



Water and Wastewater Financial Analysis and Rate Study

For

City of Avenal

April 19, 2022

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Principal

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I. Purpose

The purpose of this cost-of-service rate study is to evaluate the water and wastewater (sewer) enterprise funds to reset rates such that revenue is adequate for safe and reliable operation into the future. The approach to setting rates is outlined in this study. This work complies with the requirements of California's Proposition 218 when raising water and sewer rates. In general, this means:

- A rate study is conducted to support the revenue needed for each enterprise fund.
- Each customer group pays its proportionate share of costs.
- Revenue from rates from each enterprise fund is used only for that fund's purposes.
- Customers are notified in writing of the rate increases, the reasons why, information about the rate hearing that will be held after 45 days, and that they may protest in writing.
- If more than 50 percent of customers (parcel owners) protest, the increase may not happen.

II. Approach to Setting Rates

This report includes two rate studies, one for water and another for wastewater (sewer). Each enterprise fund is handled separately; however, they are both conducted in the following sequential steps.

1. Audited financials are reviewed to observe history of revenues, expenses, and changing fund balances.
2. Accounting reports are reviewed to bridge the time frame between the end of the last audit and into the current fiscal year. The budget is reviewed for the current fiscal year and next fiscal year, when available.
3. Operating expense projections are developed for the next five years.
4. Billing data is related for all billing cycles, including all customers from the most recent complete fiscal year. Billing data is reconciled to audited financial values and accounting reports, as appropriate.
5. Billing data is divided into appropriate customer classes to determine revenue collected from each customer class.
6. Cost of service modeling is done to assign overall costs between defined customer classes, based on system costs to serve each customer class.

7. Rate models are constructed for each enterprise to achieve the revenues needed for FYE 23 based on the revenue and expense workbooks, including debt service associated with bond funding. The models demonstrate that established rates achieve the revenue needed for each customer class.

III. WATER RATE STUDY

IV. Water System Capital Improvements

Many aspects of the water system have aged and needs repairs or replacement. Over the past year, the city has been able to cover some project costs by utilizing funding from the federal government through The American Rescue Plan Act of 2021 (ARPA). However, those funds are not enough for ongoing improvement needs of the water system. Two example projects are as follows. The State Water Resource Control Board has notified the city that it is currently in violation of the maximum allowable limit for Total Trihalomethanes (TTHM); therefore, the city must modify and improve its water treatment process to comply. Secondly, the Supervisory Control and Data Acquisition (SCADA) system at the water plant is outdated to the point where replacement parts are not available. The SCADA system must be updated in the next few years. Each of these project will be in the \$1 million to \$3 million range and must have funding available. From this rate study, revenue is planned over the five-year rate-setting period to allow for \$2.6 million in water project expenditures.

V. USBR Water Supply Contract

Avenal receives its entire water supply from the Central Valley Project operated by the United States Bureau of Reclamation (USBR). The “Water Infrastructure Improvement for the Nation Act of 2016” (WIIN Act) directed USBR to convert water service contracts to repayment contracts upon a contractors request. The WIIN Act allowed the City to enter a new agreement with USBR into “perpetuity,” meaning the new agreement has no termination date. However, one requirement for the new agreement was that the City pay USBR the full remaining balance of “Allocated Contractor Construction Costs” associated with the present USBR cost structure. The payment made in 2021 was \$407,597. The 2021 USBR rate structure included a cost component of \$34.19 per acre-foot to pay for the past construction costs. The new agreement has the same rates as present, but without the construction cost component. Beyond the annual cash flow savings due to the removal of the construction cost component, the WIIN agreement benefits the City by guaranteeing a long-term supply of water from USBR. The stability of this agreement also helps with the acquisition of future debt funding, if needed, for the water system.

VI. Water Revenue, Expense, and Fund Balance

Water revenue and expense historical data is based on a combination of audited financials for FYE 19 and on unaudited trail balance data thereafter. (The city is still in the process of

