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MEMORANDUM

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AZ CORP COMMISSION
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TO: Docket Control

FROM: Steven M. Olea
Acting Director
Utilities Division

DATE October 5, 2001

RE: STAFF REPORT FOR BRADSHAW WATER COMPANY'S APPLICATION FOR
A PERMANENT RATE INCREASE (DOCKET NO. W-02476A-01-0502)

Attached is the Staff Report for Bradshaw Water Company's application for a permanent rate increase. Staff recommends approval of the rates and charges presented in Schedule 4 of this report. Staff further recommends that a hearing not be held in this matter.

SMO:ENZ:rdp

Originator: Elena N. Zestrijan

Attachment: Original and eleven copies

Arizona Corporation Commission

DOCKETED

OCT 05 2001

DOCKETED BY	<i>mae</i>
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Service List for: BRADSHAW WATER COMPANY
Docket No. W- 02476A-01-0502

LYNX CREEK RANCH, INC.
112 GROVE AVENUE
PRESCOTT, AZ 86301

DON LOVELL
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**STAFF REPORT
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION**

**BRADSHAW WATER COMPANY, INC.
DOCKET NO. W-02476A-01-0502**

**APPLICATION
FOR A
PERMANENT RATE INCREASE**

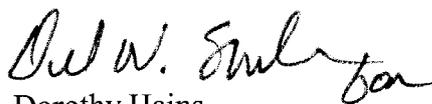
October 2001

STAFF ACKNOWLEDGMENT

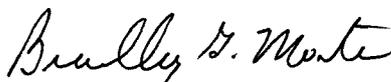
The Staff Report for Bradshaw Water Company, Inc. Docket No. W-02476A-01-0502 was the responsibility of the Staff members listed below. Elena Zestrijan was responsible for the review and analysis of the Company's application for a permanent rate increase, Staff's recommended revenue requirement, and rate base and rate design. Dorothy Hains was responsible for the engineering and technical analysis. Bradley Morton was responsible for reviewing the Arizona Corporation Commission's records on the Company, determining compliance with Commission policies/rules and reviewing customer complaints filed with the Commission.



Elena Zestrijan
Auditor III



Dorothy Hains
Utilities Engineer



Bradley Morton
Consumer Service Specialist

TABLE OF CONTENTS

	<u>PAGE</u>
Factsheet	1
Summary of Filing	3
Background	3
Consumer Services.....	3
Engineering Analysis	4
Compliance	4
Rate Base	5
Plant in Service	5
Operating Revenue.....	6
Operating Expenses	6
Rate of Return.....	7
Rate Design.....	7
Staff Recommendations.....	7

SCHEDULES

	<u>No.</u>
Summary of Filing	1
Rate Base	2
Statement of Operating Income	3
Rate Design.....	4
Typical Bill Analysis.....	5

ATTACHMENT

Engineering Report	
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FACT SHEET

Company:

Current Rates: Decision No. 60708, dated February 27, 1998
Type of Ownership: "C" Corporation

Location: Near Prescott within Yavapai County, Arizona. Located in an Active Management Area ("AMA")

Rates:

Permanent rate increase application filed: June 22, 2001
Current Test Year Ended: December 31, 2000
Prior Test Year Ended: December 31, 1996

	<u>Current Rates</u>	<u>Company Proposed Rates</u>	<u>Staff Proposed Rates</u>
Monthly Minimum Charge Based on 5/8 X 3/4 – inch meter	\$33.20	\$34.00	\$ 33.00
Gallons in Minimum	0	0	0
Commodity Charge			
Excess of minimum, per 1,000 gallons:			
From 1 to 4,000 gallons	\$5.25	\$5.25	\$4.50
From 4,001 to 6,000 gallons	\$5.75	\$6.00	\$5.75
In excess of 6,000 gallons	\$6.25	\$6.75	\$6.75
Typical residential bill (Based on median usage of 5,317 gallons)	\$65.70	\$67.00	\$58.57

Customers:

Number of customers in prior Test Year (12/31/96) 63

Average Number of customers in the current Test Year (12/31/00): 87

Current Test Year customers by meter size:

5/8 X 3/4 – inch	86
3/4 – inch	0
1 – inch	1
1 1/2 – inch	0
2 – inch	0
4 – inch	0
6 – inch	0
8 – inch	0

Seasonal customers: N/A

Customer notification mailed: June 25, 2001

Number of customer concerns since rate application filed: 1 petition signed by 95 individuals.

Percentage of complaints to customer base: 100%

Summary of Filing

Based on Test Year results, as adjusted by Staff, Bradshaw Water Company, Inc. ("Bradshaw" or "Company") realized an operating loss of \$14,707 on an Original Cost Rate Base ("OCRB") of \$480,519 for no rate of return (Schedule 1).

The Company's proposed rates would produce a revenue level of \$79,865 and an operating loss of \$31,256, for no rate of return on an OCRB of \$305,991. The Company's proposed rates would increase the typical residential bill with a median usage of 5,317 gallons, from \$65.70 to \$67.00 for an increase of \$1.30, or 2.00 percent (Schedule 5).

Staff's proposed rates would produce positive cash flow of \$20,000 based on revenues of \$76,237 and an operating income of \$1,983 on an OCRB of \$480,519, resulting in a 0.41 percent rate of return. Staff's recommended rates would decrease the typical residential bill with a median usage of 5,317 gallons, from \$65.70 to \$58.57 for a decrease of \$7.13 or 10.80 percent.

The Company's system consists of four wells, three storage tanks, four pressure tanks and a distribution system. During the Test Year ended December 31, 2000, Bradshaw provided water service to an average of 87 metered customers, 86 of which are served by 5/8 x 3/4 -inch meter. One customer is served by a 1-inch meter.

The Company's system produced less than 30% of water sold. More than 70% of the water sold is purchased from Prescott Valley Water District.

Background

Bradshaw Water Company, Inc. is organized as an Arizona C corporation engaged in the business of providing public utility water service to Arizona customers. The Company's service area is located near the Town of Prescott Valley, in Yavapai County. Bradshaw's last rate increase was granted in Decision Number 60708, dated February 27, 1998. This decision ordered the Company to file a permanent rate increase application within 24 months from the date rates became effective.

Consumer Services

A review of Consumer Services records indicates that there were no formal complaints filed since the last rate increase.

Consumer Services received a sample copy of Bradshaw's billing format. This bill is in full compliance with all minimum information required by Commission Rule R14-2-409(B)(2).

Consumer Services received a copy of the customer notification regarding this rate application. Consumer Services received a petition signed by 95 individuals objecting to the proposed rate increase. The petition was docketed on July 18, 2001.

Staff did not conduct a public comment hearing after informing the originator that the petition was docketed and is considered as part of the record in this proceeding. The originator agreed that since the petition was docketed, a public comment hearing would not be necessary.

Engineering Analysis

The Company's plant facilities were inspected on July 31, 2001. For a description of the water system, please refer to attached Engineering Report.

Water testing expenses are based upon participation in the Arizona Department of Environmental Quality ("ADEQ") Monitoring Assistance Program ("MAP"). Annual testing expenses were adjusted to the level described in Table I of the attached Engineering Report.

Staff recommends that Bradshaw implement depreciation rates consistent with those found in Table 4 of the attachment.

The plant description section of the instant application and the Utilities Annual Report did not accurately describe the plant in service. Accordingly, Staff recommends that Bradshaw accurately report its plant in service in the 2001 Utilities Division Annual Report.

