

ANDERSON SPRINGS

COMMUNITY SERVICES DISTRICT

WATER RATE STUDY

January, 2021

SECTION I. PURPOSE AND OVERVIEW OF THE STUDY

PURPOSE

The Anderson Springs Community Services District ("District") needs to evaluate its rates for a number of reasons, including meeting future funding requirements, improving rate design to be fairer, and to meet current funding requirements. The rates developed in this study meet basic Proposition 218 requirements and were developed using industry standards and reflect the District's priority of keeping our water district independent.

Key Issues Addressed

Anderson Springs suffered devastating losses in the Valley Fire in 2015. At the time of the fire the District had 220 active customers. We have slowly added customers and as of January 2021 we have reached 106 customers, but that is still less than half the customers we had prior to the fire. Since the majority of our costs do not vary based on our number of customers, we have been trying to run our district on less than half the revenue we had before the fire, while our costs of running the District have not decreased. We have, therefore, been operating at a deficit, spending down our reserves each year, while making no provision for repair and replacement of our system's components: therefore, a rate increase is necessary for us to continue as an independent district.

RATE STUDY METHODOLOGY

Components of the Rate Study Methodology: A comprehensive utility rate study typically encompasses three major components: the utility's overall revenue requirements and financial plan, the cost-of-service, and rate structure design. These three components were used in this study, and are summarized below.

Step 1. Financial Plan/Review Requirements

Step 2. Cost of Service Analysis

Step 3. Rate Design

As a part of this rate study, we projected revenues, expenditures, and net revenue requirements, performed cost-of-service rate analysis, and computed the increase in total revenue collected from water rates needed. The following sections in this report present an overview of the methodologies, assumptions, and data used along with the financial plans and rates developed during this study.

The components shown above are based on industry standard cost of service methodologies, primarily from the American Water Works Association.

Rate Design Criteria: Several criteria are typically considered in setting rates and developing sound rate structures. The following is a simplified list of the attributes of a sound rate structure:

- Rates should be easy to understand from the customer's perspective.
- Rates should be easy to administer from the utility's perspective.
- Rates should promote the efficient allocation of the resource.
- Rates should be equitable and non-discriminatory (i.e. cost based).
- There should be continuity in the rate making philosophy over time.
- Rates should consider the customer's ability to pay.
- Rates should provide month-to-month and year-to-year revenue stability.

Rate Structure Issue: The starting point in considering rate structures is the relationship between fixed costs and variable costs. Fixed costs typically do not vary with the amount of water consumed. Debt service and District personnel are examples of fixed costs. In contrast, variable costs such as the cost of chemicals tend to change with the quantity of water sold. The vast majority of rate structures contain a fixed or minimum charge in combination with a volumetric charge.

The District's rate design objectives are not necessarily the same as those in other communities. For example, some communities, particularly those with very expensive purchased water costs, place a very high priority on conservation-oriented rates.

Key Financial Assumptions

- **Reserve Targets** – Target reserves for operations and maintenance and capital rehabilitation and replacement which essentially follow industry standards for utility fund management, are set at the following levels:
 - Operating and Maintenance Reserve – 90 days of O&M expenses (For revenue variations)
 - Emergency Reserve – 90 days of O&M expenses (For catastrophes)
 - Capital Rehabilitation and Replacement Reserve Fund

- **Inflation and Growth Projections**
 - Customer growth is assumed to be 5 additional customers per year for the next 5 years.
 - General costs are inflated at 2.2% annually, the 2020 Consumer Price Index.
 - No inflation is added to other items.

SECTION 2. WATER RATE STUDY

A. KEY WATER RATE STUDY ISSUES

The water rate analysis was undertaken with a few specific objectives, including:

- Generating addition revenue needed to meet projected funding requirements.
- Increasing the percentage of water rate revenue collected from volumetric rates vs. fixed monthly charges to improve conservation. Currently the District's collects almost all rate revenue from fixed charges.