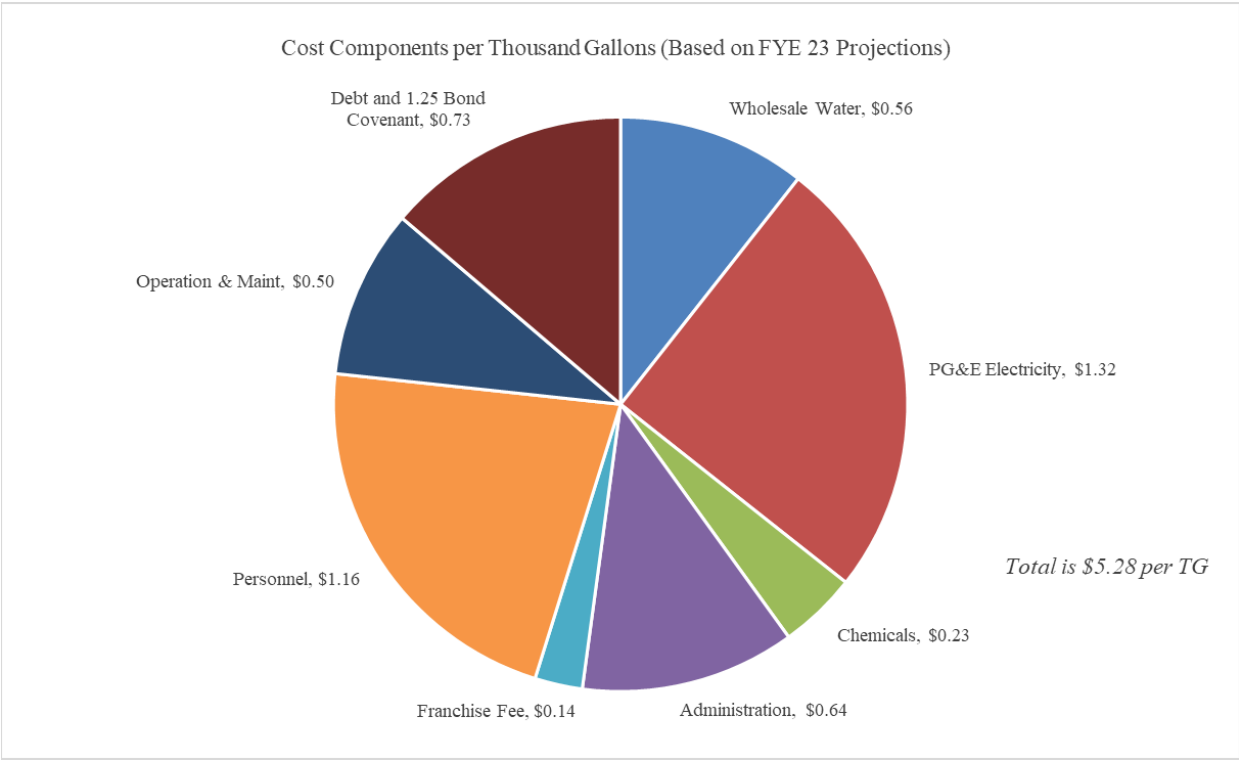
completing its annual financial audits.) Water sale volumes over the past several years have been fairly constant. Water revenue has increased slightly each year because of the two percent annual increases beginning FYE 18 from the previous water and sewer rate study completed in November 2017. Projected volumes of wholesale water are held constant at 2,624 acre-feet (855 million gallons). Corresponding sales are based on 706 million gallons, as result of the present unbilled amount of 21 percent. See the Revenue section of Attachment A.

Water expenses have been increasing in various categories as shown in the expenses section of Attachment A. For the past few years, it appears the bond covenant has not been met, which requires Net Income Available for Debt Service to exceed debt service by a minimum factor of 1.25. Based on preliminary data for FYE 22, the ratio will be 0.52, which implies that net income was inadequate to cover debt service and therefore fund balance cash is used to cover debt. Consequently, a rate increase is necessary to meet the existing bond covenant before an additional added rate increase increment to cover projected increased operating costs.

Projected expenses through FYE 27 include inflationary factors shown at the right side of the table in Attachment A. Most inflationary factors are three percent; however, personnel costs are shown at five percent based on increases in retirement funding, and electricity is at 15 percent, based on recent press releases from PG&E. The pie chart at the top of the next page shows the cost breakdown for a thousand gallons of water based on FYE 23 costs. The significant component is PG&E electricity because of the cost to pump water over the hill to Avenal from the water treatment plant. Electricity is the single largest cost component. There is no cost component shown for projects in the expenses section because projects will be funded from excess revenue resultant of debt service coverage and from excess fund balance. See the bottom section of the table regarding planned project funding. Monthly detail of projected USBR water supply costs is shown in Attachment B.

The Series 2005 Bond Debt Service schedule is shown at the bottom of Attachment A. The original principal amount of these bonds was \$9,660,000. Remaining debt service payments average \$302,000 per year through FYE 37. The required debt service coverage ratio is for net revenue available for debt service to be 1.25 times the annual debt service payment.