Compliance

Bradshaw is current on its property tax payments and in its remittance of Sales and Use Tax.

ADEQ stated that it could not determine if this system is currently delivering water that meets the water quality standards required by the Safe Drinking Water Act. ADEQ further stated that the Company failed to provide the annual lead and copper tests.

Bradshaw is in the Prescott Active Management Area. The Company pumps less than 250 acre-feet per year and is considered a "small provider." Consequently, Bradshaw is not subject to conservation rules or gallons per capita per day ("gpcd") limits. Bradshaw is only required to monitor and report water usage and is in compliance with the reporting requirements.

The Company failed to comply with Decision No. 60708 dated February 27, 1998, which ordered the Company to file a rate increase application on or before March 1, 2000. The instant application was filed 15 months late.

The Company's books and records reflect that the National Association of Regulatory Utility Commissioners ("NARUC") system of accounts adopted by this Commission has not been implemented. Arizona Corporation Commission Rule R14-2-411(D)(2) states "Each utility shall maintain its books and records in conformity with the NARUC Uniform Systems of Accounts for Class A, B, C and D Water Utilities."

Bradshaw is a subsidiary and managed by the parent company, Professional Brokers. During its audit trip, Staff was informed that there is no written agreement for the management fee between Bradshaw Water and Professional Brokers.

Rate Base

Staff's adjustments increased Company's proposed Rate Base by \$174,528 to \$480,519 (see Schedule 2, page 1).

Adjustment A decreased Plant in Service by \$18,291. Please refer to the Plant in Service section of this Report for explanation of adjustments.

Adjustment B decreased Accumulated Depreciation by \$194,605. Staff's recommended balance of \$260,410 was derived by adding depreciation expense for the intervening years between rate cases (1997 to 2000) of \$151,298 to the prior Commission approved balance of \$109,112 (see schedule 2, Page 3).

Adjustment C reduced working capital allowance by \$1,786 consistent with Staff's adjustments to operating expenses.

Plant in Service

Plant in Service was reduced by \$18,291 as shown in Schedule 2 page 2.

Adjustment A increased Structures and Improvements by \$18,237 to reflect the ending balance of this plant category authorized in the last rate case.

Adjustment B decreased Wells and Springs by \$12,650 to reflect the ending balance of this plant account authorized in the last rate case.

Adjustment C reduced Pumping Equipment by \$23,665. This adjustment consisted of a reduction of \$30,866 to reflect the correct ending balance in the last rate case and an increase of \$7,201 for the installation of radio telemetry system controls.

Adjustment D increased Water Treatment Equipment by \$6,825, consistent with the approved ending balance for this plant account in the last rate.

Adjustment E decreased Distribution Reservoirs by \$75,851. This adjustment consisted of a decrease of \$120,851, consistent with the Commission approved ending balance in the last rate case and an increase of \$45,000 to record on a pro-forma basis the installation of a 48,000 gallon storage tank.

Adjustments F, G, H and I were necessary to correct ending balance of those plant categories authorized in Decision Number 60708, dated February 27, 1998.

Operating Revenue

The bill counts submitted with the instant application matched the metered water revenues. Therefore, no adjustment was necessary (see Schedule 3, page 1).

Operating Expenses

Staff made six adjustments to Operating Expenses resulting in a net decrease of \$18,493.

Staff's adjustment A reclassified \$9,000 to Outside Services from Salaries and Wages to reflect the appropriate expense category regarding management fees. The owner of the Company received \$9,000 from Professional Brokers (the Management Company with common ownership with Bradshaw) as compensation to manage the operations. The Company recorded the \$9,000 as Salaries and Wages. However, the books and records indicated that no associated payroll taxes were charged or paid. In Staff's opinion, the compensation received by the owner should be reclassified to Outside Services.

Adjustment B decreased Repairs and Maintenance by \$7,507. This adjustment consisted of a reclassification of \$7,201 to Plant in Service for the purchase and installation of a telemetry system. Staff also removed duplicate charges of \$306 regarding the telemetry system.

Adjustment C increased Outside Services by \$1,798. This adjustment consisted of a reclassification of \$9,000 from Salaries and Wages. Outside Services was further reduced by \$7,202 to reflect Staff's recommended management fee of \$14.50 per customer per month (87 customers x \$14.50 x 12 months = \$15,138). Staff believes that the current management fee of \$21.39 (\$13,340 = \$9,000 = \$22,340 divided by 87 customers x 12 months) is excessive and should be reduced to \$14.50 per customer per month based on previous Commission approved other management companies and found that the recommended rate is within industry standards.

Staff's adjustment D increased Water Testing by \$420 to reflect Staff engineer's recommended expense level of \$1,683.

Staff's Adjustment E decreased Test Year Depreciation Expense by \$4,254 consistent with the Commission authorized 5.0 percent depreciation rate. Staff's recommended depreciation rates on a going forward basis result in an expense level of \$23,238 and are based on the component rates found in Table 4 of the Engineering Report.

Adjustment F increased Income Tax to reflect the minimum amount of state income tax expense.

Rate of Return

The Company's proposed increase in revenues of \$1,944 resulted in no rate of return (negative 10.21 percent). Staff's recommended rates produced a 0.41 percent rate of return. Staff's recommended revenue level would provide a positive cash flow of approximately \$20,000 after operations and maintenance, debt service coverage of the Commission approved Water Infrastructure Financing Authority of Arizona ("WIFA") long-term debt, and repayment of line extension agreements.

The resulting financial indicators, such as Times Interest Earned Ratio (TIER) and Debt Service Coverage (DSC) of 9.01 and 5.23, respectively, are considered very favorable. To illustrate, Staff's recommended revenue level, as mentioned above, results in a 5.23 DSC ratio, which is above the WIFA required DSC ratio of 1.20.

Rate Design

The Company's proposed rate design and Staff's recommended rate design do not include any gallons in the minimum monthly charge and are composed of a three-tiered inverted block rate structure. This type of rate structure results in a higher cost for water as usage increases which is consistent with water conservation efforts.

Staff Recommendations

Staff recommends approval of the rates and charges as shown in Schedule 4.

Staff further recommends approval of its rates and charges without a hearing.

Staff recommends that Bradshaw implement depreciation rates consistent with those found in Table 4 of the attachment.

Staff further recommends that Bradshaw accurately describe its plant in service in the 2001 Utilities Division Annual Report and each Annual Report thereafter.

Staff further recommends that the Company, comply with future Commission orders regarding timely filings as required.

Staff further recommends that the Company implement and maintain its books and records in conformity with the NARUC Uniform System of Accounts in compliance with Rule R14-2-411(D)(2) within 60 days of the order in this case. The Company should be required to file an affidavit, within 30 days of complying with the rule, certifying that the Company is in compliance with the rule. Such conformity and affidavit should occur no later than 90 days from the date of the order in this case.

Staff further recommends that the Company maintain a separate bank account for utility purposes only, and maintain utility records separate from personal, parent company and other non-utility purposes.

Staff further recommends that its proposed rate decrease be implemented at this time and the Company be required to file with the Director of the Utilities Division within 90 days, written documentation from ADEQ stating that the water system is in compliance with the water quality standards of the Safe Drinking Water Act.

Staff further recommends that in addition to the collection of its regular rates and charges, Bradshaw shall collect from its customers their proportionate share of any Privilege, Sales or Use Tax as provided for in A.A.C. R14-2-409(D).

