
25	344	Laboratory Equipment	0	0	0
26	345	Power Operated Equipment	0	0	0
27	346	Communications Equipment	0	0	0
28	347	Miscellaneous Equipment	0	0	0
29	348	Other Intangibles	0	0	0
30		Accumulated Depreciation	<u>\$281,039</u>	<u>\$14,092</u>	<u>\$295,131</u>

REFERENCES:

Column [A]: Company Utility Plant in Service, Page 15 of the application

Column [B]: Column [C] - Column [A]

Column [C]: As calculated by Staff.

STATEMENT OF TEST YEAR OPERATING INCOME

Line No.	Acct. No.	Description	[A] Company Exhibit	[B] Staff Adjustments	[C] Staff Ref Adjusted	[D] Staff Adjustments	[E] Staff Recommended
1		Revenues:					
2	461	Metered Water Revenue	\$175,885	\$0	\$175,885	\$36,317	\$212,202
3	460	Unmetered Water Revenue	0	0	0		0
4	474	Other Water Revenues	1,800	0	1,800		1,800
5		Total Operating Revenue	\$177,685	\$0	\$177,685	\$36,317	\$214,002
6							
7		Operating Expenses:					
8	601	Salaries and Wages	\$102,331	(\$19,906) A	\$82,425	\$0	\$82,425
9	610	Purchased Water	0	0	0	0	0
10	615	Purchased Power	18,927	0	18,927	0	18,927
11	618	Chemicals	0	0	0	0	0
12	620	Repairs and Maintenance	2,266	872 B	3,138	0	3,138
13	621	Office Supplies and Expense	4,435	(476) C	3,959	0	3,959
14	630	Outside Services	24,676	(708) D	23,968	0	23,968
15	635	Water Testing	2,153	(320) E	1,833	0	1,833
16	641	Rents	15,510	(2,644) F	12,866	0	12,866
17	650	Transportation Expenses	10,008	(1,269) G	8,739	0	8,739
18	657	Insurance - General Liability	1,990	0	1,990	0	1,990
19	659	Insurance - Health and Life	4,058	(724) H	3,334	0	3,334
20	666	Regulatory Commission Expense - Rate Case	1,057	0	1,057	0	1,057
21	675	Miscellaneous Expense	0	0	0	0	0
22	403	Depreciation Expense	14,258	(1,682) I	12,576	0	12,576
23	408	Taxes Other Than Income	0	0	0	0	0
24	408.11	Property Taxes	3,470	1,882 J	5,352	365	5,717
25	670	Bad Debt Expense	0	0	0	0	0
26	409	Income Tax	0	0	0	4,592	4,592
27		Total Operating Expenses	\$205,139	(\$24,975)	\$180,164	\$4,957	\$185,121
28							
29							
30		OPERATING INCOME/(LOSS)	(\$27,454)	\$24,975	(\$2,479)	\$31,361	\$28,881
31							
32		Other Income/(Expense):					
33	427	Interest Expense	\$4,301	(\$3,106) K	\$1,195	\$0	\$1,195
34		Total Other Income/(Expense)	(\$4,301)	\$3,106	(\$1,195)	\$0	(\$1,195)
35							
36		NET INCOME/(LOSS)	(\$31,755)	\$28,081	(\$3,674)	\$31,361	\$27,686

STAFF ADJUSTMENTS

A	SALARIES AND WAGES - Per Company	\$102,331	
	Per Staff	82,425	<u>(\$19,906)</u>

To reflect Staff's calculation of the allocated portion of employee salaries using Staff's 4-factor allocation methodology, and an adjustment for the direct time for the system operator.

Allocated Salaries and Wages Expense

Full Test Year Salary	\$191,997
Remove B. Mullins full pay	54,757
Add B. Mullins allocated pay	<u>15,017</u>
Adjusted cost pool	\$152,257

	Amount before Allocation	Allocation percentage	Allocated Amount
Cedar Grove	\$152,257	43.55%	\$66,301
Watco, Inc.	152,257	47.99%	73,065
Vervon Valley	152,257	2.64%	4,021
A. Peterson	152,257	5.83%	8,870

Add B. Mullins direct pay \$16,124 \$82,425

B	REPAIRS AND MAINTENANCE - Per Company	\$2,266	
	Per Staff	<u>3,138</u>	<u>\$872</u>

To reflect Staff's pro forma adjustment to normalize repair and maintenance expenses. Staff used the average from 2010 (Staff adjusted last rate case) to 2014 (test year).

Proforma adjustment to normalize repairs and maintenance

Year	Amount
Test Year	\$2,266
2013	5,755
2012	3,783
2011	1,406
2010	<u>2,479</u>

\$3,138

C	OFFICE SUPPLIES AND EXPENSE - Per Company	\$4,435	
	Per Staff	<u>3,959</u>	<u>(\$476)</u>

To reflect Staff's calculation of the allocated portion of office supplies and expense using Staff's 4-factor allocation methodology.

Calculation of Office Supplies and Expense

Allocated expense	\$3,855
Direct expense	<u>104</u>
Total Office Supplies and Expense	\$3,959

	Amount before Allocation	Allocation percentage	Allocated Amount
Cedar Grove	\$8,852	43.55%	\$3,855
Watco, Inc.	8,852	47.99%	4,248
Vervon Valley	8,852	2.64%	234
A. Peterson	8,852	5.83%	516

STAFF ADJUSTMENTS (Cont.)

D	OUTSIDE SERVICES - Per Company	\$24,676	
	Per Staff	<u>23,968</u>	<u>(\$708)</u>

To reflect Staff's calculation of the allocated portion of outside services using Staff's 4-factor allocation methodology.

Calculation of Outside Services	
Allocated expense	\$3,262
Direct expense	<u>20,706</u>
Total Outside Services	\$23,968

	Amount before Allocation	Allocation percentage	Allocated Amount
Cedar Grove	\$7,490	43.55%	\$3,262
Watco, Inc.	7,490	47.99%	3,594
Vervon Valley	7,490	2.64%	198
A. Peterson	7,490	5.83%	436

E	WATER TESTING - Per Company	\$2,153	
	Per Staff	<u>1,833</u>	<u>(\$320)</u>

To reflect Staff's calculation of water testing expense.

F	RENTS - Per Company	\$15,510	
	Per Staff	<u>12,866</u>	<u>(\$2,644)</u>

To reflect Staff's calculation of the allocated portion of rents using Staff's 4-factor allocation methodology.

Calculation of Rents	
Allocated expense	\$12,285
Direct expense	<u>581</u>
Total Rents	\$12,866

	Amount before Allocation	Allocation percentage	Allocated Amount
Cedar Grove	\$28,212	43.55%	\$12,285
Watco, Inc.	28,212	47.99%	13,538
Vervon Valley	28,212	2.64%	745
A. Peterson	28,212	5.83%	1,644

G	TRANSPORTATION EXPENSE - Per Company	\$10,008	
	Per Staff	<u>8,739</u>	<u>(\$1,269)</u>

To reflect Staff's calculation of the allocated portion of transportation expense using Staff's 4-factor allocation methodology.