Revenue beginning in FYE 23 is increased to achieve healthy debt service coverage over the planning period. The result is an initial 18 percent increase to be effective July 1, 2022. This is necessary to achieve the required 1.25 debt service coverage ratio for the first planning year of FYE 23. For each of the next four years, subsequent eight percent increases are needed to cover the accelerated costs of inflation. These increases result in achieving debt service coverage ratios in excess of 2.00, safely above the requirement of 1.25, which also provide excess cash that will be needed for projects.



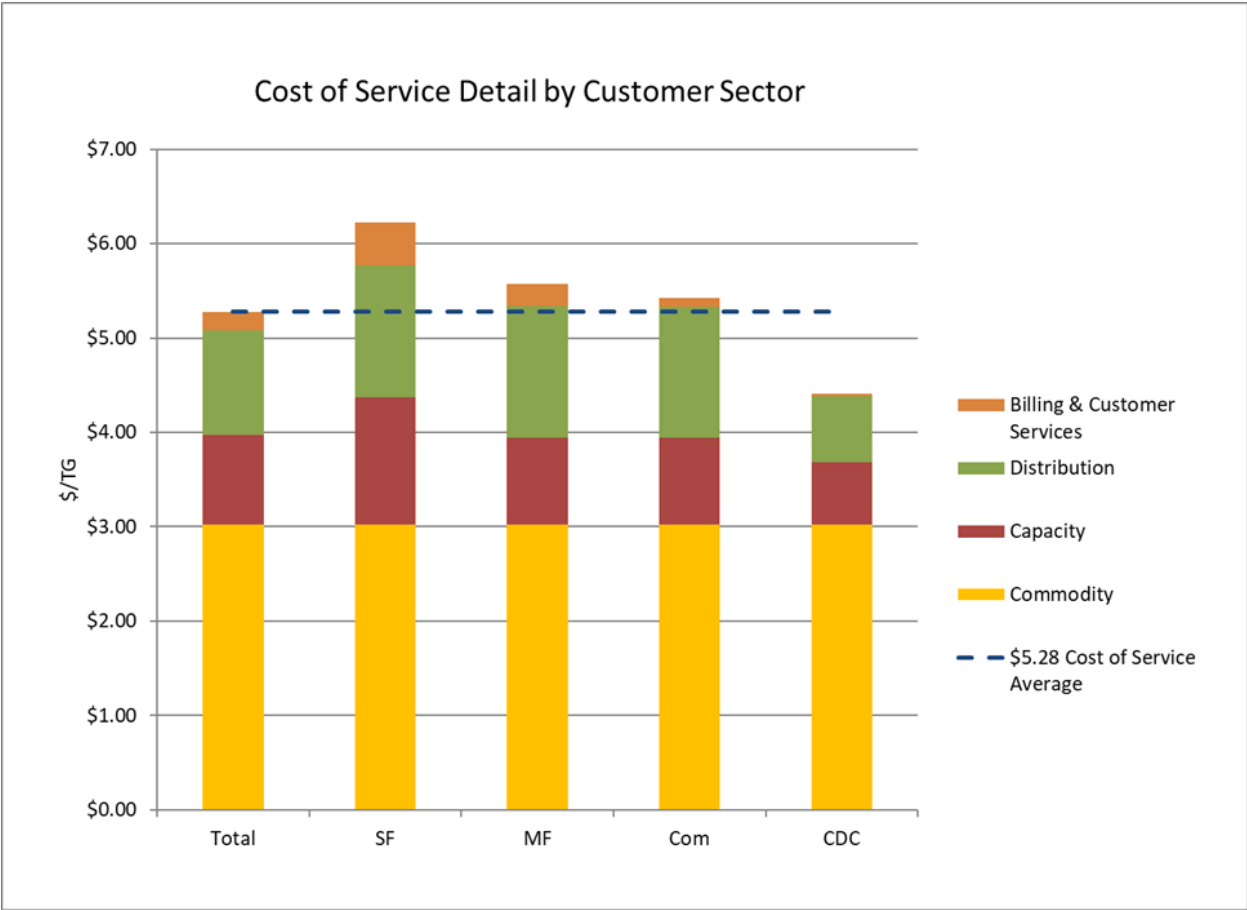
The present water enterprise fund cash balance is estimated to be \$2.7 million, as shown along the bottom line of the table. Projections of the fund balance allow for project spending of \$500,000 per year, leaving the fund balance slightly lower at \$2.1 million at the end of five years. However, \$2.1 million is approximately six months of revenue and should be adequate for the cash reserve.