B. WATER UTILITY REVENUE REQUIREMENTS

It is important for municipal utilities to maintain reasonable reserves in order to handle minor emergencies, fund working capital, maintain a good credit rating, and generally follow sound financial management practices. Rate increases are governed by the need to meet operating and capital costs, maintain adequate debt coverage, and build reserve funds. The current state of the District, with regard to these objectives is as follows:

- **Meeting Net Revenue Requirements:** For Fiscal Year 2017 through 2020, the projected net revenue requirement (with the exception of capital costs) plus debt repayment is approximately \$116,000. The District is currently running a deficit of \$66,000, while putting nothing away for capital rehabilitation and repair.
- **Operating Reserve** should normally be equal to 25% of the budgeted annual operating expenses, which is equal to a three-month cash cushion for normal operations. An Operating Reserve is intended to promote financial viability in the event of any short term fluctuation in revenues and/or expenditures.
- **Capital Rehabilitation and Replacement (R&R) Reserve** should typically be equal to a minimum of 33% of net depreciable capital assets, which equates to a 33 year replacement cycle.
- **Debt Reserve** Under the terms of our USDA loan, by this point we are required to have set aside an entire year's (\$11,621) loan payment.

Figure 1. Summary of Water Revenue Requirements

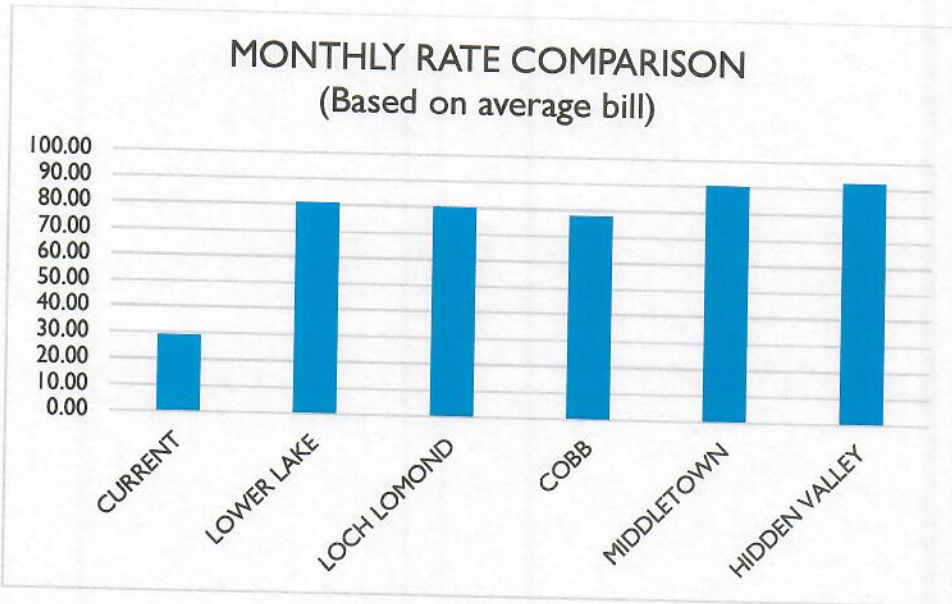
Figure 2. Summary of Water Reserve Funds