Calculation of Transportation Expense	
Allocated expense	\$8,739
Direct expense	<u>0</u>
Total Transportation Expense	\$8,739

	Amount before Allocation	Allocation percentage	Allocated Amount
Cedar Grove	\$20,069	43.55%	\$8,739
Watco, Inc.	20,069	47.99%	9,631
Vervon Valley	20,069	2.64%	530
A. Peterson	20,069	5.83%	1,169

STAFF ADJUSTMENTS (Cont.)

H	INSURANCE - HEALTH AND LIFE - Per Company	\$4,058	
	Per Staff	<u>3,334</u>	<u>(\$724)</u>

To reflect Staff's calculation of the allocated portion of health and life insurance using Staff's 4-factor allocation methodology.

Calculation of Insurance - Health and Life	
Allocated expense	\$3,334
Direct expense	<u>0</u>
Total Insurance - Health and Life	\$3,334

	Amount before Allocation	Allocation percentage	Allocated Amount
Cedar Grove	\$7,656	43.55%	\$3,334
Watco, Inc.	7,656	47.99%	3,674
Vervon Valley	7,656	2.64%	202
A. Peterson	7,656	5.83%	446

K	INTEREST EXPENSE - Per Company	\$4,301	
	Per Staff	<u>1,195</u>	<u>(\$3,106)</u>

To reflect Staff's calculation of interest expense related to the WIFA loan, based on supporting documentation.

STAFF ADJUSTMENTS (Cont.) - DEPRECIATION EXPENSE

I	DEPRECIATION - Per Company	\$14,258	
	Per Staff	12,576	(\$1,682)

To reflect Staff's calculation of deprecation expense.

Line No.	Acct. No.	Description	[A] Utility Plant in Service Balances	[B] Fully/Non-Depreciable Plant Balances	[C] Depreciable Plant In Service	[D] Deprec. Rate	[E] Depreciation Expense
Plant In Service							
1	301	Organization Costs	\$1,000	\$1,000	\$0	0.00%	\$0
2	302	Franchise Costs	500	500	0	0.00%	0
3	303	Land & Land Rights	1,000	1,000	0	0.00%	0
4	304	Structures & Improvements	8,770	0	8,770	3.33%	292
5	307	Wells & Springs	19,955	19,955	0	3.33%	0
6	310	Power Generation Equipment	0	0	0	5.00%	0
7	311	Electric Pumping Equipment	33,702	22,800	10,902	20.00%	2,180
8	320	Water Treatment Equipment					
9	320.1	Water Treatment Plants	0	0	0	3.33%	0
10	320.2	Solutions & Feeders	0	0	0	20.00%	0
11	320.3	Point-of-Use Treatment Devices	0	0	0	10.00%	0
12	330	Distribution Reservoirs & Standpipes					
13	330.1	Storage Tank	95,597	0	95,597	2.22%	2,122
14	330.2	Pressure Tanks	0	0	0	5.00%	0
15	331	Transmission & Distribution Mains	543,816	0	543,816	2.00%	10,876
16	333	Services	35,871	0	35,871	3.33%	1,195
17	334	Meters & Meter Installations	23,649	0	23,649	8.33%	1,970
18	335	Hydrants	0	0	0	2.00%	0
19	336	Backflow Prevention Devices	0	0	0	6.67%	0
20	339	Other Plant & Misc. Equip.	0	0	0	6.67%	0
21	340	Office Furniture & Fixtures	0	0	0	6.67%	0
22	340.1	Computer & Software	0	0	0	20.00%	0
23	341	Transportation Equipment	0	0	0	20.00%	0
24	342	Store Equipment	0	0	0	4.00%	0
25	343	Tools & Work Equipment	0	0	0	5.00%	0
26	344	Laboratory Equipment	0	0	0	10.00%	0
27	345	Power Operated Equipment	0	0	0	5.00%	0
28	346	Communications Equipment	0	0	0	10.00%	0
29	347	Miscellaneous Equipment	0	0	0	10.00%	0
30	348	Other Intangibles	0	0	0	0.00%	0
31	105	C.W.I.P.					
32							
33		Subtotal General	<u>\$763,860</u>	<u>\$45,255</u>	<u>\$718,605</u>		<u>\$18,635</u>
34							
35							
36		Contribution(s) in Aid of Construction (Gross)	\$248,377				
37		Less: Non Amortizable Contribution(s)	0				
38		Fully Amortized Contribution(s)	0				
39		Amortizable Contribution(s)	<u>\$248,377</u>				
40		Times: Staff Proposed Amortization Rate	2.44%				
41		Amortization of CIAC	<u>\$6,060</u>				<u>\$6,060</u>
42		Less: Amortization of Contributions					
43							
44		Staff Recommended Depreciation Expense					\$12,576
45		Company Proposed Depreciation Expense					<u>14,258</u>
46		Increase/(Decrease) to Depreciation Expense					<u><u>(\$1,682)</u></u>

STAFF ADJUSTMENTS (Cont.) - PROPERTY TAXES

J	PROPERTY TAXES - Per Company	\$3,470	
	Per Staff	5,352	<u>\$1,882</u>

To reflect Staff's calculation of property tax expense.

Line No.	Description	[A]	[B]
		Staff As Adjusted	Staff Recommended
1	Staff Adjusted Test Year Revenues	\$177,685	\$177,685
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	\$355,370	\$355,370
4	Staff Recommended Revenue	177,685	214,002
5	Subtotal (L4 + L5)	\$533,055	\$569,372
6	Number of Years	3	3
7	Three Year Average (L5 / L6)	\$177,685	\$189,791
8	Department of Revenue Multiplier	2	2
9	Revenue Base Value (L7 * L8)	\$355,370	\$379,582
10	Plus: 10% of CWIP	0	0
11	Less: Net Book Value of Licensed Vehicles	0	0
12	Full Cash Value (L9 + L10 - L11)	\$355,370	\$379,582
13	Assessment Ratio	18.00%	18.00%
14	Assessment Value (L12 * L13)	\$63,967	\$68,325
15	Composite Property Tax Rate - Obtained from ADOR	8.36740%	8.36740%
16	Staff Test Year Adjusted Property Tax Expense (L14 * L15)	\$5,352	
17	Company Proposed Property Tax	3,470	
18	Staff Test Year Adjustment (L16 - L17)	\$1,882	
19	Property Tax - Staff Recommended Revenue (L14 * L15)		\$5,717
20	Staff Test Year Adjusted Property Tax Expense (L16)		5,352
21	Increase in Property Tax Due to Increase in Revenue Requirement		<u>\$365</u>
22	Increase in Property Tax Due to Increase in Revenue Requirement (L21)		\$365
23	Increase in Revenue Requirement		\$36,317
24	Increase in Property Tax Per Dollar Increase in Revenue (L22 / L23)		1.004088%

REFERENCES:

- Line 15: Composite Tax Rate obtained from Arizona Department of Revenue
- Line 17: Company Comparative Statement of Income and Expense, Page 19 of the application
- Line 21: Line 19 - Line 20
- Line 23: Schedule BAB-1