SUMMARY OF FILING

	-- Present Rates --		-- Proposed Rates --	
	Company as Filed	Staff as Adjusted	Company as Filed	Staff as Adjusted
Revenues:				
Metered Water Revenue	\$73,664	\$73,664	\$75,608	\$71,980
Unmetered Water Revenue	0	0	0	0
Other Water Revenues	4,257	4,257	4,257	4,257
Total Operating Revenue	\$77,921	\$77,921	\$79,865	\$76,237
Operating Expenses:				
Operation and Maintenance	\$60,542	\$46,253	\$60,542	\$46,253
Depreciation	45,866	41,612	45,866	23,238
Property & Other Taxes	4,713	4,713	4,713	4,713
Income Tax	0	50	0	50
Total Operating Expense	\$111,121	\$92,628	\$111,121	\$74,254
Operating Income/(Loss)	(\$33,200)	(\$14,707)	(\$31,256)	\$1,983
Rate Base O.C.L.D.	\$305,991	\$480,519	\$305,991	\$480,519
Rate of Return - O.C.L.D.	-10.85%	-3.06%	-10.21%	0.41%
Times Interest Earned Ratio (After-Tax)	N/A	-5.23	N/A	9.01
Debt Service Coverage Ratio (After-Tax)	N/A	5.59	N/A	5.23
Operating Margin	-42.61%	-18.87%	-39.14%	2.60%

- NOTES:
1. The times interest earned ratio (TIER) represents the ability of the Company to pay interest expenses before taxes.
 2. Operating Margin represents the proportion of funds available to pay interest and other below the line or non-ratemaking expenses.

RATE BASE

	----- Original Cost -----			Staff
	Company	Adjustment		
Plant in Service	\$876,623	(\$18,291)	A	\$858,332
Less:				
Accum. Depreciation	455,015	(194,605)	B	260,410
Net Plant	\$421,608	\$176,314		\$597,922
Less:				
Plant Advances	\$121,319	\$0		\$121,319
Accumulated Deferred Income Taxes	0	0		0
Total Advances	\$121,319	\$0		\$121,319
Contributions Gross	\$0	\$0		\$0
Less:				
Amortization of CIAC	0	0		0
Net CIAC	\$0	\$0		\$0
Total Deductions	\$121,319	\$0		\$121,319
Plus:				
1/24 Power	\$933	\$0	C	\$933
1/8 Operation & Maint.	4,769	(1,786)	C	2,983
Inventory	0	0		0
Prepayments	0	0		0
Total Additions	\$5,702	(\$1,786)		\$3,916
Rate Base	\$305,991	\$174,528		\$480,519

Explanation of Adjustment:

- A - See Schedule 2 page 2 of 3
- B - See Schedule 2 page 3 of 3
- C - To reflect Staff's adjustments to operating expenses.

PLANT ADJUSTMENT

	Company Exhibit	Adjustment		Staff Adjusted
301 Organization	\$0	\$0		\$0
302 Franchises	0	0		0
303 Land & Land Rights	0	0		0
304 Structures & Improvements	0	18,237	A	18,237
307 Wells & Springs	58,234	(12,650)	B	45,584
311 Pumping Equipment	68,042	(23,665)	C	44,377
320 Water Treatment Equipment	0	6,825	D	6,825
330 Distribution Reservoirs & Standpipes	162,710	(75,851)	E	86,859
331 Transmission & Distribution Mains	554,690	57,653	F	612,343
333 Services	23,582	(1,847)	G	21,735
334 Meters & Meter Installations	425	3,040	H	3,465
335 Hydrants	8,940	9,967	I	18,907
336 Backflow Prevention Devices	0	0		0
339 Other Plant and Misc. Equipment	0	0		0
340 Office Furniture & Equipment	0	0		0
341 Transportation 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	0	0		0
105 C.W.I.P.	0	0		0
TOTALS	\$876,623	(\$18,291)		\$858,332

Explanation of Adjustment:

- A To adjust to authorized ending balance in last rate case.
- B To adjust to authorized ending balance in last rate case.
- C To adjust to authorized ending balance in last rate case and the addition/installation of radio telemetry system controls.
- D To adjust to authorized ending balance in last rate case.
- E To adjust to authorized ending balance in last rate case and to record on a proforma basis addition of a 48,000 gallons storage tank.
- F To adjust to authorized ending balance in last rate case.
- G To adjust to authorized ending balance in last rate case.
- H To adjust to authorized ending balance in last rate case.
- I To adjust to authorized ending balance in last rate case.

ACCUMULATED DEPRECIATION ADJUSTMENT

	<u>Amount</u>
Accumulated Depreciation - Per Company	\$455,015
Accumulated Depreciation - Per Staff	260,410 A
Total Adjustment	<u>(\$194,605)</u>

Explanation of Adjustment:

A -	Beginning Balance as of December 31, 1996, per Staff Engineers trended O.C.	\$ 109,112
	Plus:	
	Depreciation Expense 1997	34,275
	Depreciation Expense 1998	36,715
	Depreciation Expense 1999	38,696
	Depreciation Expense 2000	41,612
		<u>151,298</u>
	Staff Balance as of December 31, 2000	<u>\$ 260,410</u>

STATEMENT OF OPERATING INCOME

	Company Exhibit	Staff Adjustments		Staff Adjusted
Revenues:				
461 Metered Water Revenue	\$73,664	\$0		\$73,664
460 Unmetered Water Revenue	0	0		0
474 Other Water Revenues	4,257	0		4,257
Total Operating Revenue	\$77,921	\$0		\$77,921
Operating Expenses:				
601 Salaries and Wages	\$9,000	(\$9,000) A		\$0
610 Purchased Water	18,809	0		18,809
615 Purchased Power	3,580	0		3,580
618 Chemicals	0	0		0
620 Repairs and Maintenance	12,040	(7,507) B		4,533
621 Office Supplies & Expense	0	0		0
630 Outside Services	13,340	1,798 C		15,138
635 Water Testing	1,263	420 D		1,683
641 Rents	0	0		0
650 Transportation Expenses	0	0		0
657 Insurance - General Liability	1,953	0		1,953
659 Insurance - Health and Life	0	0		0
666 Regulatory Commission Expense - Rate Case	129	0		129
675 Miscellaneous Expense	428	0		428
403 Depreciation Expense	45,866	(4,254) E		41,612
408 Taxes Other Than Income	0	0		0
408.11 Property Taxes	4,713	0		4,713
409 Income Tax	0	50 F		50
Total Operating Expenses	\$111,121	(\$18,493)		\$92,628
OPERATING INCOME/(LOSS)	(\$33,200)	\$18,493		(\$14,707)
Other Income/(Expense):				
419 Interest and Dividend Income	\$0	\$0		\$0
421 Non-Utility Income	950	(950) G		0
427 Interest Expense	0	2,800 H		2,800
4XX Reserve/Replacement Fund Deposit	0	2,023 I		2,023
426 Miscellaneous Non-Utility Expense	0	0		0
Total Other Income/(Expense)	\$950	(\$1,727)		(\$4,823)
NET INCOME/(LOSS)	(\$32,250)	\$16,766		(\$19,530)

STAFF ADJUSTMENTS

A	-	SALARIES AND WAGES - Per Company	\$9,000	
		Per Staff	0	(\$9,000)

To reclassify to Outside Services.

B	-	REPAIRS AND MAINTENANCE - Per Company	\$12,040	
		Per Staff	4,533	(\$7,507)

To reclassify to Plant in Service Radio telemetry system controls. (7,201)

To disallow partial payment of radio telemetry charged twice. (306)

(7,507)

C	-	OUTSIDE SERVICES - Per Company	13,340	
		Per Staff	15,138	\$1,798

To reclassify \$9,000 from Salaries and Wages and adjust management fee to \$14.50 per customer per month.