Figure 3. Repair & Replacement Reserve Fund

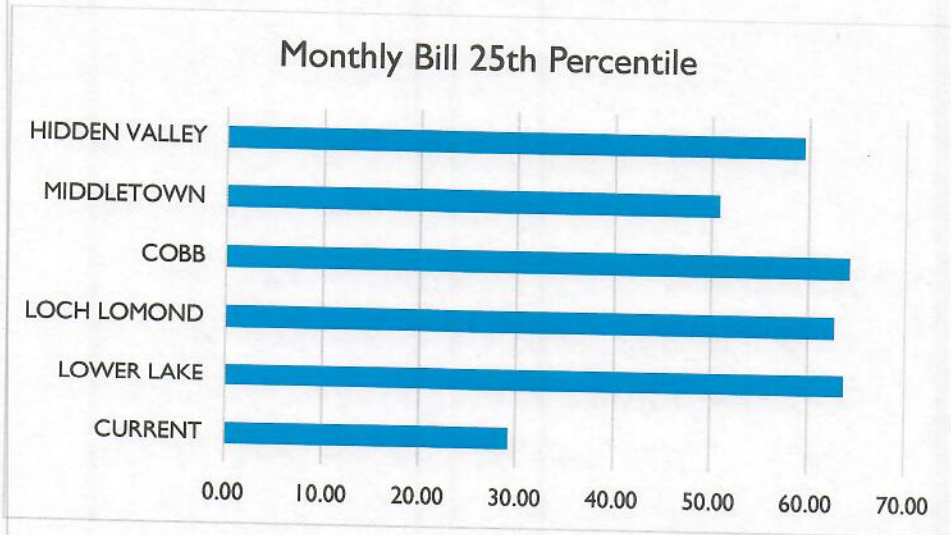
C. CURRENT VS. PROPOSED WATER RATES

Currently, the District charges all customers an annual fixed charge of \$350 (or \$36 monthly), which includes 240,000 gallons of water, plus a charge of \$0.20 per hundred gallons (100gal) for all water consumed that is greater than 240,000 gallons.

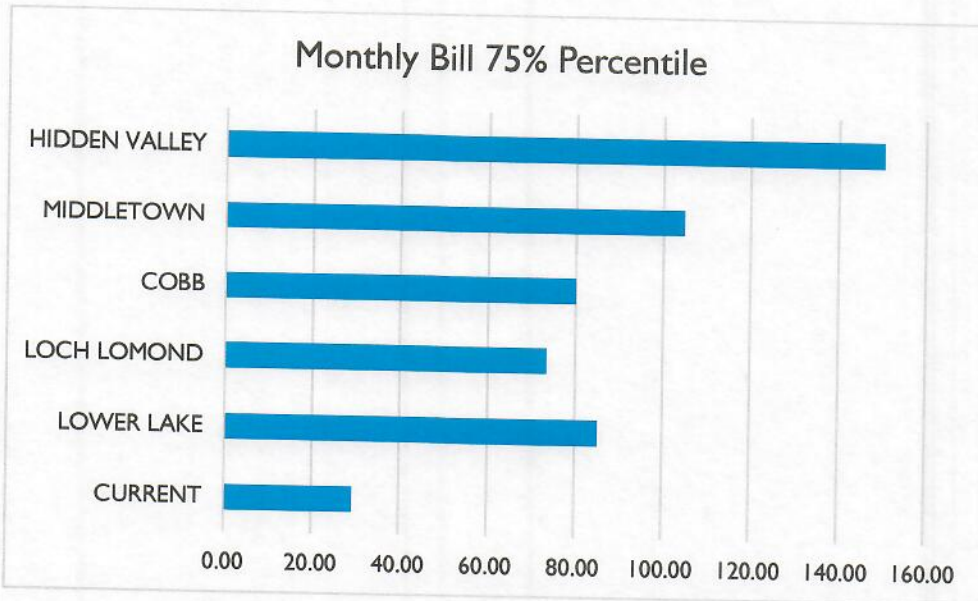
D. COMPARISON OF RATES TO NEARBY WATER DISTRICTS



An illustration of what our average bill would be if charged at current rates of neighboring companies. The average bill is computed based on our actual customer usages.



An illustration of what our monthly bills would be for customers at the 25th percentile (25% pay less, 75% pay more, using our actual customer usage, but using the rates of neighboring companies).



An illustration of what our monthly bills would be for customers at the 75th percentile (75% pay less, 25% pay more), using our actual customer usage, but using the rates of neighboring companies.