STAFF ADJUSTMENTS (Cont.) - CALCULATION OF THE 4-FACTOR ALLOCATION

Line No.		[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]
	Company	Direct Labor Hours	Direct Labor Hours %	Direct Operating Expenses	Direct Operating Expenses %	Number of Customers	Number of Customers %	Net Plant	Net Plant %	4-factor %
1	Cedar Grove	652	54.33%	\$38,688	32.88%	383	52.32%	\$468,729	34.64%	43.55%
2	Watco	386	32.17%	69,223	58.84%	287	39.21%	835,399	61.74%	47.99%
3	Vernon Valley	15	1.21%	4,090	3.48%	20	2.73%	42,575	3.15%	2.64%
4	A. Peterson	148	12.29%	5,654	4.81%	42	5.74%	6,339	0.47%	5.83%
5	Total	1,200		\$117,655		732		\$1,353,042		
6										
7										
8	Direct Labor Hours Worked for each Company by Employees									
9	Employee Name	Cedar Grove	Watco	Vernon Valley	A. Peterson					
10	B. Mullins	652	386	14.5	147.5					
11	Total	652	386	14.5	147.5					
12										
13										
14	Direct Operating Expenses (Excluding Salaries & Wages) each Company									
15	Expense	Cedar Grove	Watco	Vernon Valley	A. Peterson					
16	Purchased Water	\$0	\$0	\$779	\$0					
17	Purchased Power	18,927	10,574	0	1,995					
18	Chemicals	0	0	417	0					
19	Water Testing	1,833	900	579	1,010					
20	Depreciation Expense	12,576	40,188	1,701	212					
21	Taxes Other Than Incon	0	9,674	507	1,440					
22	Property Taxes	5,352	7,887	107	997					
23	Total	\$38,688	\$69,223	\$4,090	\$5,654					

References:

Column [A]: The Direct Labor Hours are from timesheets, provided in response to Staff DR BAB-1.12. Only the system operator tracked his time using timesheets.

Column [B]: Column [A] / Line 5.

Column [C]: From the 2014 annual reports. Staff used the annual reports as it is the most recent, consistently prepared data for all four companies.

Column [D]: Column [C] / Line 5.

Column [E]: From the 2014 annual reports. Staff used the annual reports as it is the most recent, consistently prepared data for all four companies.

Column [F]: Column [E] / Line 5.

Column [G]: From the 2014 annual reports. Staff used the annual reports as it is the most recent, consistently prepared data for all four companies.

Column [H]: Column [G] / Line 5.

Column [I]: Average of Columns [B, D, F, and H].

STAFF ADJUSTMENTS (Cont.) - INCOME TAXES

Line No.	Description	[A]
		Staff Recommended
<i>Calculation of Income Tax:</i>		
1	Revenue (Schedule BAB-3, Page 1 Col.[C and E], Line 5	\$214,002
2	Operating Expenses Excluding Income Taxes	180,529
3	Rate Base (Schedule BAB-2 Page 1)	22,597
4	Weighted Average Cost of Debt	8.34%
5	Synchronized Interest	1,885
6	Arizona Taxable Income (L1 - L2 - L5)	31,589
7	Arizona State Income Effective Tax Rate	2.70%
8	Arizona Income Tax (L6 * L7)	\$852
9	Federal Taxable Income (L6 - L8)	30,737
10	Federal Income Tax Effective Tax Rate	12.17%
11	Total Federal Income Tax	3,741
12	Combined Federal and State Income Tax (L35 + L42)	<u>\$4,592</u>

RATE DESIGN

Monthly Usage Charge	Present Rates	Company Proposed Rates	Staff Recommended Rates
5/8" x 3/4" Meter	\$22.50	\$34.75	\$27.20
3/4" Meter	33.75	52.11	38.45
1" Meter	56.25	86.85	60.95
1½" Meter	112.50	173.70	117.20
2" Meter	180.00	277.92	184.70
3" Meter	360.00	555.84	364.70
4" Meter	562.50	868.50	567.20
6" Meter	1,125.00	1,737.00	1,129.70

Commodity Rates

<u>5/8 x 3/4" Meters</u>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 3,000 Gallons	\$3.25	\$5.00	\$3.85
From 3,001 to 9,000 Gallons	5.00	7.75	6.10
Over 9,000 Gallons	7.00	10.80	8.55
<u>3/4" Meters</u>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 3,000 Gallons	NT	NT	\$3.85
From 3,001 to 9,000 Gallons	NT	NT	6.10
Over 9,000 Gallons	NT	NT	8.55
<u>1" Meters</u>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 13,000 Gallons	\$5.00	\$7.70	\$6.10
Over 13,000 Gallons	7.00	10.78	8.55
<u>1½" Meters</u>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 50,000 Gallons	NT	NT	\$6.10
Over 50,000 Gallons	NT	NT	8.55
<u>2" Meters</u>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 70,000 Gallons	\$5.00	\$7.70	\$6.10
Over 70,000 Gallons	7.00	10.78	8.55
<u>3" Meters</u>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 150,000 Gallons	NT	NT	\$6.10
Over 150,000 Gallons	NT	NT	8.55
<u>4" Meters</u>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 300,000 Gallons	NT	NT	\$6.10
Over 300,000 Gallons	NT	NT	8.55
<u>6" Meters</u>			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
First 500,000 Gallons	NT	NT	\$6.10
Over 500,000 Gallons	NT	NT	8.55

Standpipe, Bulk Water

Per 1,000 Gallons	\$7.00	\$10.78	\$8.55
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RATE DESIGN

Service Line and Meter Installation Charges	Present 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	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3/4" Meter	90.00	230.00	320.00	90.00	230.00	320.00	230.00	90.00	320.00
1" Meter	140.00	230.00	370.00	140.00	230.00	370.00	230.00	140.00	370.00
1½" Meter	265.00	280.00	545.00	265.00	280.00	545.00	280.00	265.00	545.00
2" Meter	420.00	330.00	750.00	420.00	330.00	750.00	330.00	420.00	750.00
3" Meter	600.00	380.00	980.00	600.00	380.00	980.00	380.00	600.00	980.00
4" Meter	1,170.00	650.00	1,820.00	1,170.00	650.00	1,820.00	650.00	1,170.00	1,820.00
6" Meter	2,720.00	1,200.00	3,920.00	2,720.00	1,200.00	3,920.00	1,200.00	2,720.00	3,920.00
Service Charges									
Establishment			\$25.00			\$30.00			\$30.00
After Hours Service Charge			25.00			35.00			35.00
Reconnection (Delinquent)			50.00			30.00			30.00
Meter Test (If Correct)			50.00			50.00			50.00
Deposit			*			*			*
Deposit Interest			*			*			**
Re-Establishment (Within 12 Months)			****			****			****
NSF Check			30.00			30.00			30.00
Deferred Payment			***			***			***
Meter Re-Read (If Correct)			15.00			20.00			20.00
<p>* Per Commission Rule A.A.C. R-14-2-403(B)(7). ** Per Commission Rule A.A.C. R-14-2-403(B)(3). *** 1.50% of unpaid monthly balance. **** Month off system times the monthly minimum A.A.C. R14-2-403(D).</p> <p>In addition to the collection of regular rates, the utility will collect from its customers a proportionate share of any privilege, sales, use, and franchise tax. Per commission rule A.A.C. 14-2-409D(5).</p>									

Cedar Grove Water, Inc.
Docket No. W-20541A-15-0119
Test Year Ended December 31, 2014

