

ARROWBEAR PARK COUNTY WATER DISTRICT WASTEWATER RATE STUDY



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Funding provided by:
U.S. Department of Health and
Human Services

April 2022

Executive Summary

Arrowbear Park County Water District (APCWD) was formed in 1953 under Division 12 of the California Water Code to provide water, sewer collection and fire protection services to the residents and visitors of Arrowbear Lake. APCWD is a special district governed by a locally elected five-member board of directors. The District's day-to-day operations are conducted under the direction of General Manager Norman Huff. Sewer services are provided through approximately 12 miles of sewer collection and transmission lines accessed through 376 manholes. The District's sewage effluent is transmitted to the Regional Wastewater Treatment Plant in Running Springs. The District services 953 active sewer connections.

APCWD requested RCAC conduct a rate analysis. RCAC worked with APCWD General Manager Norman Huff to develop several rate adjustment options to present to the Board. The general manager has been designated by the Board with the authority to determine equivalent dwelling units (EDUs) for the wastewater system's connections. The rates are established by APCWD's Board of Directors. Several proposed rate adjustment options were presented to the Board. The Board then selected the option it believed would best serve the community and the District's wastewater enterprise.

The rates are established by APCWD's Board of Directors. APCWD has requested RCAC conduct this wastewater rate study to evaluate these four primary areas:

- Determine if the current rate structure is adequate to ensure sustainability.
- Propose an alternate rate structure if existing structure lacks sustainability.
- Analyze affordability of a newly proposed rate adjustment(s).
- Recommend reserve requirements for system sustainability and to meet debt covenants.

RCAC reviewed APCWD's financial documents, including three years of audited financial statements, fiscal year ended June 30, 2021 internal income statement and the 2022 approved budget. From those documents, and with the assistance of the general manager, five-year cost projections were created assuming a 3 percent annual inflation rate. In reviewing cost information against revenue at the current rates, it was determined that a rate adjustment is necessary.

The completed rate study offers a rate adjustment option based on the EDU schedule created by the general manager. The rate adjustment sets one EDU at \$44.28 in the first year with subsequent annual increases of 8 percent. In the first three years of this rate schedule, operating revenue will not fully fund recommended reserve accounts. The shortage will be recovered in the final two years with excess revenue over costs of \$5,023 over the five-year period.

APCWD Wastewater Rate Five Year Schedule Per EDU					
Current	Year 1	Year 2	Year 3	Year 4	Year 5
\$41.00	\$44.28	\$47.27	\$50.46	\$53.87	\$57.50

Table of Contents

Executive Summary	1
1. Introduction	3
2. Rate Study Process	5
3. System Basic Statistics	6
4. Current Financial Condition and Analysis	7
5. Wastewater Reserves	11
6. Wastewater Rate Study - Budget & Calculation of Alternatives	13
7. Conclusions and Recommendations.....	16
8. Proposition 218	17
Table 1: Current Wastewater Rate Structure	8
Table 2: Total Wastewater Rate Revenue under Current Rates	9
Table 3: Affordability Index Current Rates	10
Table 4: Funding Sources for Asset Replacement	12
Table 5: Wastewater Budget Five-Year Projection	14
Table 6: Wastewater Revenue against Projected Costs after Rate Adjustment.....	15
Table 7: Wastewater Rate Adjustment Five-Year Rate Schedule.....	15

1. Introduction

Rural Community Assistance Corporation

Founded in 1978, RCAC provides training, technical, and financial resources and advocacy so rural communities can achieve their goals. Since 1978, our dedicated staff and active board, coupled with our key values: leadership, collaboration, commitment, quality, and integrity, have helped effect positive change in rural communities across the West.

RCAC's work includes environmental infrastructure (water, wastewater and solid waste facilities); affordable housing development; economic and leadership development; and community development finance. These services are available to communities with populations of fewer than 50,000, other nonprofit groups, Tribal organizations, farmworkers, colonias and other specific populations. Headquartered in West Sacramento, California, RCAC's employees serve rural communities in 13 western states and the Pacific islands.

Purpose of the Rate Analysis

An accurate and useful rate analysis not only identifies the total annual revenue required by a utility to conduct its normal day-to-day operations, but it also anticipates and plans for future operating and capital needs. Furthermore, the analysis attempts to determine whether the projected revenue under existing rates will satisfy those needs. The primary objective of this process is to ensure that the utility has the ability to obtain sufficient funds to develop, construct, operate, maintain and manage its wastewater system on a continuing basis, in full compliance with federal, state and local requirements.

Guiding Principles of this Rate Study

RCAC has been elected to follow the below guiding principles on all rate analyses:

Sustainability – Wastewater rates should cover the costs to the wastewater utility to allow it to provide wastewater services for the foreseeable future and prepare for system repair and replacement. This will allow the system to continue to provide wastewater services to future generations.