D	-	WATER TESTING - Per Company	\$1,263	
		Per Staff	1,683	\$420

To adjust to Engineering Staff recommended expense level of \$1,683

E	-	DEPRECIATION - Per Company	\$45,866	
		Per Staff	41,612	(\$4,254)

Explanation of Adjustment:

Pro Forma Annual Depreciation Expense:

Plant in Service	\$858,332	
Less: Non Depreciable Plant	0	
Fully Depreciated Plant	0	
Depreciable Plant	\$858,332	
Times: Staff Proposed Depreciation Rate	5.0000%	
Credit to Accumulated Depreciation	\$41,612	
Less: Amort. of CIAC* @	0	
Pro Forma Annual Depreciation Expense	\$41,612	

To adjust Depreciation Expense to be consistent with Staff engineer's recommended depreciation rates.

STAFF ADJUSTMENTS

F -	INCOME TAX - Per Company	\$0	
	Per Staff	50	\$50
		<hr/>	<hr/>

Consistent with Staff's adjustments to Operating Income and Expenses.

H	INTEREST EXPENSE - Per Company	\$0	
	Per Staff	2,800	\$2,800
		<hr/>	<hr/>

To record interest for existing WIFA loan approved Feruary, 2000.

I	RESERVE/PRINCIPAL PAYMENT OF WIFA LOAN - Per Company	\$0	
	Per Staff	2,023	\$2,023
		<hr/>	<hr/>

To record reserve and principal payment of existing WIFA loan.

RATE DESIGN

Monthly Usage Charge	Present	-Proposed Rates-	
	Rates	Company	Staff
5/8" x 3/4" Meter	\$33.20	\$34.00	\$33.00
3/4" Meter	33.20	34.00	33.00
1" Meter	56.50	58.00	82.50
1½" Meter	77.00	80.00	165.00
2" Meter	123.00	126.00	264.00
3" Meter	0.00	0.00	495.00
4" Meter	0.00	0.00	825.00
6" Meter	0.00	0.00	1,650.00
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
From 1 to 4,000 Gallons	5.25	5.25	4.50
From 4,001 to 6,000 Gallons	5.75	6.00	5.75
In excess of 6,000 Gallons	6.25	6.75	6.75
<u>Service Line and Meter Installation Charges</u>			
5/8" x 3/4" Meter	\$330.00	\$350.00	\$350.00
3/4" Meter	375.00	400.00	400.00
1" Meter	440.00	500.00	500.00
1½" Meter	660.00	750.00	750.00
2" Meter	1,155.00	1,500.00	1,500.00
3" Meter	0.00	0.00	1,975.00
4" Meter	0.00	0.00	3,040.00
6" Meter	0.00	0.00	7,290.00
<u>Service Charges</u>			
Establishment	\$50.00	\$60.00	\$60.00
Establishment (After Hours)	60.00	120.00	90.00
Reconnection (Delinquent)	60.00	75.00	60.00
Meter Test (If Correct)	30.00	50.00	50.00
Deposit	*	*	*
Deposit Interest	*	*	*
Re-Establishment (Within 12 Months)	50.00	60.00	**
NSF Check	15.00	25.00	25.00
Deferred Payment	1.50%	1.50%	1.50%
Meter Re-Read (If Correct)	10.00	20.00	20.00
Late Fee (Per Month)	1.50%	1.50%	1.50%
<u>Monthly Service Charge for Fire Sprinkler</u>			
4" or Smaller	0.00	0.00	****
6"	0.00	0.00	****
8"	0.00	0.00	****
10"	0.00	0.00	****
Larger than 10"	0.00	0.00	****

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

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

*** 1.00% of Monthly Minimum for a Comparable Sized Meter Connection,
but no less than \$5.00 per month.

**** 1.5 Percent of monthly unpaid balance.

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

Average Number of Customers: 86

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	6,498	\$68.81	\$70.36	\$1.55	2.3%
Median Usage	5,317	\$65.70	\$67.00	\$1.30	2.0%
<u>Staff Proposed</u>					
Average Usage	6,498	\$68.81	\$65.86	(\$2.95)	-4.3%
Median Usage	5,317	\$65.70	\$58.57	(\$7.13)	-10.8%

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

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$33.20	\$34.00	2.4%	\$33.00	-0.6%
1,000	38.45	39.25	2.1%	37.50	-2.5%
2,000	43.70	44.50	1.8%	42.00	-3.9%
3,000	48.95	49.75	1.6%	46.50	-5.0%
4,000	54.20	55.00	1.5%	51.00	-5.9%
5,000	59.95	61.00	1.8%	56.75	-5.3%
6,000	65.70	67.00	2.0%	62.50	-4.9%
7,000	71.95	73.75	2.5%	69.25	-3.8%
8,000	78.20	80.50	2.9%	76.00	-2.8%
9,000	84.45	87.25	3.3%	82.75	-2.0%
10,000	90.70	94.00	3.6%	89.50	-1.3%
15,000	121.95	127.75	4.8%	123.25	1.1%
20,000	153.20	161.50	5.4%	157.00	2.5%
25,000	184.45	195.25	5.9%	190.75	3.4%
50,000	340.70	364.00	6.8%	359.50	5.5%
75,000	496.95	532.75	7.2%	528.25	6.3%
100,000	653.20	701.50	7.4%	697.00	6.7%
125,000	809.45	870.25	7.5%	865.75	7.0%
150,000	965.70	1,039.00	7.6%	1,034.50	7.1%
175,000	1,121.95	1,207.75	7.6%	1,203.25	7.2%
200,000	1,278.20	1,376.50	7.7%	1,372.00	7.3%

TYPICAL BILL ANALYSIS
General Service 1 - Inch Meter

Average Number of Customers: 1

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	11,583	\$123.90	\$128.69	\$4.79	3.9%
Median Usage	3,250	\$89.38	\$91.56	\$2.18	2.4%
<u>Staff Proposed</u>					
Average Usage	11,583	\$123.90	\$149.69	\$25.79	20.8%
Median Usage	3,250	\$89.38	\$97.13	\$7.75	8.7%

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

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$56.50	\$58.00	2.7%	\$82.50	46.0%
1,000	61.75	63.25	2.4%	87.00	40.9%
2,000	67.00	68.50	2.2%	91.50	36.6%
3,000	72.25	73.75	2.1%	96.00	32.9%
4,000	77.50	79.00	1.9%	100.50	29.7%
5,000	83.25	85.00	2.1%	106.25	27.6%
6,000	89.00	91.00	2.2%	112.00	25.8%
7,000	95.25	97.75	2.6%	118.75	24.7%
8,000	101.50	104.50	3.0%	125.50	23.6%
9,000	107.75	111.25	3.2%	132.25	22.7%
10,000	114.00	118.00	3.5%	139.00	21.9%
15,000	145.25	151.75	4.5%	172.75	18.9%
20,000	176.50	185.50	5.1%	206.50	17.0%
25,000	207.75	219.25	5.5%	240.25	15.6%
50,000	364.00	388.00	6.6%	409.00	12.4%
75,000	520.25	556.75	7.0%	577.75	11.1%
100,000	676.50	725.50	7.2%	746.50	10.3%
125,000	832.75	894.25	7.4%	915.25	9.9%
150,000	989.00	1,063.00	7.5%	1,084.00	9.6%
175,000	1,145.25	1,231.75	7.6%	1,252.75	9.4%
200,000	1,301.50	1,400.50	7.6%	1,421.50	9.2%

**ENGINEERING REPORT
FOR
BRADSHAW WATER COMPANY, INC.
DOCKET NO. W-02476A-01-0502 (RATES)**

EXECUTIVE SUMMARY

According to the Arizona Department of Environmental Quality ("ADEQ"), Bradshaw Water Company ("Company") has major plant deficiencies. In a July 10, 2001, memorandum to Engineering, ADEQ states that ADEQ cannot determine if the Company is delivering water that meets the water quality standards required by Arizona Administrative Code, Title 18, Chapter 4. ADEQ further states that the Company failed to provide its annual lead and copper monitoring.