Schedule BAB-5

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

Average Number of Customers: 375

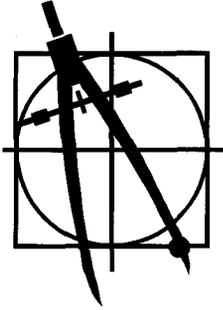
Company Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	3,485	\$34.67	\$53.51	\$18.84	54.3%
Median Usage	2,482	\$30.57	\$47.16	\$16.59	54.3%
<u>Staff Recommend</u>					
Average Usage	3,485	\$34.67	\$41.71	\$7.04	20.3%
Median Usage	2,482	\$30.57	\$36.76	\$6.19	20.2%

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

Gallons Consumption	Present Rates	Company Proposed Rates	% Increase	Staff Recommended Rates	% Increase
0	\$22.50	\$34.75	54.4%	\$27.20	20.9%
1,000	25.75	39.75	54.4%	31.05	20.6%
2,000	29.00	44.75	54.3%	34.90	20.3%
3,000	32.25	49.75	54.3%	38.75	20.2%
4,000	37.25	57.50	54.4%	44.85	20.4%
5,000	42.25	65.25	54.4%	50.95	20.6%
6,000	47.25	73.00	54.5%	57.05	20.7%
7,000	52.25	80.75	54.5%	63.15	20.9%
8,000	57.25	88.50	54.6%	69.25	21.0%
9,000	62.25	96.25	54.6%	75.35	21.0%
10,000	69.25	107.05	54.6%	83.90	21.2%
15,000	104.25	161.05	54.5%	126.65	21.5%
20,000	139.25	215.05	54.4%	169.40	21.7%
25,000	174.25	269.05	54.4%	212.15	21.8%
50,000	349.25	539.05	54.3%	425.90	21.9%
75,000	524.25	809.05	54.3%	639.65	22.0%
100,000	699.25	1,079.05	54.3%	853.40	22.0%
125,000	874.25	1,349.05	54.3%	1,067.15	22.1%
150,000	1,049.25	1,619.05	54.3%	1,280.90	22.1%
175,000	1,224.25	1,889.05	54.3%	1,494.65	22.1%
200,000	1,399.25	2,159.05	54.3%	1,708.40	22.1%

FINANCIAL ANALYSIS

Line No.		Staff Recommended
INCOME STATEMENT		
1	Operating Revenue	
2	461 Metered Water Revenue	\$212,202
3	460 Unmetered Water Revenue	0
4	474 Other Water Revenues	1,800
5	Total Operating Rev:	\$214,002
6		
7	Operating Expenses	
8	601 Salaries and Wages	82,425
9	610 Purchased Water	0
10	615 Purchased Power	18,927
11	618 Chemicals	0
12	620 Repairs and Maintenance	3,138
13	621 Office Supplies and Expense	3,959
14	630 Outside Services	23,968
15	635 Water Testing	1,833
16	641 Rents	12,866
17	650 Transportation Expenses	8,739
18	657 Insurance - General Liability	1,990
19	659 Insurance - Health and Life	3,334
20	666 Regulatory Commission Expense - Rate Case	1,057
21	675 Miscellaneous Expense	0
22	403 Depreciation Expense	12,576
23	408 Taxes Other Than Income	0
24	408.11 Property Taxes	5,717
25	670 Bad Debt Expense	0
26	409 Income Tax	4,592
27	Total Operating Expense	\$185,121
28		
29	Operating Income	\$28,881
30		
31	Interest Expense	(\$1,195)
32	Total Other Interest Expense/Income	(\$1,195)
33		
34	Net Income	\$28,881
35		
36	Rate Base	\$22,597
37		
38	Rate of Return (Line 29 / Line 36)	127.81%
39		
40	Operating Margin (L29 / L5)	13.50%
41		
42	Annual Debt Service Amount	\$9,568
43		
44	Cash Flow (L22 + L34)	\$41,457
45		
46	DSC [L22 + L26 + L29] ÷ [L42]	4.81



**Engineering Report
for Cedar Grove Water, Inc.**

Docket No. W-20541A-15-0119 (Rates)

**By Frank M. Smaila
Utilities Engineer**

June 30, 2015

CONCLUSIONS

- A. Cedar Grove Water, Inc. ("Cedar Grove" or "Company") is a Class D water utility company consisting of five wells, four storage tanks, five booster stations totaling fourteen booster pumps, two pressure tanks, eleven fire hydrants, 26 individually metered water loadout stations and a distribution system serving 394 customers during the test year ending December 2014.
- B. The Company had a water loss of 11.5 percent during the test year 2014 which is not within the acceptable limit of 10% recommended by Utilities Division Staff ("Utilities Staff" or "Staff").
- C. The Company's current system has adequate well production and storage capacity to serve the present customer base and reasonable growth.
- D. The Company does not anticipate an increase in its customer base or new development in its Certificate of Convenience and Necessity within the near future.
- E. The Arizona Department of Environmental Quality ("ADEQ") has reported that the Company's system, Public Water System #01-049, has no major deficiencies and is currently 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.
- F. The Company is not located in any Arizona Department of Water Resources' ("ADWR") Active Management Area. According to the ADWR, this Company is currently compliant with ADWR's requirements governing water providers and/or community water systems.
- G. According to the Arizona Corporation Commission ("ACC" or "Commission") Utilities Division compliance database, the Company has no delinquent Commission compliance items.
- H. The Company has an approved curtailment tariff, backflow prevention tariff, and three approved Best Management Practices tariffs.

- I. Staff identified several safety and substandard installation items that need attention during its site inspection on May 5, 2015.

RECOMMENDATIONS

1. Staff recommends that the Company file with Docket Control, as a compliance item in this docket and within 90 days of the effective date of a decision in this proceeding, documentation demonstrating that the Company installed water shutoff means on the manually filled storage tank to eliminate water loss due to overflow.
2. Staff recommends that the Company file with Docket Control, as a compliance item in this docket and within 90 days of the effective date of a decision in this proceeding, documentation demonstrating that the Company communicated with Vernon Fire Department, by letter, regarding the necessity of the fire department reporting estimated water usage, communication procedures and verification on amount of water used.
3. Staff recommends an annual water testing expense of \$1,833 be used for purposes of this application.
4. Staff recommends that the Company continue to use Staff's depreciation rates as delineated in Table 7.
5. Staff recommends that the Company continue to utilize the service line and meter installation charges as delineated in Table 8.
6. Staff recommends that the Company file with Docket Control, as a compliance item in this docket and within 90 days of the effective date of a decision in this proceeding, documentation demonstrating that the 26 individually metered loadout yard hydrants and mobile water tank filling procedure is approved by ADEQ.
7. Staff recommends that within 180 days of the effective date of the order in this matter Cedar Grove correct substandard (loose and/or exposed) wiring at the Sunrise Vista well site, Eagle Ridge well site, Well No. 2 well site, Warehouse Building and Rippy Booster Station, as a compliance item with the Commission's Docket Control, documentation demonstrating that the improvements have been completed (See Section I-6, Plant Deficiencies Identified During Site Inspection for further discussion).