Our neighboring water districts currently have the following rate structures:

- *Lower Lake* – Monthly base rate \$63.36, includes allotment of 2,992 gallons (400 cubic feet): excess use is billed \$1.93 per hcf (100 cubic feet) to 1,100, next 1500 hcf billed at \$1.93, next 2000 hcf at \$2.09, next 2500 hcf at \$2.61, next 2500 hcf at \$3.13, and \$4.17 per hcf for any additional.
- *Loch Lomond* – Bi-monthly base rate of \$125 includes allotment of 6,000 gallons: excess use is billed at \$1.50 per 1Kgal for next 4000, next 5000 is billed at \$1.75 per 1Kgal, next 5000 is billed at \$2.00 per 1Kgal, next 5000 is billed at \$2.25 per 1Kgal, next 5,000 is billed at \$2.50 per 1Kgal, and then \$2.75 per 1Kgal for any additional.
- *Cobb* – Bi-monthly base rate of \$127 includes allotment of 2,000 gallons: excess use is billed at \$1.84 per (1Kgal) for next 8000 (1Kgal), \$2.09 per 1Kgal for next 5000 1Kgal, \$2.35 for next 5000 1Kgal, \$2.67 per 1Kgal for next 5000 1Kgal, 2.98 per 1Kgal for next 5000, and \$3.25 for any additional.
- *Callayomi (Middletown)* – Monthly base rate of \$33 includes no allotment, usage is billed at \$5.60 per 1Kgal.
- *Hidden Valley* – Monthly base rate is \$44.45 per month plus \$3.54 per hcf.

The Proposed New Rate Structure

CHARGES AND FEES		
	<u>CURRENT</u>	<u>PROPOSED</u>
Rate for 240,000 gallons per year	\$36/mo	\$110/mo
	\$350/yr	
Bad Check	\$25.00	\$35.00
Turn On Service	\$75.00	\$75.00
Transfer Fee (escrow)	\$75.00	\$75.00
Damages	costs	costs + Labor (min. 1 hr)
Inspections/Consultation	\$50/hour	\$200.00
Operator's Time/hour, 1 hr min.	\$50.00	\$50.00
Bulk Water per 1,000 gallons	n/a	\$0.13
After Hours Call-Out, hourly 1 hr. min.	\$75.00	\$75.00
Meter Installation, district meter, 5/8 or 3/4 includes customer shut-off valve	\$200.00 +	\$525.00
Customer shut-off valve - installation existing service	\$40.00+	\$75.00
Excess use, per 1,000 gallons	\$2.00	\$3.25
		Plus \$200.00