Engineering recommends that any rate adjustment approved as a result of this application not become effective until the first day of the month following the Company filing with the Director of the Utilities Division written documentation from ADEQ stating that the water system has no maximum contaminant level violations and is serving water that meets the water quality standards required by Arizona Administrative Code, Title 18, Chapter 4, (see section F, ADEQ compliance.)

- I. All water testing costs are presented as a pro forma expense on an annual basis. Engineering Staff estimates annual water testing costs to be \$1,683. (See Section H, Water Testing Expenses.)
- II. Recommended service line and meter installation charges are delineated in Table 3 of this report. (See Section I, Other.)
- III. Well No. 6 was sold to Shamrock Water Company via Decision No. 61273 (See Section I, Other.)
- V. The recommended depreciation rates for the Company are listed in Table 4. (See Section I, Other.)
- VI. The Company's non-account water was calculated to be 3.66 percent, which is within acceptable limits (10 percent). (See Section D, Water Usage.)
- VII. The Company should report its plant items in its 2001 Annual Report accordingly. (See Section I, Other.)

A. PURPOSE OF REPORT

This report was prepared in response to the application for a rate increase from Bradshaw Water Company, Inc. ("Bradshaw" or "Company"). An inspection and evaluation of the Bradshaw system was conducted by Dorothy Hains, Utility Engineer in the accompaniment of Don Lovell, Secretary of the Company, and Don Bohler, operator, on July 31, 2001.

B. LOCATION OF SYSTEM

The Company's service area is located near the Town of Prescott Valley, in Yavapai County. Figures 1 and 2 detail the location of the system in relation to other Commission regulated companies in Yavapai County and in the immediate area. The Company's service area includes portions of Sections 33 and 27 in Township 14 North and Range 1 West.

C. DESCRIPTION OF SYSTEM

The system consists of four wells, three storage tanks, four pressure tanks, and a distribution system. Figure 3 is a schematic drawing of the system; and a detailed facility description of the system is as follows:

I. Well Sites

A. Well Site No. 1

The site is located at Lot 20 on Fitzmaurice Drive. The well is enclosed in a wooden structure. This structure contains a well and two 1½-inch well meters (one meter is connected to Well No 1, the other meter is connected to Well No. 3).

Well No. 1, (its ADWR ID number is 55-501033), is 118 feet in depth. The well is equipped with a six-inch casing, a three-HP pump and a 1½-inch well meter. This well has a flow rate of 25 GPM. The water from Well No. 1 and Well No. 3 is pumped to the Lower Storage Tank Site.

Figure 1. County Map

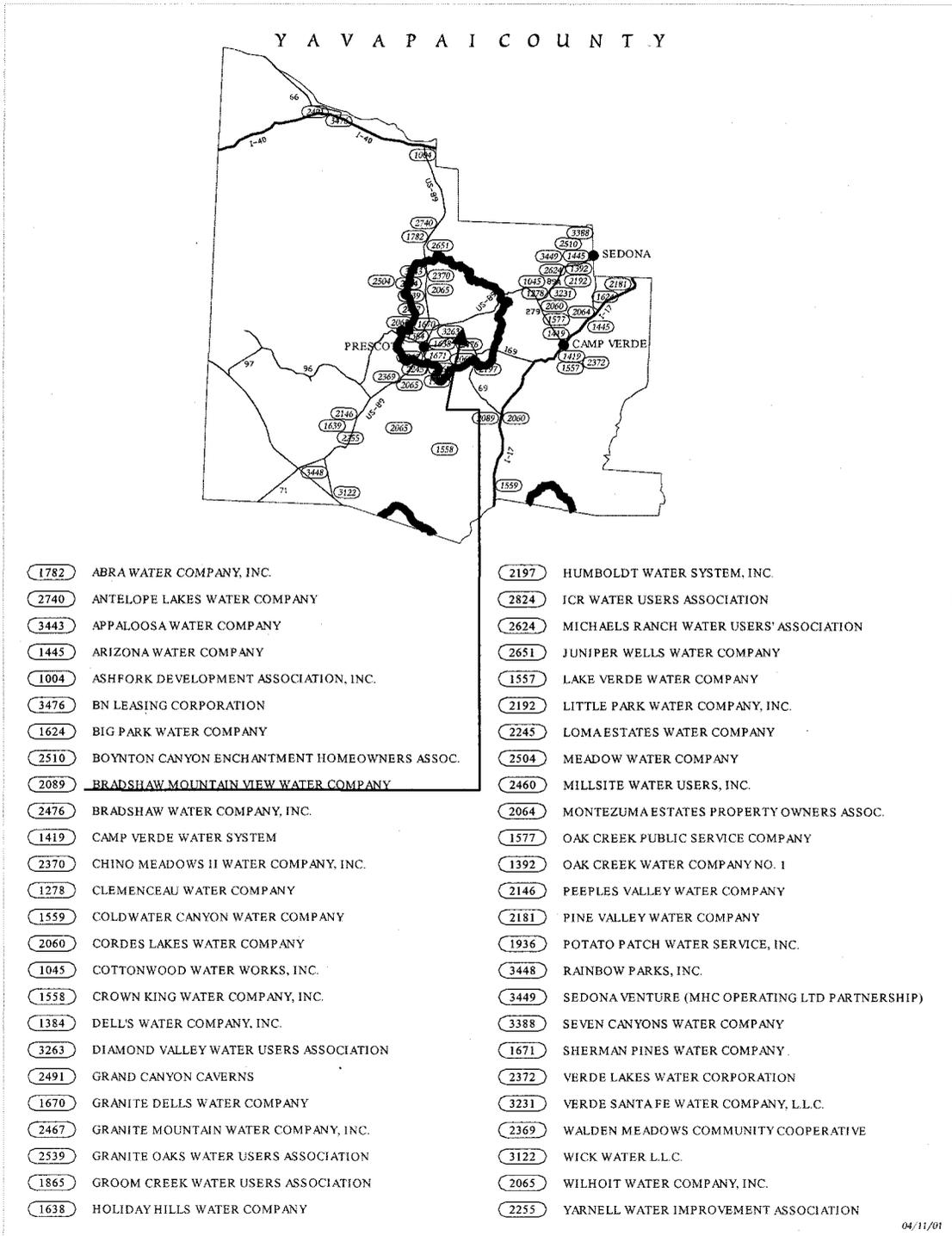
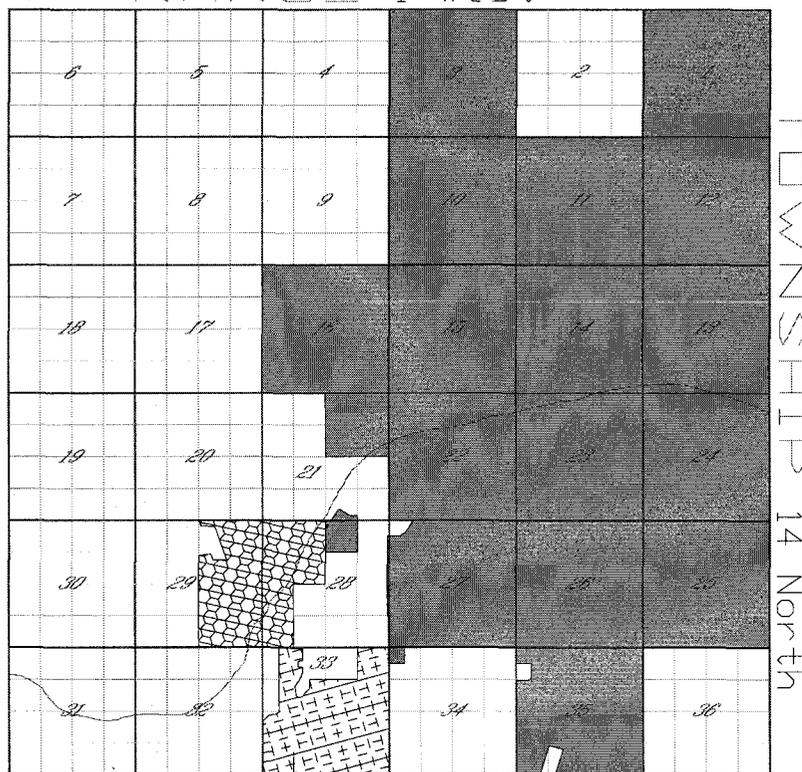