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A. INTRODUCTION

On April 9, 2015, Cedar Grove Water, Inc. ("Cedar Grove" or "Company") filed a rate application. The Arizona Corporation Commission ("ACC" or "Commission") in Decision No. 68304, dated November 14, 2005, granted an extension of the Company's Certificate of Convenience and Necessity ("CC&N") and in Decision No. 73084, dated April 4, 2012, granted a revised rate schedule. The Company's CC&N area is comprised of roughly eight square miles and is located approximately twelve miles east of Show Low in Apache County. Cedar Grove is a Class D water utility company. Figure 1 shows the location of the Company within Apache County and Figure 2 shows the location of the Company in relation to other Commission regulated companies in Apache County. This Engineering Report constitutes Staff's engineering evaluation relative to the rate application.

B. DESCRIPTION OF THE WATER SYSTEM

The plant facilities were field inspected on May 5, 2015, by Utilities Division Staff ("Utilities Staff" or "Staff") Briton Baxter and Frank Smaila in the accompaniment of Mr. Bryan Mullins, water system operator.

The operation of the water system consists of five wells, four storage tanks, five booster stations totaling fourteen booster pumps, two pressure tanks, eleven fire hydrants, 26 individually metered water loadout stations and a distribution system serving 394 customers (majority being permanent residential customers) during the test year ending December 2014. This system also provides an emergency inter-tie to Lord Arizona Water Systems, Inc. with a 2-inch master-meter. A system schematic is shown as Figure 3 and a detailed plant facility listing is as follows:

Table 1. Well Site Data

Well Site	Eagle Ridge	Sunrise Vista	Warehouse (Well No. 1)	Well No. 2	Well No. 5
ADWR No. ¹	55-566375	55-087623	55-550075	55-504679	55-808434
Year Constructed	1998	1981	1985	1983	Unknown
Casing Size	6 inch	8 & 6 inch	6 & 5 inch	6 inch	6 & 5 inch
Casing Depth	544 ft.	810 ft.	440 ft.	440 ft.	400 ft.
Pump Type	submersible	submersible	submersible	submersible	submersible
Pump Size	7.5 hp	7.5 hp **	5 hp	5 hp	2 hp ***
Pump Yield	0 to 35 gpm (varies throughout the year) *	12 - 21 gpm	31 gpm	20 gpm	10 gpm
Meter Size	2-inch	1-inch	1-inch	1-inch	1-inch

¹ Arizona Department of Water Resources ("ADWR") Well Identification Number.

Well Active/Inactive	Inactive	Active	Active	Active	Active
Boosters (part of well operation)	-	Two 2 hp boosters w/ 30 gal. tank	One 1 hp booster w/30 gal bladder tank	-	-
Well House	Well located in booster building	12' x 12'	6' x 6'	8'x8'x3'(H)	8'x8'x4'(H)

Note: feet ("ft."), gallon per minute ("gpm"), horsepower ("hp"), gallon ("gal").

*ADWR Pump Installation Completion Report ("PICR") states "Rated Pump Capacity" 45 gpm.

** Well pump motor (5 hp) replaced with 7.5 hp in March of 2014.

*** Well pump motor (5 hp) replaced with 2 hp in May of 2015.

Table 2. Storage Tanks and Booster Station Data

Site	Storage Tanks	Booster System	Booster Building
Transfer Booster Station	-	Two 2 hp booster pumps	4' x 8'
Warehouse Well Site	12,000 gal.	Four 2 hp booster pumps w/ 1000 gal. pressure tank	20' x 30'
Well Site #5	15,000 gal.	Two 2 hp booster pumps w/ 30/50/80 gal. bladder tanks	12' x 12'
Rippy Booster Station	-	2-Hp booster pump w/ 7 gal. bladder tank	4' x 4' x 4'(H)
Eagle Ridge Well/Booster Station	50,000 gal.	Two 7.5 hp booster pumps w/ 2,000 gal. pressure tank	24' x 24'
Cedar Ridge (on hill)	300,000 gal.	-	-

Table 3. Water Mains

Diameter	Material	Approximate Length
2 inch	PVC*	2,800 ft.
6 inch	PVC	92,000 ft.
Total:		94,800 ft.

* Polyvinyl chloride ("PVC")