Fair – Wastewater rates should be fair to all rate payers. The utility should not charge more for wastewater costs than the cost to collect and treat the waste. However, the costs should include operations, maintenance, reserves and all other costs related to the collection and treatment in the foreseeable future. Therefore, the proposed rates are based on the wastewater utility budget, needed capital repair and replacement and historic wastewater enterprise costs.

Justifiability – Rates should be easily justifiable. When determining rate recommendations, RCAC considers if the proposed rate adjustments are necessary and justifiable given the true costs of operating the system safely.

Board Responsibilities

Board responsibilities for the operating of the system include maintaining sufficient revenue and reserves to provide for ongoing maintenance for the foreseeable future. The ultimate responsibility of the Board is to ensure public health is preserved and compliance with environmental regulations.

Disclaimer

The findings, recommendations, and conclusions contained in this rate analysis are based on financial information provided to RCAC by APCWD. Although reasonable care was made to ensure the reliability of this information, no warranty is expressed or implied as to the correctness, accuracy or completeness of the information contained herein. Any action taken based on such findings, recommendations, or conclusions is undertaken at the discretion of APCWD. In no event will RCAC or its partners, employees, or agents, be liable for any decision made or action taken in reliance on the information contained in this analysis.

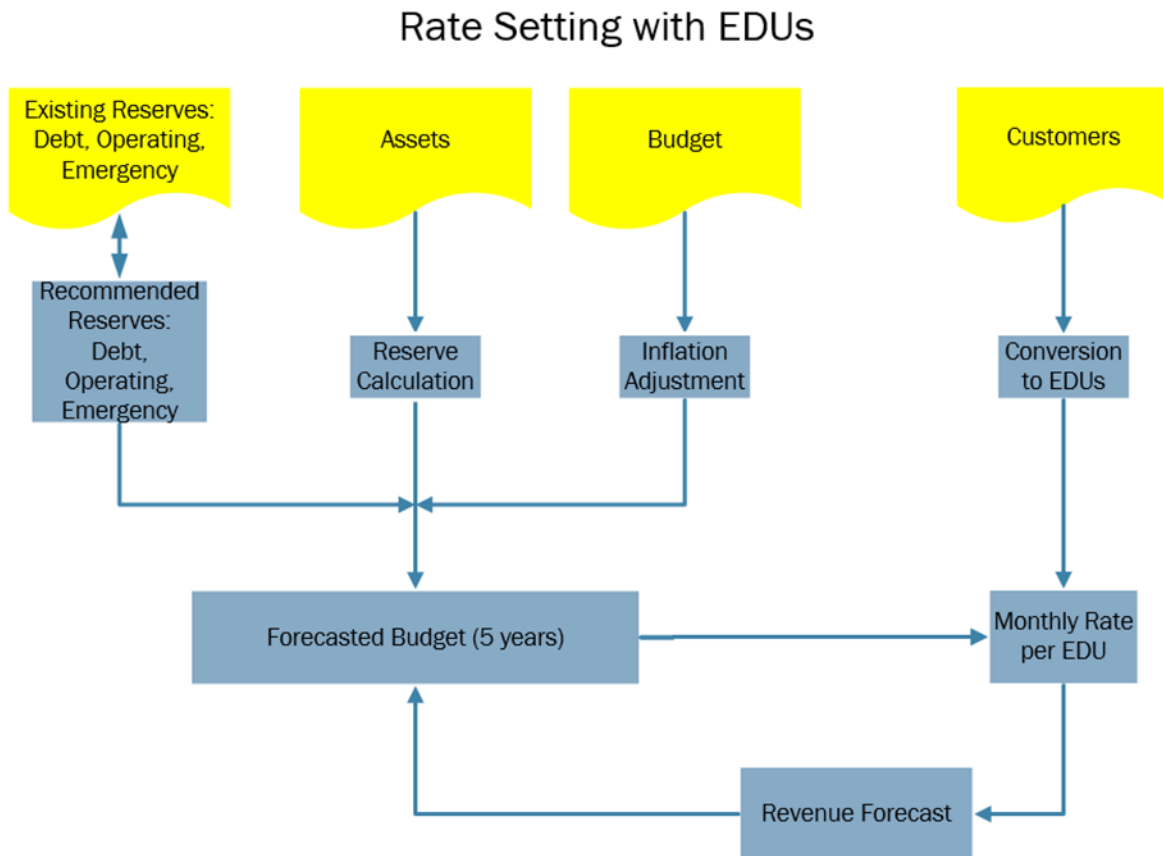
2. Rate Study Process

The figure¹ below explains the process of setting rates.