Figure 2 Certificate Service Area

COUNTY: *Yavapai*

RANGE 1 West



TOWNSHIP 14 North

-  W-2476 (1)
Bradshaw Water Company, Inc.
-  W-3263 (1)
Diamond Valley Water Users Corporation
-  (3)
Prescott Valley Water District
(Nonjurisdictional)

B. Well Site No.2

The site is located at Lot 23 on Fitzmaurice Drive. The well is enclosed in a wooden structure. Inside the well house are the well, a filter, a ½-HP filter pump, a 220-gallon pressure tank, and a ¾-HP booster pump.

Well No. 2, (its ADWR ID number is 55-511113), is 450 feet in depth. The well is equipped with a six-inch casing, a 1½-HP pump, and a 1½-inch well meter. This well has a flow rate of 7½ GPM. After the filter removes hardness out of the water, the water is pressurized in a 220-gallon pressure tank before it is delivered to the Lower Storage Tank Site. The 220-gallon tank was installed in July 2001.

C. Well Site No. 3

The site is also located at Lot 20 on Fitzmaurice Drive. The well is enclosed in a concrete block structure. The well is the only item installed inside this structure. The well water is pumped to Well Site No. 1.

Well No. 3, (its ADWR ID number is 55-524180), is 703 feet in depth. The well is equipped with a six-inch casing and a three-HP pump. Well No. 3 has a flow rate of two GPM. Well No. 3 is equipped with a 1½-inch well meter that is located inside the well house of Well Site No.1.

C. Well Site No. 7

The well is located between Lots 45 and 54 on Waters Edge Way. Well No. 7, [its Arizona Department of Water Resource ("ADWR") ID number is 55-610663], is 150 feet in depth. The well is enclosed in a wooden structure. The well is equipped with a six-inch casing, a two-horse power ("HP") pump and a 1½-inch well meter. This well has a flow rate of 15 gallons per minute ("GPM"). The well water is pumped to the Lower Storage Tank Site.

A two-inch meter box was installed next to the well house. The Company purchases the Prescott Valley Water Company's water through this two-inch meter via a 4-inch inter-tie main. The inter-tie system is equipped with a three-HP booster pump and a 1½-HP backup pump. The three-HP pump was replaced in July 2001. The inter-tie water is also pumped to the Lower Storage Tank Site. A radio-controlled relay is used to control the pumps.

D. Well No. 6

Well No. 6, (its ADWR ID number is 55-529906) was sold to Shamrock Water Co. in December 1998. The sale was approved by the Commissioner in Decision No. 61273.

II. Tank Sites

A. Lower Storage Tank Site

The site is located at Lot 93 on Fitzmaurice Drive. The tanks are enclosed by a six-foot tall chain link fence that was installed in early 2001. The float control devices are enclosed in a wooden structure. Two storage tanks, 33,200-gallon and 48,000-gallon each, are the only structures inside the fenced area. Both steel tanks are 24 feet in height. The 48,000-gallon storage tank was installed in early 2001, but it was not in service until summer 2001.

The stored water is delivered to customers by gravity flow or it is pumped to the Upper Storage Tank Site via a ¾-HP booster pump. Some customers are served directly by the pumped water through a pressure reducing valve.

B. Upper Storage Tank Site

The site is located at Lot 99 near French Drive. A six-foot tall chain link fence encloses the site. It contains of a 23,000-gallon storage tank, two fire flow booster pumps of ten-HP, a residential use booster pump of 1½-HP, a 1,000-gallon pressure tank, and a wooden storage building inside the fenced area. The steel storage tank is 16 feet in height. The water is pressurized through the booster pumps and pressure tank before it is delivered to customers.

C. Small Booster Station Site

The site is at Lot 6 on Creekside Drive. The station is enclosed in a partially buried underground concrete structure. The structure contains two 50-gallon pressure tanks and a one-HP booster pump. The Company utilizes this equipment to serve only Lots 6 and 7.

III. Distribution System

The distribution system includes 3,150 feet of 2-inch polyvinyl chloride ("PVC"), 10,715 feet of 4-inch PVC, 22,548 feet of 6-inch PVC, and 2,956 feet of 8-inch PVC. The distribution system serves 95 customers. Seventeen fire hydrants have been installed in Bradshaw's CC&N area.