Table 4. Customer Meters

Size	Quantity
5/8 x 3/4 inch	391*
1 inch	1
2 inch	2

* Includes 26 metered yard hydrants for water haulage

Table 5. Fire Hydrants

Size	Quantity
Standard	11

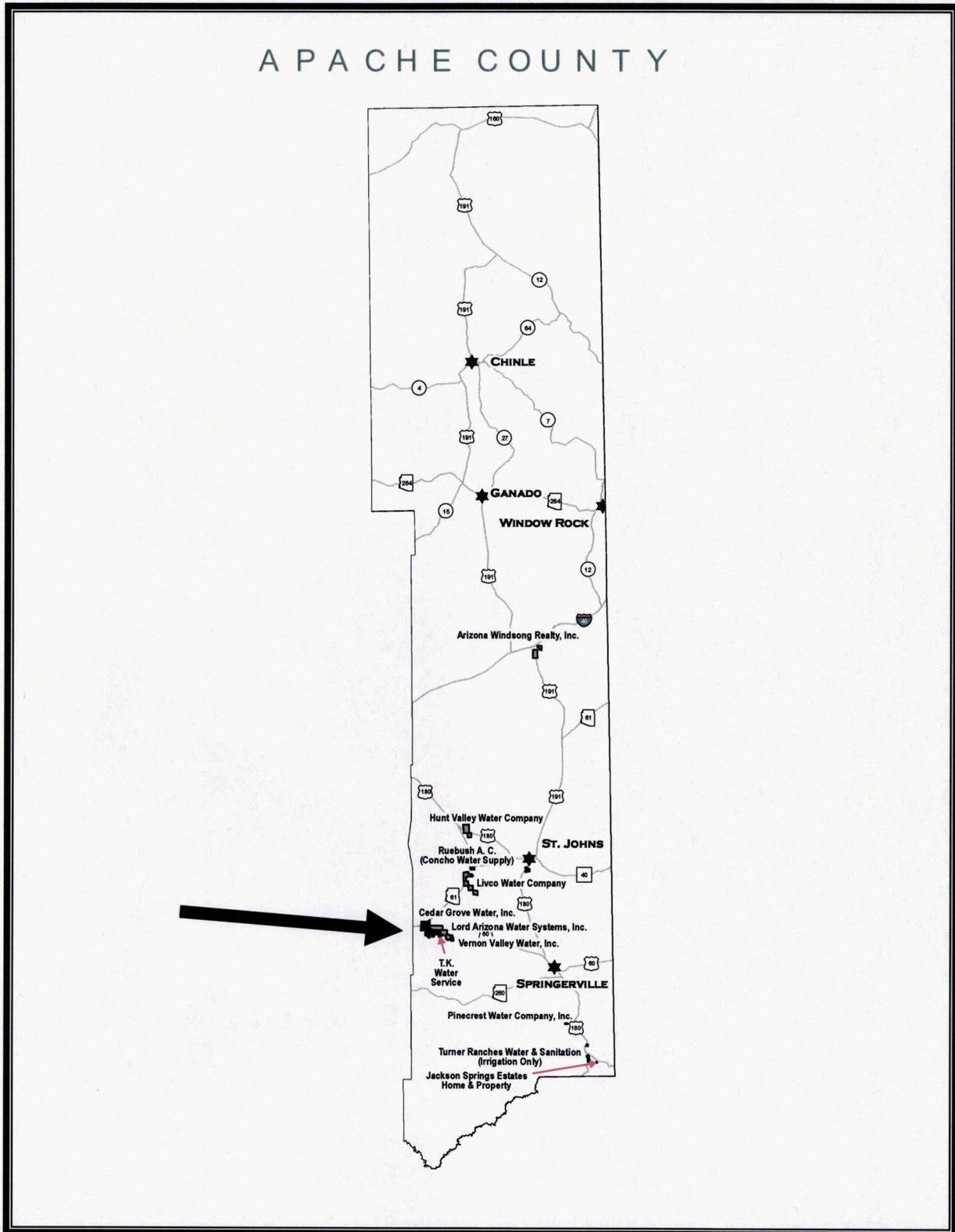
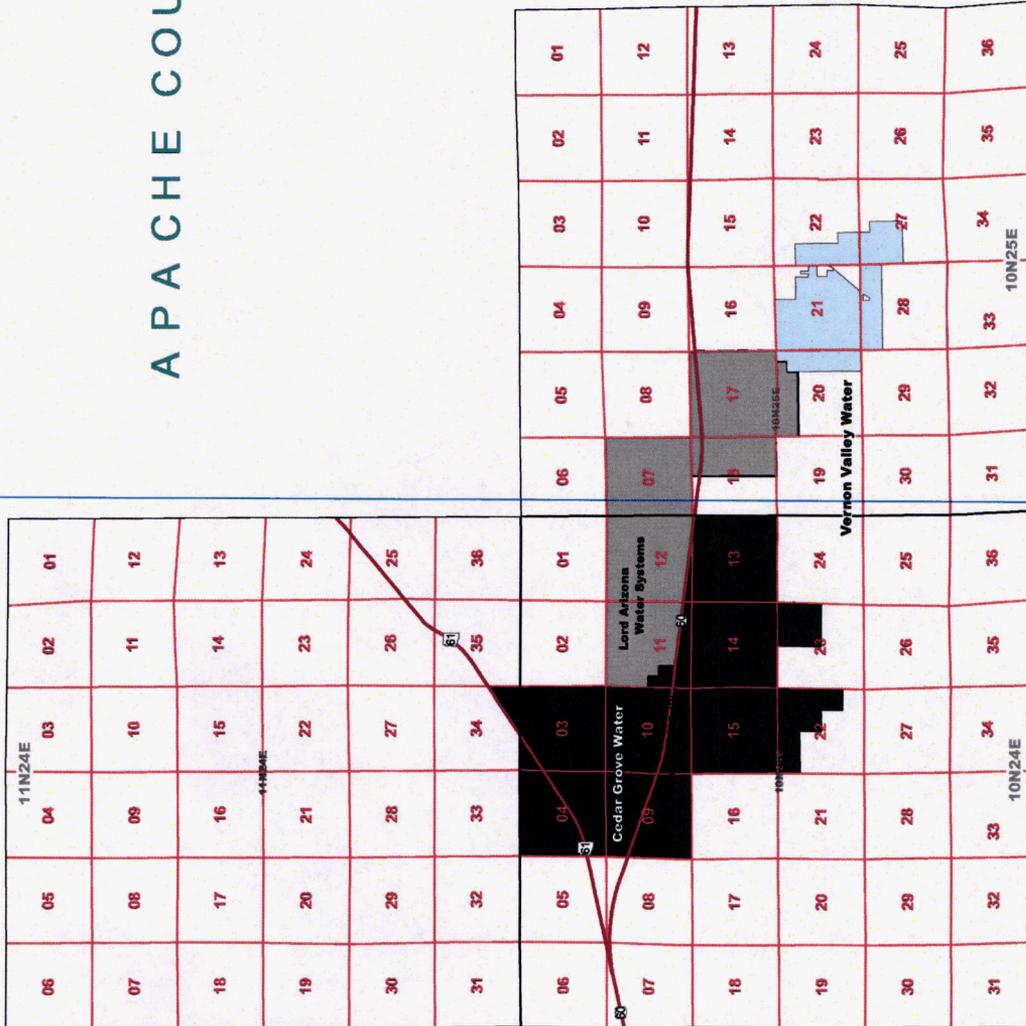


Figure 1. Apache County Map

APACHE COUNTY



Cedar Grove Acreage:
 5,173

Figure 2. Certificated Area

C. WATER USE

Water Sold

Figure 4 presents the water consumption data provided by the Company for the test year ending December 2014. This figure shows the customer consumption experienced a high monthly water use of 180 gallons per day (“gpd”) per connection in June and August and low monthly water use of 73 gpd per connection in March and December for an average annual use of 118 gpd per connection.

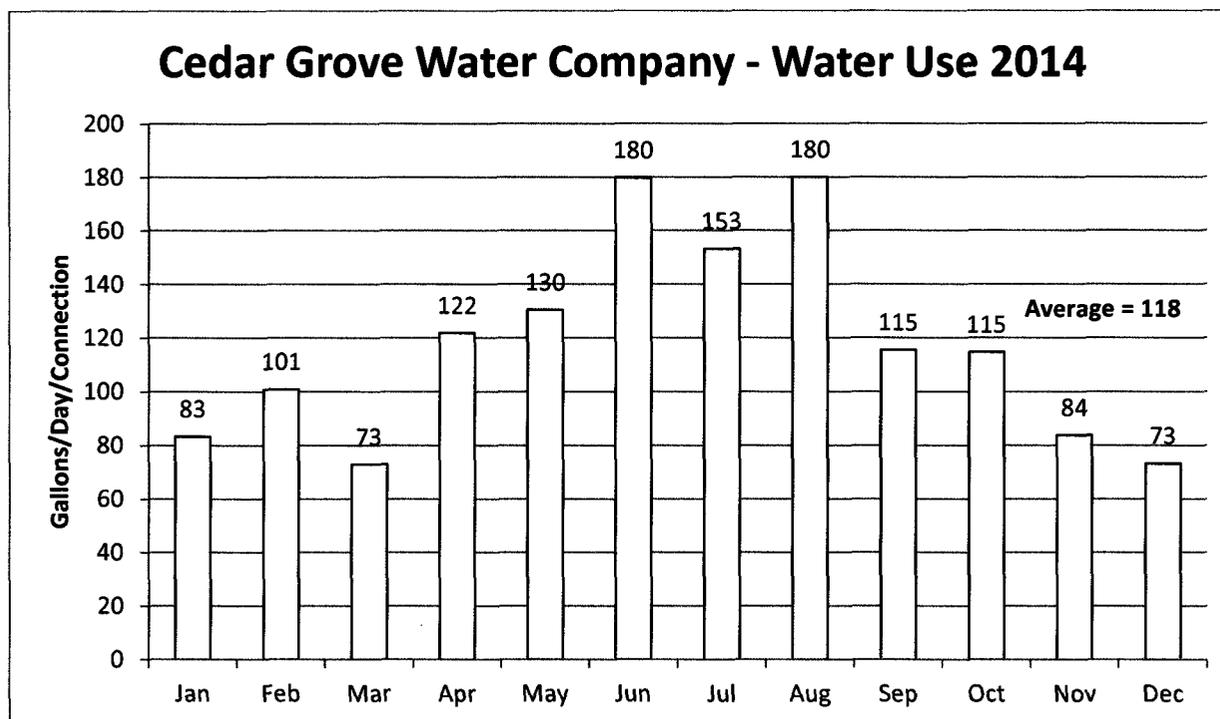


Figure 4. Water Use

Non-Account Water

Non-account water should be 10 percent or less. The annual report for the year ending December 2013 showed a water loss of 10.3 percent and during the 2014 test year, the Company reported 18,327,000 gallons pumped and 16,219,000 gallons sold, resulting in a water loss of 11.5 percent. This water loss is not within the acceptable level of 10 percent recommended by Staff. According to the water system operator the known reasons for water loss are overflow of the manually filled 300,000 gallon water storage tank, Vernon Fire Department (“VFD”) acquiring water from an unmetered source and not reporting water usage to the Company and damaged 3/4-inch PVC waterline service to a meter that currently does not have a customer and had been leaking for an unknown duration. The damaged waterline has been repaired.