We begin with the a of all existing reserves, capitalized assets, the current budget and the current sales history as provided by district staff.

The required reserves are calculated from the assets list and fed into a five-year budget projection. The budget is adjusted for inflation, estimated to be 3 percent per year.

With input from the general manager and RCAC, this process was repeated several times to arrive at an acceptable rate that would balance the forecasted budget.



Note: EDUs (Equivalent Dwelling Units) are a method of calculating rates of systems (a wastewater system, in this case) without meters. APCWD has 25 commercial connections and 926 residential connections.

¹ All yellow fields and cells in the figures and exhibits of this report are based on external data. All blue fields or cells are calculated.

3. System Basic Statistics

Community

Arrowbear Lake, California is a census-designated place located in San Bernardino County, California. The service area population is estimated at 1,396. The residents receive wastewater services through Arrowbear County Water District (APCWD).

Arrowbear Park County Water District (APCWD) was formed in 1953 under Division 12 of the California Water Code to provide water, sewer collection and fire protection services to the residents and visitors of Arrowbear Lake.

With a median household income (MHI) of less than 80 percent of the state MHI, Arrowbear Park is classified as a disadvantaged community.

System Description

Sewer services are provided through approximately 12 miles of sewer collection and transmission lines accessed through 376 manholes. The District's sewage effluent is transmitted to the Regional Wastewater Treatment Plant in Running Springs. The District services 953 active sewer connections.

Future Population and Usage Projections

APCWD serves 953 wastewater connections. Pursuant to information received by the general manager, this analysis assumes that minimal growth may occur within the service area over the next five years and the growth will have little or no impact on the system cost and rates.

4. Current Financial Condition and Analysis

Current Budget

APCWD's revenue is derived primarily from rates. While the current approved budget will recover all operating and capital costs, it will not fully fund reserves for operations during periods of low cash flow or future replacement of equipment.

Common Wastewater Rate Structures

The following are types of rates structures common to wastewater systems:

- **Uniform Flat Rate:** All customers pay the same amount. This type of rate is easiest to administer, however, it may not be fair to those producing less waste.
- **Equivalent Dwelling Unit (EDU) or Equivalent Residential Unit (ERU):** In this type of structure, customers are charged by the number of EDUs determined by the type or size of the specific class of connection. An equivalent unit is established based on a single-family dwelling. Each customer is charged based on the number of EDU's that have been assigned to his or her connection. For example, a single-family residence may be assigned one EDU, while a laundromat (by the nature of its business) may be assigned four EDU's.
- **Biochemical Oxygen Demand (BOD):** BOD is the amount of dissolved oxygen needed by aerobic biological organisms in a body of water to break down organic material present. In this type of rate structure, the rate is based on waste strength commonly associated with a particular type of connection and the necessary effort to break down the waste.
- **Water Usage:** Wastewater rates are often based on water usage. The assumption in this case is that the more water that is used by a connection, the more wastewater that connection will produce. With this type of rate, a base rate is established and a commodity rate is charged based on water usage.

Current Rate Structure

Currently, customers are charged a monthly rate depending on the type and size of connection. The current rate is loosely based on the EDU method. However, it is difficult to determine how many EDUs each connection is being charged. The APCWD's general manager conducted a comprehensive review of the connections and established a proposed EDU schedule upon which the recommended rate adjustment is based.

Ultimately, wastewater rates are established by the Board of Directors with recommendations and consultation with the general manager and subject to the opportunity for the public to protest pursuant to California Proposition 218 guidelines.

Table 1: Current Wastewater Rate Structure

APCWD Current Rates Against Projected Costs	# Connections	2021 Monthly Rate
Residential	926	\$ 41.00
Crystal Creek, LLC	1	\$ 41.00
Blondie's Restaurant	1	\$ 41.00
Tantric Tea, LLC	1	\$ 41.00
Camp Arrowbear	1	\$ 473.76
Deep Creek Motel	1	\$ 218.81
Tantric Tea, LLC	1	\$ 41.00
Arrowbear Liquor Store	1	\$ 41.00
Connell, Christopher & Terrisa	1	\$ 123.00
Ito, Ginger	1	\$ 41.00
Deep Creek Drive-In	1	\$ 41.00
Nunez, Angie & Szabo, Dezso	1	\$ 41.00
Leroy's Board Shop	1	\$ 41.00
Mountain Veterinarian	1	\$ 41.00
Padilla, Brandon C/O LH Meyer	1	\$ 41.00
Arrowhead Enterprises, Inc.	1	\$ 41.00
Burrtec - KGB Properties, Inc.	1	\$ 41.00
CALTRANS	1	\$ 238.25
USDA Dept. of Forestry	1	\$ 259.43
Deer Lick Car Wash	1	\$ 41.00
Leroy's Board Shop	1	\$ 41.00
Camp Conifer	1	\$ 94.95
Dewitt, Steven Victor	1	\$ 41.00
Above & Beyond	1	\$ 41.00
Arrowhead Enterprises, Inc.	1	\$ 41.00
Ultramar Gas Station	1	\$ 41.00