Figure 1 . Summary of Water Revenue Requirements

BUDGET CATEGORY	See Notes	Annual Inflation	FYE 6/22	FYE 6/23	FYE 6/24	FYE 6/25	FYE 6/26
WAGES / SALARIES / BENEFITS							
Watermaster (1)	\$31,642	2.2%	\$32,338	\$33,050	\$33,777	\$34,520	\$35,279
Water Operator (2)	\$15,000		\$15,330	\$15,667	\$16,012	\$16,364	\$16,724
Payroll taxes (2)	\$4,991		\$5,101	\$5,213	\$5,328	\$5,445	\$5,565
General Manager	\$24,000		\$24,528	\$25,068	\$25,619	\$26,183	\$26,759
Payroll Taxes (3)	\$2,568		\$2,624	\$2,682	\$2,741	\$2,802	\$2,863
Annual Sub-Total	\$78,201	2.2%	\$79,921	\$81,680	\$83,477	\$85,313	\$87,190
OFFICE and GENERAL OPERATIONS							
Audit (4)	\$1,800		\$1,840	\$1,880	\$1,921	\$1,964	\$2,007
Postage (5)	\$427		\$436	\$446	\$456	\$466	\$476
Copying and printing (6)	\$350		\$358	\$366	\$374	\$382	\$390
Insurance: Comprehensive policy (7)	\$2,945		\$3,010	\$3,076	\$3,144	\$3,213	\$3,284
Insurance: Workers Compensation (7)	\$560		\$572	\$585	\$598	\$611	\$624
Permits (8)	\$1,212		\$1,239	\$1,266	\$1,294	\$1,322	\$1,351
Rent for meeting space (9)	\$600		\$613	\$627	\$640	\$655	\$669
Travel (10)	\$1,500		\$1,533	\$1,567	\$1,601	\$1,636	\$1,672
Communication (11)	\$180		\$184	\$188	\$192	\$196	\$201
Office supplies and software (12)	\$1,577		\$1,612	\$1,647	\$1,683	\$1,720	\$1,758
Bank and brokerage fees (5) (7)	\$110		\$419	\$428	\$438	\$447	\$457
Election expenses (6)	\$160		\$164	\$167	\$171	\$175	\$178
State fees (4)	\$680		\$695	\$710	\$726	\$742	\$758
Dues & Subscriptions (13)	\$445		\$455	\$465	\$475	\$485	\$496
Annual Sub-Total	\$12,846		\$13,130	\$13,418	\$13,713	\$14,014	\$14,323
DEBT PAYMENTS							
Loan from USDA (6)	\$11,621		\$11,621	\$11,621	\$11,621	\$11,621	\$11,621
Annual Sub-Total	\$11,621		\$11,621	\$11,621	\$11,621	\$11,621	\$11,621
WATER QUALITY MONITORING							
Total Water Testing (4)	\$1,715		\$1,753	\$1,791	\$1,831	\$1,871	\$1,912
Annual Sub-Total	\$1,715		\$1,753	\$1,791	\$1,831	\$1,871	\$1,912
OPERATION & MAINTENANCE							
Equipment Rental, parts & Supplies (4)	\$7,427	2.2%	\$7,590	\$7,757	\$7,928	\$8,102	\$8,281
Contractors & Engineering (4)	\$3,879	2.2%	\$3,964	\$4,052	\$4,141	\$4,232	\$4,325
Vehicle:	\$4,032	2.2%	\$4,121	\$4,211	\$4,304	\$4,399	\$4,495
Annual Sub-Total	\$15,338	2.2%	\$15,675	\$16,020	\$16,373	\$16,733	\$17,101
SUB TOTAL OF ABOVE ANNUAL EXPENSES							
To Repair & Replacement Fund	\$119,721		\$122,101	\$124,530	\$127,014	\$129,552	\$132,147
	\$24,063		\$24,063	\$24,592	\$25,133	\$25,686	\$26,251
NON-OPERATING REVENUES	\$143,784		\$146,164	\$149,123	\$152,148	\$155,239	\$158,399
Miscellaneous Charges							
Interest from all accounts (including Reserves) (6)	\$750.00		\$750.00	\$767.00	\$783.00	\$801.00	\$818.00
Non-Operating Revenues Sub-Total	\$584.00		\$644.00	\$788.00	\$953.00	\$1,140.00	\$1,348.00
Operating Revenue	\$1,334.00		\$1,394.00	\$1,555.00	\$1,736.00	\$1,941.00	\$2,166.00
Revenues Needed	\$142,450.00		\$143,880	\$150,480	\$157,080	\$163,680	\$170,280
Available Revenues:			-\$890	\$2,912	\$6,668	\$10,382	\$14,047

Figure 1 NOTES TO SUMMARY OF REVENUE REQUIREMENTS

- 1 Actual wages 1/1/20-6/30/20 doubled. Cannot use annual since in last fiscal year the General Manager took over the position for a period of time after 6/30/20. This is the most accurate we can come. We pay no benefits, vacation or sick time.
- 2 For safety and practical reasons, one water technician cannot do all tasks alone, so a second technician is needed. This is a licensed position. In addition, our water master contemplates retirement in the next five years. He will need to train his successor in the intricacies of our system. Therefore, we are substituting the \$5,932 estimated using (1) above with a figure that approximates 19 hours per month instead of the approximately 4-1/2 our current second person works.
- 3 Payroll Taxes:

Social Security	7.65%
Medicare	1.45%
State Unemployment	1.60%
- 4 Actual 2018
- 5 Annual average of actual costs from June 2017 through December 2020. Due to various changes in operations using strict yearly expenditure would not give accurate numbers.
- 6 Estimate based on actual. Changes in operations make using strict historical data inaccurate.
- 7 Actual 2020
- 8 Permits:

State water resources (4)	\$612
County: County has recently informed us that we will be charged for permits for all work near county roads. Charge to be hourly to inspect completed work at a rate of \$50/hour (Estimate provided by County)	
	\$600
- 9 Rent for use of South Lake Fire meeting room once a month at \$50
- 10 Directors receive \$25 per physical meeting.
- 11 Based on disconnecting AT&T line and utilizing virtual phone and fax.
- 12 Office Supplies: Estimate based on actual

Payroll /payroll tax processor, estimate based on quote	\$400
Anti-virus and other computer program updates	\$500
Website hosting (Required by regs)	\$250
	\$427
- 13 Dues & Subscriptions:

California Rural Water Assn	\$198
USA North	\$150
California Association of Special Districts	\$197
- 14 The US Consumer price index inflation rate for 2021 is 2.2%
- 15 Emergency Reserve: 3 months of operating expense
 Operating Reserve: 3 months of operating expense
 Reserves set as per industry standards for utility companies.
- 16 Vehicle: Historically we were able to borrow vehicles from other companies, and currently we borrow a private vehicle. We need to make a provision to rent a 4WD truck to access the spring at an estimated cost of 2 days per month at \$126/day, and to reimburse our water master for gas and personal vehicle use at the estimated rate of 150 miles/month paid at the US government rate of 56 cents per mile.

Figure 2. Summary of Reserve Funds

Target Balances	2.2% Inflation	2021	2022	2023	2024	2025
Emergency Reserve Fund		27,025.00	27,619.55	28,227.18	28,848.18	29,482.84
Operating Reserve Fund		27,025.00	27,619.55	28,227.18	28,848.18	29,482.84
Loan Repayment Reserve		11,621.00	11,621.00	11,621.00	11,621.00	11,621.00
Repair & Replacement Fund		1,017,650.00	1,040,038.30	1,062,919.14	1,086,303.36	1,110,202.04
Total		\$1,083,321.00	\$1,106,898.40	\$1,130,994.50	\$1,155,620.72	\$1,180,788.71
Projected Balances	Beginning Of Year	2021	2022	2023	2024	2025
Emergency Reserve Fund	27,025.00	27,025.00	27,619.55	28,227.18	28,848.18	29,482.84
Operating Reserve Fund	27,025.00	27,025.00	27,619.55	28,227.18	28,848.18	29,482.84
Loan Repayment Reserve	11,621.00	11,621.00	11,621.00	11,621.00	11,621.00	11,621.00
Repair & Replacement Fund	40,000.00	63,207.00	90,747.00	122,581.00	158,672.00	198,984.00
(Beginning of year is an estimate)						
Total		\$128,878.00	\$157,607.10	\$190,656.36	\$227,989.36	\$269,570.68
Interest @ .5%		\$644.39	\$788.04	\$953.28	\$1,139.95	\$1,347.85