Staff recommends that the manually filled storage tank be fitted with a communication device and connected to an automatic shutoff valve or install an Altitude Valve to eliminate water loss due to overflow. Staff recommends that the Company file with Docket Control, as a compliance item in this docket and within 90 days of the effective date of a decision in this proceeding, documentation demonstrating that the Company installed water shutoff means to eliminate water loss due to overflow.

Staff also recommends that water system personnel communicate to VFD, by letter, regarding the necessity of the fire department reporting estimated water usage. The letter should also provide communication procedures on how VFD will contact the Company and verify the amount of water used. Staff recommends that the Company file with Docket Control, as a compliance item in this docket and within 90 days of the effective date of a decision in this proceeding, documentation demonstrating that the Company corresponded with VFD.

System Analysis

The current well capacity of 73 gpm (without the Eagle Ridge Well) and storage tank capacity of 377,000 gallons is adequate to serve the present customer base and reasonable growth.

D. GROWTH

In its application, the Company provides water service to approximately 394 residential customers. The Company does not anticipate an increase in its customer base or new development in its CC&N within the near future.² Historical growth has been minimal in recent years. The Company reported serving only 129 customers in 1999, historic low, and 378 customers in 2014, historic high. During the test year 2010, the Company had 374 customers and projected approximately 435 customers within a 5-year period ending December 2015. Staff anticipates the Company's customer base to remain flat through at least the next 3 years. Figure 5 depicts the customer growth forecast using Moving Average Technical Analysis. The number of service connections was obtained from annual reports submitted to the Commission.

² See Narrative Description of Application for Rate Adjustment "Anticipated growth/decline in customers expected in the next two years," discussion on page 3 of the Application.

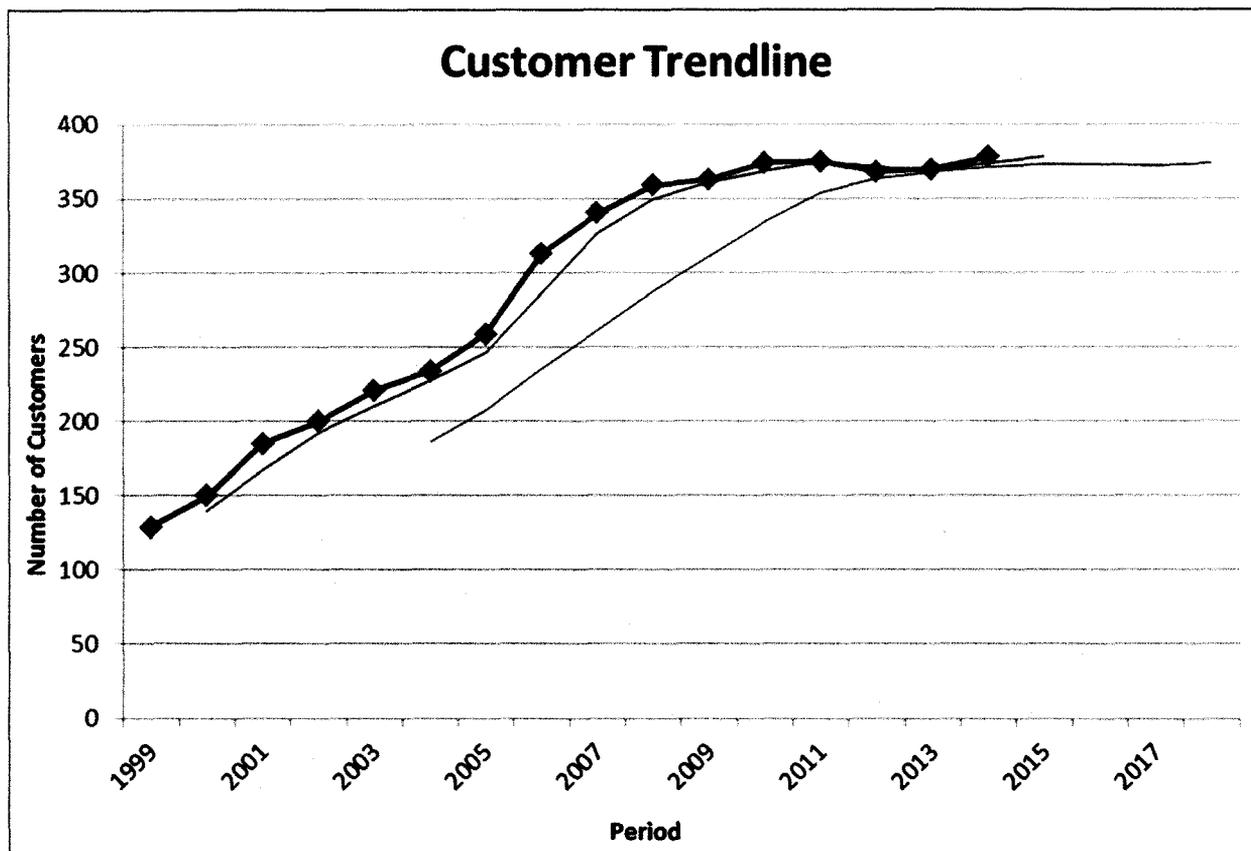


Figure 5. Growth Projection

E. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY ("ADEQ")

Compliance

According to an ADEQ Compliance Status Report, dated May 20, 2015, ADEQ has reported no major deficiencies and has determined that the Company's system, PWS #01-049, is currently 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.

Water Testing Expense

The Company is subject to mandatory participation in the Monitoring Assistance Program ("MAP").³ The Company reported its water testing expense at \$2,153.19 during the test year. Staff has reviewed this expense and has recalculated the annual testing expense as shown in Table 6 below:

³ Participation in the MAP program is mandatory for water systems, which serve less than 10,000 persons (approximately 3,300 service connections).

Table 6. Water Testing Expense

Monitoring	Cost per test	No. of tests per 3 years	Total 3 year cost	Annual cost
Total coliform – monthly *	\$20	72	\$1,440	\$480
MAP – IOCs, Radiochemical, Nitrate, Nitrite, Asbestos, SOCs & VOCs **	\$1,193	3	\$3,579	\$1,193
Lead & Copper – per 3 years (With metals prep)	\$45 \$15	10 2	\$450 \$30	\$150 \$10
Total:				\$1,833

*Note: Operator confirmed two Total Coliform samples procured per month.