Table 2: Total Wastewater Rate Revenue under Current Rates

APCWD Current Rates Against Projected Costs	# Connections	2021 Monthly Rate	Average Monthly Base Revenue	Average Annual Base Revenue		
Residential	926	\$ 41.00	\$ 37,966.0	\$ 455,592.0		
Crystal Creek, LLC	1	\$ 41.00	\$ 41.0	\$ 492.0		
Blondie's Restaurant	1	\$ 41.00	\$ 41.0	\$ 492.0		
Tantric Tea, LLC	1	\$ 41.00	\$ 41.0	\$ 492.0		
Camp Arrowbear	1	\$ 473.76	\$ 473.8	\$ 5,685.1		
Deep Creek Motel	1	\$ 218.81	\$ 218.8	\$ 2,625.7		
Tantric Tea, LLC	1	\$ 41.00	\$ 41.0	\$ 492.0		
Arrowbear Liquor Store	1	\$ 41.00	\$ 41.0	\$ 492.0		
Connell, Christopher & Terrisa	1	\$ 123.00	\$ 123.0	\$ 1,476.0		
Ito, Ginger	1	\$ 41.00	\$ 41.0	\$ 492.0		
Deep Creek Drive-In	1	\$ 41.00	\$ 41.0	\$ 492.0		
Nunez, Angie & Szabo, Dezso	1	\$ 41.00	\$ 41.0	\$ 492.0		
Leroy's Board Shop	1	\$ 41.00	\$ 41.0	\$ 492.0		
Mountain Veterinarian	1	\$ 41.00	\$ 41.0	\$ 492.0		
Padilla, Brandon C/O LH Meyer	1	\$ 41.00	\$ 41.0	\$ 492.0		
Arrowhead Enterprises, Inc.	1	\$ 41.00	\$ 41.0	\$ 492.0		
Burrtec - KGB Properties, Inc.	1	\$ 41.00	\$ 41.0	\$ 492.0		
CALTRANS	1	\$ 238.25	\$ 238.3	\$ 2,859.0		
USDA Dept. of Forestry	1	\$ 259.43	\$ 259.4	\$ 3,113.2		
Deer Lick Car Wash	1	\$ 41.00	\$ 41.0	\$ 492.0		
Leroy's Board Shop	1	\$ 41.00	\$ 41.0	\$ 492.0		
Camp Conifer	1	\$ 94.95	\$ 95.0	\$ 1,139.4		
Dewitt, Steven Victor	1	\$ 41.00	\$ 41.0	\$ 492.0		
Above & Beyond	1	\$ 41.00	\$ 41.0	\$ 492.0		
Arrowhead Enterprises, Inc.	1	\$ 41.00	\$ 41.0	\$ 492.0		
Ultramar Gas Station	1	\$ 41.00	\$ 41.0	\$ 492.0		
			\$ -	\$ -		
Total Base Revenue	951		\$ 40,153.20	\$ 481,838.40		
Budget Assuming 3% Inflation per year	6/30/2023	6/30/2024	6/30/2025	6/30/2026	6/30/2027	5 Year Total
Total Monthly Required Reserves Fund	\$ 9,309	\$ 9,309	\$ 9,309	\$ 9,309	\$ 9,309	
Total yearly required reserve fund	\$ 111,710	\$ 112,065	\$ 112,431	\$ 112,807	\$ 113,195	\$ 562,209
Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operating Budget	\$ 473,326	\$ 487,525	\$ 502,151	\$ 517,216	\$ 532,732	\$ 2,512,950
Total Operating Budget	\$ 585,036	\$ 599,590	\$ 614,582	\$ 630,023	\$ 645,927	\$ 3,075,158
	6/30/2023	6/30/2024	6/30/2025	6/30/2026	6/30/2027	5 Year Total
Estimated Annual Revenue From Base Rate	\$ 481,838	\$ 481,838	\$ 481,838	\$ 481,838	\$ 481,838	\$ 2,409,192
Net Operating Revenue Over/(under) Operating Costs	\$ (103,197)	\$ (117,752)	\$ (132,743)	\$ (148,185)	\$ (164,089)	\$ (665,966)

Table 2 calculates how much revenue each customer category's wastewater rate produces and demonstrates the net loss in income according to the difference between total income and total costs. If

rates are not increased as soon as possible, the district will experience a net loss from wastewater service revenue in the amount of \$665,996 over the five-year period.