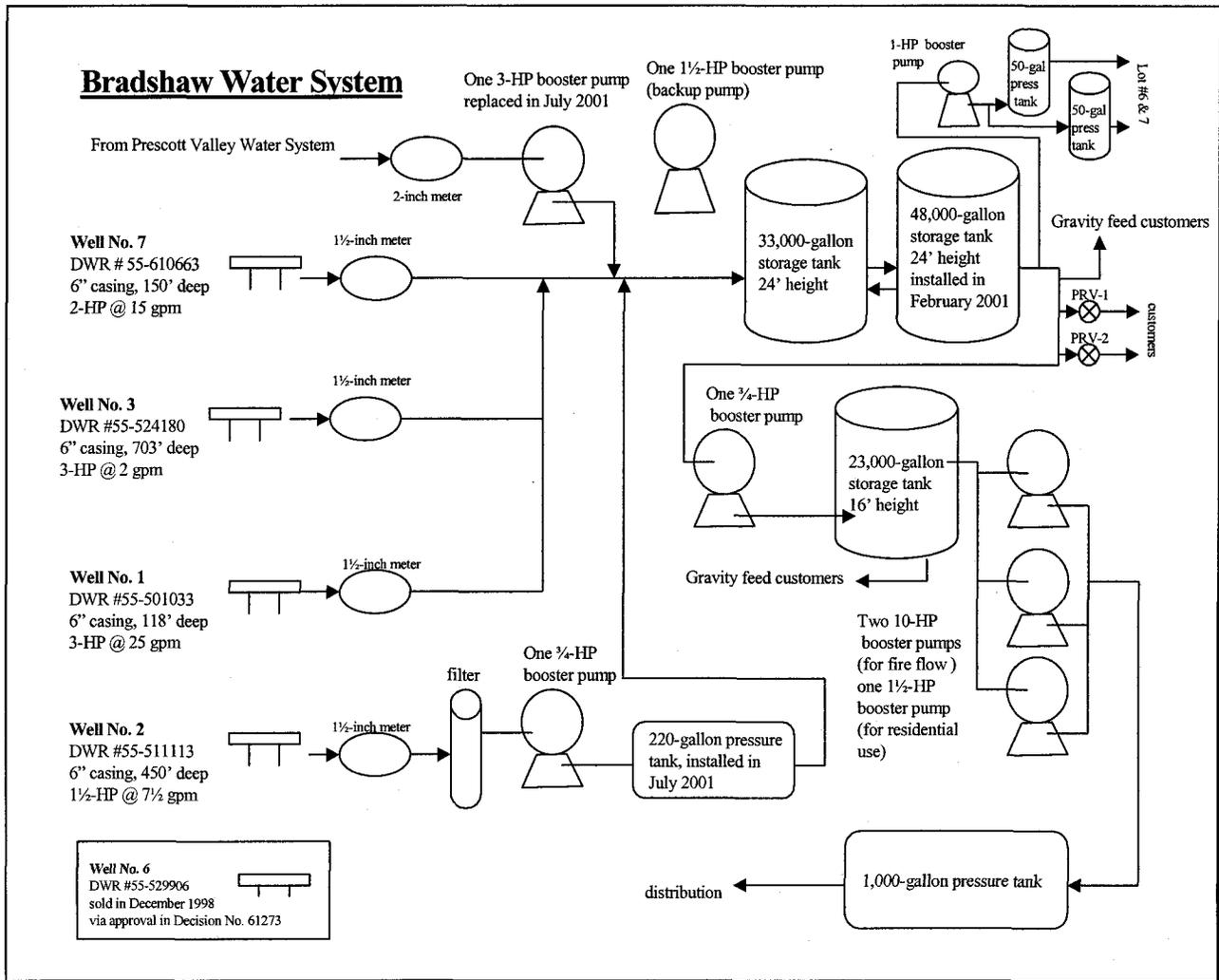


Figure 3. Bradshaw Water System Diagram

D. WATER USAGE

Table 1 summarizes the water usage in the Company's CC&N area. Figure 4 shows the Company's water consumption data for the test year ending December 31, 2000. During this period, Bradshaw experienced a daily average usage of 211 gallons per day ("gpd") per customer, a high usage of 284 gpd per customer and a low usage of 145 gpd per customer. The highest monthly usage occurred in July, when 766,000 gallons were sold to 87 customers. The lowest monthly usage occurred in February, when 384,000 gallons were sold to 82 customers.

Table 1. Water Usage

Month	Number of Customers	Total Water Sold (gallons)	Monthly Average (gal/month/customers)	Daily Average (gal/day/customers)
Jan 00	79	441,000	5,582	180
Feb 00	82	384,000	4,683	161
Mar 00	83	464,000	5,590	180
Apr 00	83	473,000	5,699	190
May 00	86	646,000	7,512	242
Jun 00	86	725,000	8,430	281
Jul 00	87	766,000	8,805	284
Aug 00	88	710,000	8,068	260
Sep 00	89	699,000	7,854	262
Oct 00	91	506,000	5,560	179
Nov 00	93	404,000	4,344	145
Dec 00	95	479,000	5,042	163
Total		6,697,000		
Average			6,431	211

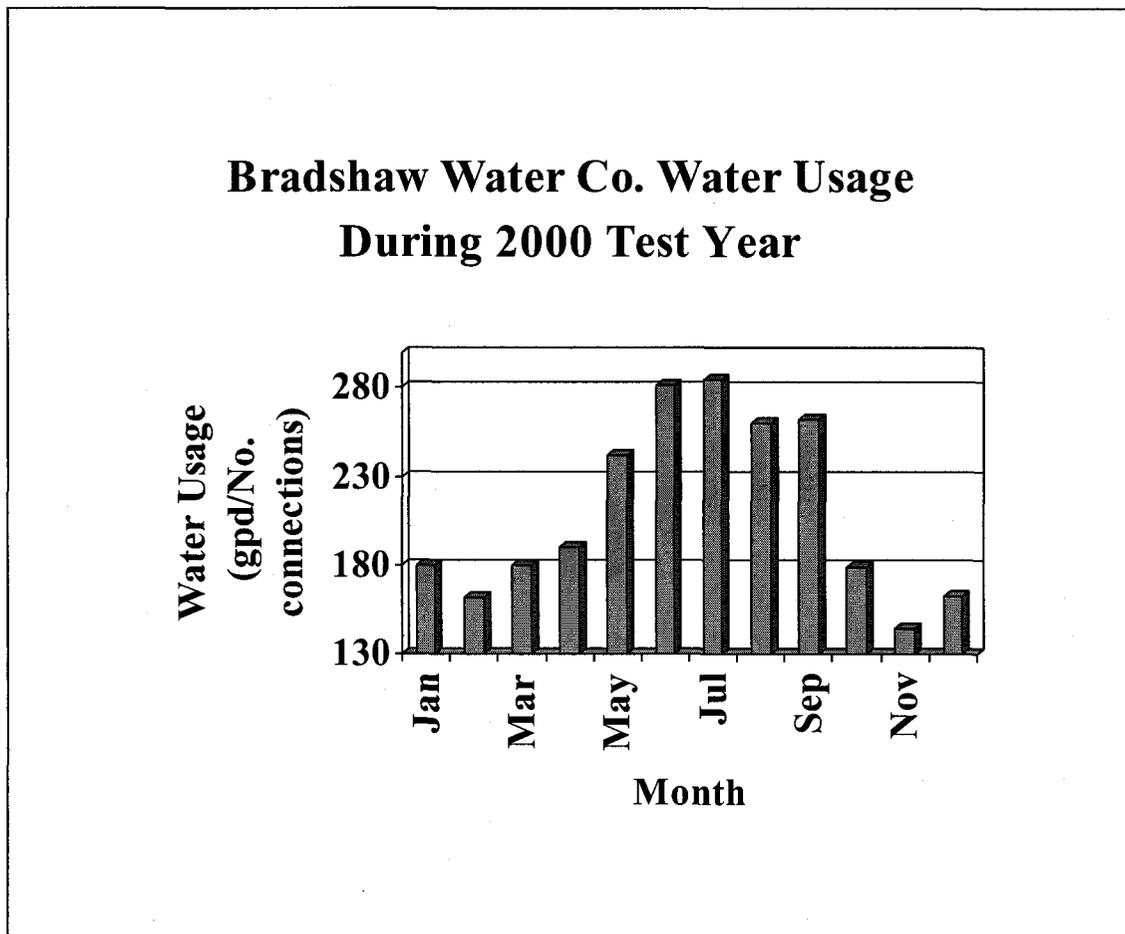


Figure 4 Water Usage

Non-account Water

Non-account water should be 10 percent or less and never more than 15 percent. It is important to be able to reconcile the difference between water sold and the water produced by the source. A water balance will allow a water company to identify water and revenue losses due to leakage, theft, and flushing. Non-account water was calculated to be 3.66 percent, which is within acceptable limits.

E. GROWTH PROJECTION

Figure 5 details total actual and projected growth for the system using linear regression analysis. The number of service connections was obtained from annual reports submitted to the Commission. Based on the service meter data contained in these reports, the number of connections increased from 33 at the end of 1992 to 95 by the end of 2000, with an approximate increase rate of 7.53 connections per year. Based on the analysis, the Company could have approximately 128 customers by the end of 2005. The following table summarizes actual and projected growth in the Company's existing service area.