**Note: The ADEQ MAP invoice for 2014 Calendar Year was \$1,193.19.

Staff recommends an annual water testing expense of \$1,833 be used for purposes of this application.

F. ARIZONA DEPARTMENT OF WATER RESOURCES (“ADWR”)

Compliance

The Company is not located in an ADWR Active Management Area (“AMA”). According to ADWR, the Company is currently compliant with ADWR’s requirements governing water providers and/or community water systems.

G. ACC COMPLIANCE

On May 1, 2015, the Utilities Division compliance database showed that the Company had no delinquent ACC compliance items.

H. DEPRECIATION RATES

The Company has been using Staff’s typical and customary depreciation rates. These depreciation rates are presented in Table 7 below and it is recommended that the Company continue to use these depreciation rates.

Table 7. 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	2.5
306	Lake, River, Canal Intakes	40	2.5
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2
310	Power Generation Equipment	20	5
311	Pumping Equipment	**5	20
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20
320.3	Point-of-Use Treatment Devices	10	10
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5
331	Transmission & Distribution Mains	50	2
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2
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
341	Transportation Equipment	5	20
342	Stores Equipment	25	4
343	Tools, Shop & Garage Equipment	20	5
344	Laboratory Equipment	10	10
345	Power Operated Equipment	20	5
346	Communication Equipment	10	10
347	Miscellaneous Equipment	10	10

**Note: In prior rate cases, a 5 year service life was established for Acct. 311 – Pumping Equipment. Staff recommends that the 5 year life be retained.

I. OTHER ISSUES

1. *Service Line and Meter Installation Charges*

Service line and meter installation charges are refundable advances. In its filing, the Company did not request changes to its current Commission approved service line and meter installation charges.⁴ Staff recommends that the meter and installation charges listed under “Staff’s Recommended and Current Commission Approved Charges” in Table 8 continue to be utilized.

Table 8. Service line and meter installation charges

	Staff’s Recommended and Current Commission Approved Charges		
Meter Size	Service Line Charge	Meter Charge	Total Charge
5/8" x 3/4"	\$0	\$0	\$0
3/4"	\$230	\$90	\$320
1"	\$230	\$140	\$370
1-1/2"	\$280	\$265	\$545
2"	\$330	\$420	\$750
3"	\$380	\$600	\$980
4"	\$650	\$1,170	\$1,820
6"	\$1,200	\$2,720	\$3,920

2. *Curtailment Tariff*

The Company has an approved curtailment tariff with an effective date of August 25, 2004.

3. *Backflow Prevention Tariff*

The Company has an approved backflow prevention tariff with an effective date of May 30, 2015.

4. *Metered Loadout Stations*

The Company has approximately 26 individually metered loadout yard hydrants for customers who do not have service to their properties and who may reside within or outside the Company’s CC&N. Each individually metered loadout yard hydrant contains a personal lock supplied by the customer. The customer attaches a garden type hose to the yard hydrant and fills a water tank usually located on a trailer pulled by a vehicle or pickup truck.

⁴ The Company’s current charges were approved in ACC Decision No. 73084, dated April 4, 2012.

Observation of the filling process indicated that the filling operation does not meet ADEQ's water loading guidelines. ADEQ engineering bulletin no. 10 ("Bulletin 10")⁵ Chapter 7.K, Water Loading Stations, states "A device shall be installed on the fill line to provide an air break and prevent a submerged discharge line." Staff observed that there were not measures in place to prevent submergence of the discharge line.

The yard hydrants utilized by the Company are frost-proof or freezeless type hydrants with stop and waste valves which, when turned off, drain back and discharge through subsurface outlets. It is Staff's understanding that these types of hydrants may not be ADEQ approved for use in potable water facilities. The hydrants are connected to the water distribution system and possess a drain-back feature that allows the water standing in the column to drain below the frost line and discharge through a weep hole to a gravel bed or tile drain. When the water is turned on, the drain hole is automatically closed by a valve to allow water service. When the hydrant is turned off, however, the valve opens the drain hole and permits the standing water in the hydrant column to escape through the drainpipe. The use of frost-proof hydrants incorporating this drain-back feature allows the possibility of back-siphonage of contaminated water into the water distribution system. This possibility can become a reality should a valve leak develop or a loss of pressure occur in the water distribution system. Because the drain port is open when the hydrant is in the off position, it provides a convenient route through which impure groundwater, insects and dirt can enter the hydrant, thereby contaminating the water supply.

Staff recommends that the Company file with Docket Control, as a compliance item in this docket and within 90 days of the effective date of a decision in this proceeding, documentation demonstrating that the 26 individually metered loadout yard hydrants and mobile water tank filling procedure is approved by ADEQ.

5. *Best Management Practice Tariffs*⁶

The Company currently has three approved Best Management Practice ("BMP") Tariffs. The approved BMPs include Customer High Water Use Inquiry Resolution Tariff (BMP 3.6), Comprehensive Water System Audit Program Tariff (BMP 4.3) and Water System Tampering Tariff (BMP 5.2). The Company BMPs became effective on August 21, 2012.

6. *Plant Deficiencies Identified During Site Inspection*

Staff identified several items that needed attention during its site inspection on May 5, 2015. Staff recommends that within 180 days of the effective date of the order in this matter Cedar Grove complete the needed improvements listed below and file, as a compliance item with the Commission's Docket Control, documentation demonstrating that the improvements have been completed.

⁵ Arizona Department of Environmental Quality Engineering Bulletin No. 10, "Guidelines for the Construction of Water Systems", May 1978.

⁶ ACC Decision No. 73345, "Compliance Filing per Decision No. 73084 for ADWR Best Management Practices"

Table 9 lists items identified and recommended course of action.

Location	Issue Type	Description of Issue	Possible Consequence	Recommend Company	Regulation - Guideline
Sunrise Vista Well site	Substandard Installation/Safety	Exposed electrical wiring to both booster pumps	Bodily Harm	Rewire booster pumps utilizing conduits installed in professional manner	OSHA 29 CFR ⁷ 1910.305 & 1910.307
Eagle Ridge Well Site	Substandard Installation/Safety	Exposed electrical wiring to baseboard heater	Bodily Harm	Rewire baseboard heater utilizing conduit installed in professional manner	OSHA 29 CFR 1910.305 & 1910.307
Well No. 2 Well Site	Substandard Installation/Safety	Exposed electrical wiring to well pump.	Bodily Harm & Tripping	Rewire well pump utilizing conduit installed in professional manner	OSHA 29 CFR 1910.305, 1910.307 & 1910.22
Warehouse Building	Substandard Installation/Safety	Electrical wiring to booster pumps not installed within conduit	Bodily Harm	Rewire booster pumps utilizing conduit installed in professional manner	OSHA 29 CFR 1910.305 & 1910.307
Rippy Booster Station	Substandard Installation/Safety	Exposed electrical wiring to both booster pump	Bodily Harm	Rewire booster pumps utilizing conduits installed in professional manner	OSHA 29 CFR 1910.305 & 1910.307

⁷ United States Department of Labor, Occupational Health and Safety Administration ("OSHA"), Title 29 – Labor, Code of Federal Regulations ("CFR"), Part 1910.