Current Rate Structure Affordability Index

The affordability index measures the burden of costs passed from the wastewater utility to the users against the median household income (MHI) for the area and is used by funding agencies to determine grant and low interest loan eligibility. The MHI is calculated for residential rates only. Many funding organizations look for an affordability ratio of at least 1.5 percent before approving grant money to low-income communities.

Affordability Index = average annual residential bill for wastewater / annual MHI

Table 3: Affordability Index Current Rates

Single Family Monthly Rate	Annual Rate	MHI	Affordability Index
\$41.00	\$492	\$56,591	0.87%

The affordability index for a single-family residential customer is 0.87 percent for wastewater service.

5. Wastewater Reserves

Reserves are an accepted way to stabilize and support a utility financial management. Small systems usually fund the operating expenses but do not often consider putting money aside for a specific upcoming financial need or project, or for an amount that can be used to provide rate stabilization in years when revenues are unusually low or expenditures are unusually high. The rationale for maintaining adequate reserve levels is two-fold. First, it helps to ensure that the utility will have adequate funds available to meet its financial obligations in times of varying needs. Secondly, it provides a framework around which financial decisions can be made to determine when reserve balances are inadequate or excessive and what specific actions need to be taken to remedy the situation.

Utility reserve levels can be thought of as a savings account. Reserve balances are funds that are set aside for a specific cash flow requirement, financial need, project, task or legal covenant. Common reserve balances are established around the following four areas: operating reserve, capital replacement, emergency and debt service reserve. These balances are maintained in order to meet short-term cash flow requirements, and at the same time, minimize the risk associated with meeting financial obligations and continued operational needs under adverse conditions.

Debt Reserve

APCWD did not have debt at the time of this analysis.

Operating Reserve

Operating reserves are established to provide the utility with the ability to withstand short-term cash flow fluctuations. There can be a significant length of time between when a system provides a service and when a customer pays for that service. In addition, a system's cash flow can be affected by weather and seasonal demand patterns. A 45-day operating reserve is a frequently used industry norm. Because of potential delays in collecting payment, many utilities attempt to keep an amount of cash equal to at least 45 days or one-eighth of their annual cash O&M expenses in an operating reserve to mitigate potential cash flow problems. A five-year budget projection was completed assuming a 3 percent annual inflation rate. This analysis assumes operating reserves have not been funded and the one-eighth of their annual budget, funded over a five-year period, is included in the budget.

Emergency Reserve

In addition to operating reserves, emergency reserves are an important tool for financial sustainability. Emergency reserves are intended to help utilities deal with short-term emergencies which arise from time-to-time, such as main breaks or pump failures. The appropriate amount of emergency reserves will vary greatly with the size of the utilities and should depend on major infrastructure assets. An emergency reserve is intended to fund the immediate replacement or reconstruction of the system's single most critical asset, an asset whose failure will result in an immediate threat to public safety. Discussion with APCWD's general manager indicated the APCWD wastewater enterprise has established adequate reserve funds to manage emergencies.

Capital Improvement Plan Reserves

A capital improvement plan (CIP) reserve (also called a replacement or repair reserve) is intended to be used for replacing system assets that have become worn out or obsolete. Annual depreciation is frequently used to estimate the minimum level of funding for this capital reserve. It is important to understand that depreciation expense is an accounting concept for estimating the decline of an asset's useful life and does not represent the current replacement cost of that asset. As an example, a brand-new system with a construction cost of \$1 million and a service life of 100 years should, in theory, be setting aside \$10,000 per year to fully capitalize the replacement cost of the infrastructure as it wears out. Many smaller systems find this to be impossible because of the effect on rates which explains the large number of small systems that are falling into disrepair.

To initiate a CIP, a small water or wastewater system will start with a list of assets that includes the remaining service life and theoretical replacement costs in today's dollars. It then calculates the monthly and annual reserve that must be collected from each customer to fully capitalize the replacement cost of each asset. In reality, the assets will fail and be replaced gradually, but the replacement cost of wastewater system assets is often a shock to small systems that are struggling to keep rates reasonable.

One alternative method is to set aside an annual amount equal to one-to-two percent of the total original cost asset value of the utility's property. Larger systems often have sufficient non-operating revenue to fund these reserve levels without affecting rates, but smaller systems often do not, leaving them to fund their CRP reserves from rates alone. An alternative method is to set-aside sufficient reserve funds to cover 100 percent of the cost of replacing short-lived assets, such as pumps, electronic controls, vehicles, etc.

APCWD's asset list indicated the wastewater system had an original cost of \$3,804,679. The wastewater enterprise had \$110,592 in replacement reserves at the time of this analysis. In calculating future replacement costs and funding as indicated in the table below, it was determined annual funding of reserves in the amount of \$99,877 will be necessary.