Figure 3. Capital Rehabilitation & Replacement Reserve Fund

Date: 1/1/21

System Name: ANDERSON SPRINGS CSD

Service Connections: 111

QTY	COMPONENT	UNIT COST	INSTALLED COST	AVG LIFE, YEARS	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
1	Submersible Pump, 20 HP (1 standby spare)	9000	9000	7	1285.71	107.14	0.97
2	Storage Tank, Steel Gallons: 240,000	240000	480000	50	9600.00	800.00	7.21
2	Hypochlorinator w/ Tank & Pump, Complete	800	1600	10	160.00	13.33	0.12
600	Pipe w/ sand bedding, 4" (Enter linear feet for quantity)	45	27000	50	540.00	45.00	0.41
7000	Pipe w/ sand bedding, 6" (Enter linear feet for quantity)	60	420000	50	8400.00	700.00	6.31
7	Standpipe Hydrant, 2-1/2"	900	6300	20	315.00	26.25	0.24
106	Customer Meter w/ Box & Shutoff, Complete	250	26500	20	1325.00	110.42	0.99
10	Distribution Valve, 2-1/2"	150	1500	10	150.00	12.50	0.11
10	Distribution Valve, 6"	600	6000	20	300.00	25.00	0.23
6	Air & Vacuum Relief Valve, Typical	375	2250	20	112.50	9.38	0.08
50	Curb Stops	110	5500	20	275.00	22.92	0.21
500	4" PVC Pipe feet	2.7	1350	20	67.50	5.63	0.05
50	Core Stops	58	2900	20	145.00	12.08	0.11
111	Customer Meter with Valve Shutoff	250	27750	20	1387.50	115.63	1.04
TOTALS:			\$1,017,650.00		\$24,063.21	\$2,005.27	\$121.02

NOTE: Installed costs are averages, and include all materials and contracted labor and equipment. Items based on estimate by Water Master.

Figure 4: FIVE YEAR BUDGET PROJECTION

Inflation Factor (%): 2.2

EXPENSES AND SOURCE OF FUNDS	FYE 6/22	FYE 6/23	FYE 6/24	FYE 6/25	FYE 6/26
OPERATIONS & MAINTENANCE EXPENSES					
Salaries and benefits	79,921.00	81,679.26	83,476.21	85,312.68	87,189.56
Equipment Rental, Parts & Supplies	7,590.00	7,756.98	7,927.63	8,102.04	8,280.29
Fees Regulatory	1,934.00	1,976.55	2,020.03	2,064.47	2,109.89
Water Testing	1,753.00	1,791.57	1,830.98	1,871.26	1,912.43
Transportation	4,121.00	4,211.66	4,304.32	4,399.01	4,495.79
Office supplies	3,628.00	3,707.82	3,789.39	3,872.75	3,957.96
Total Operation and Maintenance Expenses:	98,947.00	101,123.83	103,348.56	105,622.23	107,945.92
GENERAL & ADMINISTRATIVE EXPENSES					
Engineering and professional services	5,804.00	5,931.69	6,062.19	6,195.55	6,331.86
Capital Improvement Plan (CIP)	24,063.00	24,592.39	25,133.42	25,686.35	26,251.45
Insurance	3,582.00	3,660.80	3,741.34	3,823.65	3,907.77
Debt Service (flat rate)	11,621.00	11,621.00	11,621.00	11,621.00	11,621.00
Meeting Costs	2,146.00	2,193.21	2,241.46	2,290.77	2,341.17
Total General and Administrative Expenses:	47,216.00	47,999.09	48,799.41	49,617.33	50,453.25
TOTAL EXPENSES (Line 13+ Line 21):	146,163.00	149,122.92	152,147.97	155,239.56	158,399.17
SOURCE OF FUNDS / REVENUES RECEIVED					
Cash Revenues (Water rates, flat rate)	143,880.00	150,480.00	157,080.00	163,680.00	170,280.00
Fees and services	750.00	766.50	783.36	800.60	818.21
Withdrawal from capital or other reserves			0.00	0.00	0.00
Interest Income	644.00	788.00	953.00	1,140.00	1,348.00
TOTAL REVENUE (Lines 26 through 34):	145,274.00	152,034.50	158,816.36	165,620.60	172,446.21
NET LOSS OR GAIN:	-889.00	2,911.58	6,668.40	10,381.04	14,047.04

Number of Customers:

109	114	119	124	129
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Monthly Rate per Customer:
(total expenses/ # of customers/ 12)

\$110.00	\$110.00	\$110.00	\$110.00	\$110.00
\$111.75	\$109.01	\$106.55	\$104.33	\$102.33