Year	Nos. of Customers	
1992	33	Reported
1993	37	Reported
1994	44	Reported
1995	48	Reported
1996	63	Reported
1997	68	Reported
1998	73	Reported
1999	79	Reported
2000	95	Reported
2001	98	Estimated
2002	105	Estimated
2003	113	Estimated
2004	120	Estimated
2005	128	Estimated

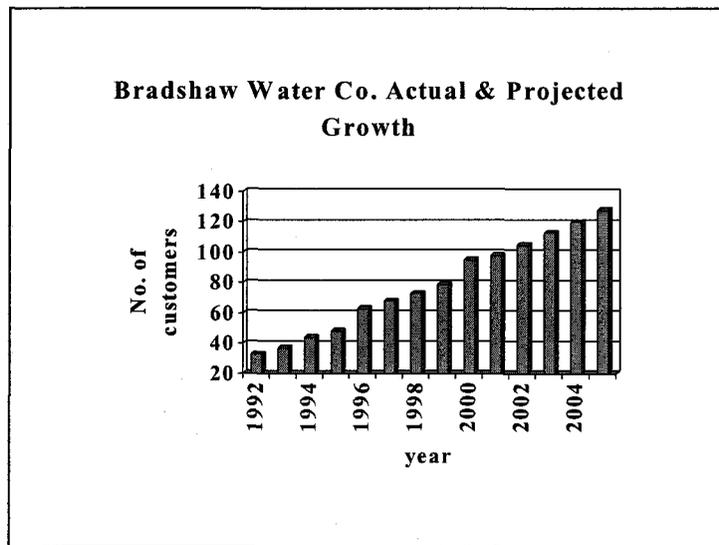


Figure 5 Actual and Projected Growth

F. **ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (“ADEQ”)**
WATER QUALITY COMPLAINE

ADEQ performed a plant inspection on August 2, 1994, and ADEQ found that the system has major deficiencies. In a July 10, 2001 memorandum to Engineering Staff (“Engineering”), ADEQ states that ADEQ cannot determine if this system is currently delivering water that meets the water quality standards required by Arizona Administrative Code, Title 18, Chapter 4. ADEQ further stated that the Company failed to provide its annual lead and copper monitoring.

Engineering recommends that any rate adjustment approved as a result of this application not become effective until the first day of the month following the Company filing with the Director of the Utilities Division written documentation from ADEQ stating that the water system has no maximum contaminant level violations and is serving water that meets the water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.

G. **ARIZONA DEPARTMENT OF WATER RESOURCES (“ADWR”)**
COMPLIANCE

Bradshaw is in ADWR’s Prescott Active Management Area. At present time, the Company pumps less than 250 acre-feet per year and is considered a “small provider” by ADWR. Therefore, Bradshaw is not subject to ADWR’s gallons per capita per day (“gpcd”) limit and conservation rules. Bradshaw is only required to monitor and report water use. Upon contacting ADWR, Engineering learned that Bradshaw is in compliance with these monitoring and reporting requirements.

H. WATER TESTING EXPENSES

On December 8, 1998, ADEQ adopted rules, which provide for a monitoring assistance program (MAP). The MAP program was fully implemented in 1999.

The MAP program will provide baseline testing for inorganic chemicals ("IOC"), synthetic organic chemicals ("SOC") and volatile organic chemicals ("VOC") for a cost based on meter size. Participation in the MAP program is mandatory for water systems, which serve less than 10,000 persons, (approximately 3,300 service connections). Bradshaw Water Company is subject to mandatory participation in the MAP program. Engineering calculated the testing costs based on the following assumptions:

1. MAP will do baseline testing on everything except asbestos, copper, lead, nitrates, nitrites, radio-chemicals, and coliform bacteria.
2. MAP will only perform composite tests on inorganic chemicals. However, it is in the best interest of the Company and its customers to know the basic inorganic quality of each contributing source. Since testing for these parameters does not represent an extraordinary expense, the cost of basic and secondary inorganic chemical analysis for each well is included in the Engineering's estimate of monitoring expense.
3. ADEQ testing is performed in 3 year compliance cycles. Therefore, monitoring costs are estimated for a 3 year compliance period and then presented as a pro forma expense on an annualized basis.
4. MAP fees were calculated from the ADEQ MAP rules.
5. All monitoring expenses are based on Engineering's best knowledge of lab costs and methodology and 3 points of entry.
6. The estimated water testing expenses represent a minimum cost based on no "hits" other than lead and copper, and assumes compositing of well samples. If any constituents were found, then the testing costs would dramatically increase.

Table I shows the estimated annual monitoring expense, assuming participation in the MAP program. Water testing expenses should be adjusted to the annual expense amount shown in Table 2, which is **\$1,683**.

TABLE 2
SUMMARY OF WATER TESTING COSTS
2 POINTS OF ENTRY
PARTICIPATION IN MAP

Contaminant	Cost per test	No. of tests per 3 years	total 3 year cost	Annual expense
Bacteriological (4/month)	15	144	2,160	720
Inorganics	240	2	480	160
Secondary Inorganics	120	2	240	80
Radio-chemicals (2/4yr)	55	1.50	82.5	27.5
Phase II & V				
Nitrate	25	12	300	100
Nitrite	15	12	180	60
Asbestos (2/9 yr)	180	1	180	60
Ba, Cn, F, Ni (V)	87	MAP*		
VOC	220	MAP		
Pesticides/SOC/Unregulated				
EDB & DBCP	160	MAP		
Group 1 pesticides	150	MAP		
Group 2 pesticides	200	MAP		
Group 3 herbicides	200	MAP		
Group 4 α benzo pyrene/adipate esters	360	MAP		
Group 5 carbamate pesticides	180	MAP		
Endothall	180	MAP		
Diquat	180	MAP		
Glyphosate	180	MAP		
Dioxin	600	MAP		
Lead & copper	25	15	375	125
MAP FEES (annual)				350
TOTAL				\$1,683

* MAP is the ADEQ Monitroing Assistance Program

I. OTHER

I. Service line and meter installation charges

The Application does not include a complete listing of service line and meter installation charges. Engineering recommends the charges listed below in Table 3.

Table 3. Service Line and Meter Installation Charges

Meter Size	Company Proposed	Engineering Proposed
5/8" x 3/4"	\$350	\$350
3/4 inch	\$400	\$400
1 inch	\$500	\$500
1½ inch	\$750	\$750
2 inch	\$1,500	\$1,500
3 inch	N/A	\$1,975
4 inch	N/A	\$3,040
6 inch	N/A	\$7,290

II. Plant Invoices

Both the application and the Company's annual report documented Company plant incorrectly. During its site inspection engineering noticed that plant had not been reported correctly. The Company owns two 1½-HP pumps (three were reported), one three-HP pump (none were reported), one one-HP pump (none were reported), two ¾-HP pumps (one was reported). The Company also owns one 220-gallon pressure tank (one 30-gallon tank was reported), and two 50-gallon pressure tanks (one was reported). Engineering recommends that the Company report its plant items correctly in future Annual Reports.

III. Depreciation Rates

Engineering recommends using its guidelines for depreciation rates. These guidelines are for annual accrual rates on an account-by-account basis to be used in the future for the calculation of annual depreciation expense. Table 4 shows these rates for the average service life and the annual accrual rate for each depreciable plant account.

Table 4. Water Depreciation Rates

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