Table 4: Funding Sources for Asset Replacement

Funding of Asset Replacements			
Cost from/To	Cash	Grant	Loan
\$0 - \$20,000	100%	0%	0%
\$20,001 - \$100,000	62%	0%	38%
\$100,001 - \$500,000	20%	25%	55%
\$500,001 - \$9,999,999	15%	50%	35%

6. Wastewater Rate Study - Budget & Calculation of Alternatives

Budget Five-Year Projection

APCWD wastewater enterprise actual costs and revenues for the fiscal years ended June 30, 2018, 2019, 2020 and 2021 were reviewed. Five-year cost projections were developed based on the 2022 approved budget with an assumed annual inflation rate of 3 percent. The five-year projections were reviewed with the general manager. The projected budgets include the assumptions that:

1. Operating Reserves equal to 12.5 percent of the annual budget will be funded over the five-year period.
2. Emergency Reserves in the amount of \$50,000 are currently available in the enterprises reserve funds and additional funding for emergencies is not necessary.
3. CIP Reserves will be funded at \$99,877 annually for the five-year period.

Table 5: Wastewater Budget Five-Year Projection

	FYE 6/30/2023 Projections	FYE 6/30/2024 Projections	FYE 6/30/2025 Projections	FYE 6/30/2026 Projections	FYE 6/30/2027 Projections
Operating Costs					
Salaries Wages Mgmt	\$ 36,758.10	\$ 37,860.85	\$ 38,996.67	\$ 40,166.57	\$ 41,371.57
Salaries Wages Office Reg	\$ 18,664.44	\$ 19,224.38	\$ 19,801.11	\$ 20,395.14	\$ 21,007.00
Salaries Wages Office Ot	\$ 403.71	\$ 415.82	\$ 428.29	\$ 441.14	\$ 454.38
Salaries Wages Field Reg	\$ 57,983.23	\$ 59,722.73	\$ 61,514.41	\$ 63,359.84	\$ 65,260.64
Salaries Wages Field Ot	\$ 7,286.42	\$ 7,505.01	\$ 7,730.16	\$ 7,962.06	\$ 8,200.93
Payroll Taxes	\$ 9,599.47	\$ 9,887.45	\$ 10,184.07	\$ 10,489.60	\$ 10,804.28
Benefits Retirement	\$ 10,441.48	\$ 10,754.73	\$ 11,077.37	\$ 11,409.69	\$ 11,751.98
Benefits Dental Insurance	\$ 2,571.89	\$ 2,649.05	\$ 2,728.52	\$ 2,810.37	\$ 2,894.68
Benefits Health Ins Active	\$ 25,921.89	\$ 26,699.54	\$ 27,500.53	\$ 28,325.55	\$ 29,175.31
Benefits Health Ins Retired	\$ 18,138.20	\$ 18,682.34	\$ 19,242.81	\$ 19,820.10	\$ 20,414.70
Benefits OPEB	\$ 7,725.00	\$ 7,956.75	\$ 8,195.45	\$ 8,441.32	\$ 8,694.56
Training	\$ 206.00	\$ 212.18	\$ 218.55	\$ 225.10	\$ 231.85
Director Fees	\$ 4,387.41	\$ 4,519.03	\$ 4,654.60	\$ 4,794.24	\$ 4,938.07
Director Training Conference	\$ 61.80	\$ 63.65	\$ 65.56	\$ 67.53	\$ 69.56
Board Misc	\$ 98.88	\$ 101.85	\$ 104.90	\$ 108.05	\$ 111.29
Prof Svcs Legal	\$ 927.00	\$ 954.81	\$ 983.45	\$ 1,012.96	\$ 1,043.35
Prof Svcs Accounting	\$ 865.20	\$ 891.16	\$ 917.89	\$ 945.43	\$ 973.79
Prof Svcs Engineering	\$ 206.00	\$ 212.18	\$ 218.55	\$ 225.10	\$ 231.85
Prof Svcs Audit	\$ 12,916.20	\$ 13,303.69	\$ 13,702.80	\$ 14,113.88	\$ 14,537.30
Prof Svcs Dues Membership Fees	\$ 2,894.30	\$ 2,981.13	\$ 3,070.56	\$ 3,162.68	\$ 3,257.56
Prof Svcs Bank Fees Charges	\$ 3,955.20	\$ 4,073.86	\$ 4,196.07	\$ 4,321.95	\$ 4,451.61
Prof Svcs Regulatory Fees	\$ 1,545.00	\$ 1,591.35	\$ 1,639.09	\$ 1,688.26	\$ 1,738.91
Prof Svcs Computer Network	\$ 247.20	\$ 254.62	\$ 262.25	\$ 270.12	\$ 278.23
Prof Svcs Misc	\$ 556.20	\$ 572.89	\$ 590.07	\$ 607.77	\$ 626.01
Office Supplies	\$ 463.50	\$ 477.41	\$ 491.73	\$ 506.48	\$ 521.67
Office Printing	\$ 494.40	\$ 509.23	\$ 524.51	\$ 540.24	\$ 556.45
Office Postage	\$ 3,914.00	\$ 4,031.42	\$ 4,152.36	\$ 4,276.93	\$ 4,405.24
Office Software Computer	\$ 123.60	\$ 127.31	\$ 131.13	\$ 135.06	\$ 139.11
Office Equipment/Furniture	\$ 123.60	\$ 127.31	\$ 131.13	\$ 135.06	\$ 139.11
Office Misc	\$ 61.80	\$ 63.65	\$ 65.56	\$ 67.53	\$ 69.56
Insurance Workers Comp	\$ 7,897.94	\$ 8,134.88	\$ 8,378.92	\$ 8,630.29	\$ 8,889.20
Insurance Property Liability Vehicle	\$ 11,107.52	\$ 11,440.75	\$ 11,783.97	\$ 12,137.49	\$ 12,501.61
Vehicle Maintenance	\$ 3,605.00	\$ 3,713.15	\$ 3,824.54	\$ 3,939.28	\$ 4,057.46
Vehicle Fuel	\$ 4,120.00	\$ 4,243.60	\$ 4,370.91	\$ 4,502.04	\$ 4,637.10
Utility Phone Internet	\$ 2,266.00	\$ 2,333.98	\$ 2,404.00	\$ 2,476.12	\$ 2,550.40
Utility Gas	\$ 2,101.20	\$ 2,164.24	\$ 2,229.16	\$ 2,296.04	\$ 2,364.92
Utility Electric Facilities	\$ 432.60	\$ 445.58	\$ 458.95	\$ 472.71	\$ 486.90
Utility Electricity - Pumping	\$ 6,592.00	\$ 6,789.76	\$ 6,993.45	\$ 7,203.26	\$ 7,419.35
Utility Security	\$ 383.16	\$ 394.65	\$ 406.49	\$ 418.69	\$ 431.25
Operations Routine Maint	\$ 515.00	\$ 530.45	\$ 546.36	\$ 562.75	\$ 579.64
Operations Repairs	\$ 515.00	\$ 530.45	\$ 546.36	\$ 562.75	\$ 579.64
Operations Inspecting/Testing	\$ 15,450.00	\$ 15,913.50	\$ 16,390.91	\$ 16,882.63	\$ 17,389.11
Operations Facilities	\$ 824.00	\$ 848.72	\$ 874.18	\$ 900.41	\$ 927.42
Operations Tools Equipment	\$ 1,030.00	\$ 1,060.90	\$ 1,092.73	\$ 1,125.51	\$ 1,159.27
Operations Uniforms	\$ 618.00	\$ 636.54	\$ 655.64	\$ 675.31	\$ 695.56
Operations Safety Equipment	\$ 927.00	\$ 954.81	\$ 983.45	\$ 1,012.96	\$ 1,043.35
Operations Treatment	\$ 185,400.00	\$ 190,962.00	\$ 196,690.86	\$ 202,591.59	\$ 208,669.33
Total Operating Costs	\$ 473,325.53	\$ 487,525.30	\$ 502,151.06	\$ 517,215.59	\$ 532,732.05
Reserves					
Operating Reserves	\$ 11,833.14	\$ 12,188.13	\$ 12,553.78	\$ 12,930.39	\$ 13,318.30
CIP Reserves	\$ 99,877.00	\$ 99,877.00	\$ 99,877.00	\$ 99,877.00	\$ 99,877.00
Total Reserve	\$ 111,710.14	\$ 112,065.13	\$ 112,430.78	\$ 112,807.39	\$ 113,195.30
Total Operations, Debt Service and Reserve Funding	\$ 585,035.67	\$ 599,590.43	\$ 614,581.83	\$ 630,022.98	\$ 645,927.36

Wastewater Rate Adjustment

In the wastewater enterprise rate adjustment, the EDU schedule is re-established pursuant to analysis of the general manager. The EDU rate is set at \$44.28 in the first year followed by annual increases of 8 percent. While this will recover the budgeted costs, the affordability index is low, which could prohibit the ability to obtain low interest loans and/or grants for system replacements and improvements. Revenue will not be sufficient to fully fund replacement reserves over the first three years. However, the shortages will be recovered in the final two years. Over the five-year period, net operating revenue will exceed operating costs in the amount of \$5,023.

Table 6: Wastewater Revenue against Projected Costs after Rate Adjustment

Projected Costs Against Rate Adjustment	Total EDUs Billed	EDU Rate	Average Monthly Base Revenue	Average Annual Base Revenue		
Total EDUs	988.1	\$ 44.28	\$ 43,753.07	\$ 525,036.82		
Total Base Revenue	988.1		\$ 43,753.07	\$ 525,036.82		
Budget Assuming 3% Inflation per year	6/30/2023	6/30/2024	6/30/2025	6/30/2026	6/30/2027	5 Year Total
Total Monthly Required Reserves Fund	\$ 9,309	\$ 9,309	\$ 9,309	\$ 9,309	\$ 9,309	
Total yearly required reserve fund	\$ 111,710	\$ 112,065	\$ 112,431	\$ 112,807	\$ 113,195	\$ 562,209
Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operating Budget	\$ 473,326	\$ 487,525	\$ 502,151	\$ 517,216	\$ 532,732	\$ 2,512,950
Total Operating Budget	\$ 585,036	\$ 599,590	\$ 614,582	\$ 630,023	\$ 645,927	\$ 3,075,158
	6/30/2023	6/30/2024 Assumes 8% Increase over Prior Year	6/30/2025 Assumes 8% Increase over Prior Year	6/30/2026 Assumes 8% Increase over Prior Year	6/30/2027 Assumes 8% Increase over Prior Year	5 Year Total
Estimated Annual Revenue From Base Rate	\$ 525,037	\$ 567,040	\$ 612,403	\$ 661,395	\$ 714,307	\$ 3,080,181
Net Operating Revenue Over/(under) Operating Costs	\$ (59,999)	\$ (32,551)	\$ (2,179)	\$ 31,372	\$ 68,379	\$ 5,023

Table 7: Wastewater Rate Adjustment Five-Year Rate Schedule

APCWD Wastewater Rate Five Year Schedule Per EDU					
Current	Year 1	Year 2	Year 3	Year 4	Year 5
\$41.00	\$44.28	\$47.27	\$50.46	\$53.87	\$57.50

7. Conclusions and Recommendations

Key points to remember with any rate adjustment:

- Successful utilities are those that strive to be transparent. In day-to-day operations, APCWD should strive to promote its services (both the highlights and the low points), and continuously educate residents on why it is necessary to raise and adjust rates.
- The ability of the recommended rate structure to generate adequate revenue will depend on maintaining a vigorous collection and shut-off policy to keep delinquent accounts at a minimum.
- In order to achieve and maintain long-term viability, APCWD should review its rates annually, or no less than a minimum of every two years.
- APCWD should implement the first year rate adjustment on July 1, 2022 and subsequent annual adjustments on July 1 to provide sufficient revenues for funding future operations and to adequately fund reserves.
- APCWD should establish policies for reserve accounts as recommended above.
- APCWD should designate reserves on its financial statements.
- APCWD should maintain and report balance sheet activities according to individual enterprise.
- CIP reserves should be moved to and maintained in the highest interest bearing accounts available to offset inflation unless the cost of doing so would be more than the interest earned on the account.

8. Proposition 218

California approved Proposition 218 in 1996 requiring agencies to adopt property fees and charges in accordance with a defined public process found in article XIII D or by associated court decision. Water and wastewater rates are user fees under the definition and must meet the following requirements:

- Revenues derived from the fee or charge must not exceed the funds required to provide the property-related service.
- Revenue from the fee or charge must not be used for any purpose other than that for which the fee or charge is imposed.
- No fee or charge may be imposed for general governmental services, such as police, fire, ambulance, or libraries, where the service is available to the public in substantially the same manner as it is to property owners.
- The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership must not exceed the proportional cost of the service attributable to the parcel.
- The fee or charge may not be imposed for service, unless the service is actually used by, or immediately available to, the owner of the property in question.

Written notice should be given to both the record owners and customers within the area subject to the fee or charge. The notice shall include the following:

- The formula or schedule of charges by which the property owner or customer can easily calculate their own potential charge.
- The basis upon which the amount of the proposed fee or charge is to be imposed on each parcel. An explanation of the costs which the proposed fee will cover and how the costs are allocated among property owners.
- Date, time, and location of a public hearing on the rate adjustment. The public hearing must occur 45 or more days after the mailing of the notice.

California's Proposition 218 provides that a customer of APCWD or owner of record of a parcel or parcels subject to the proposed rate increases may submit a protest against any or all of the proposed rate increases by filing a written protest with APCWD at or before the time the public hearing has concluded. Only one protest per parcel is counted. While community members may be offered the opportunity to speak at the hearing, only written protests will be counted. If written protests are filed by a majority of the affected parcels, the proposed rate increases will not be imposed.