VII. Existing Water Rates

The existing water rate structure for the city was not altered in the 2017 rate study. The 2017 study increased overall rates two percent per year over that five-year planning period. Presently, all customers pay the same volumetric rate of \$2.02 per Hundred Cubic Feet (HCF), which is \$2.70 per Thousand Gallons (TG). The fixed monthly cost increases are based on meter size except for multi-family customers who pay the standard cost of \$26.29 for a 5/8-inch meter, multiplied by the number of units in each building supplied by a given meter. If a dedicated landscape meter also serves a multi-family unit, that fixed monthly charge is added. Avenal State Prison pays the standard rate for each of its two 10-inch meters.

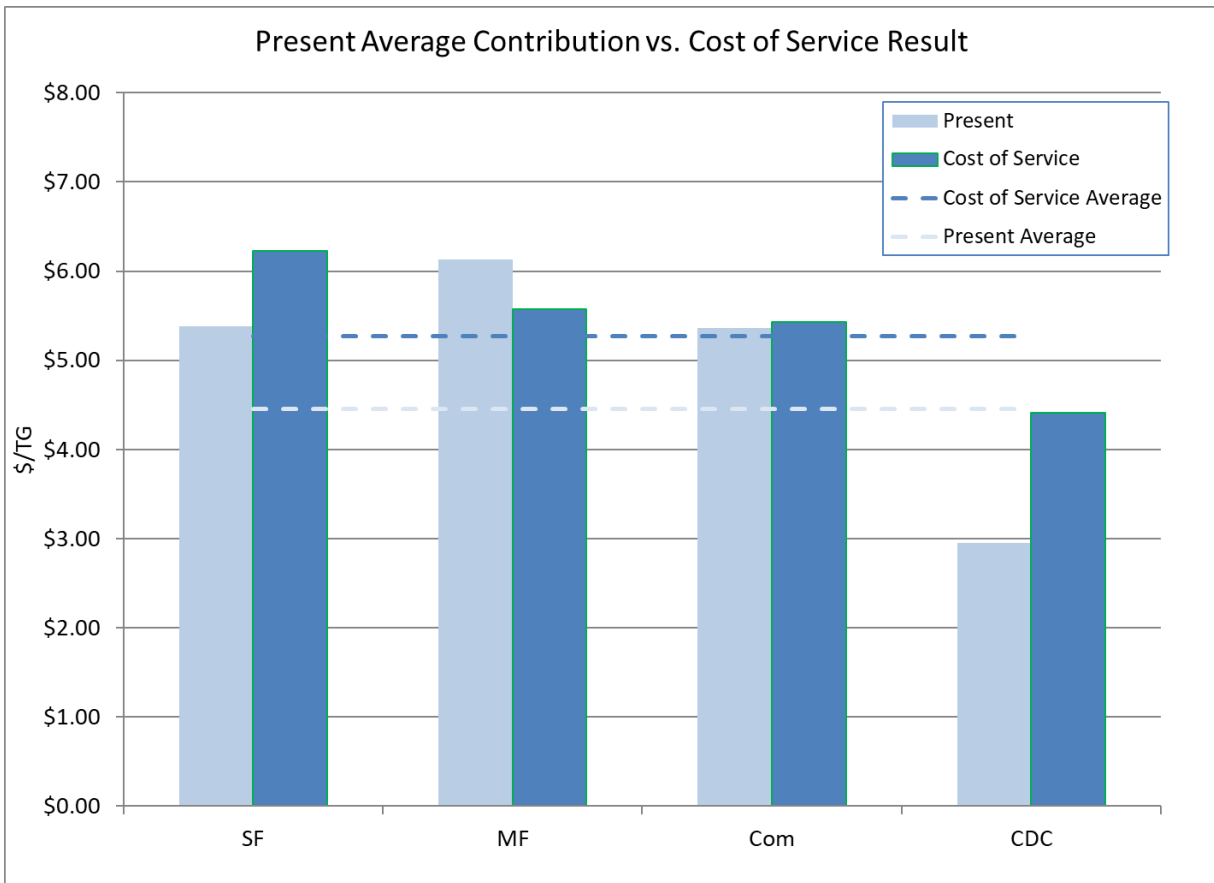
VIII. Cost-of-Service Analysis

Proposed water rates are adjusted to match the cost-of-service for four newly established customer classes appropriate to Avenal’s small size. Customer classes are Single-Family, Multi-Family, Commercial, and Avenal State Prison (CDC). The bar chart below shows the cost-of-service result for each customer class compared to the projected average cost of \$5.28 per TG for the FYE 23 planning year.



The cost-of-service analysis was conducted based on American Water Works Association Manual of Water Supply Practices “M1.” Defined cost components for Avenal are commodity, capacity, distribution, and billing & customers services. Cost allocation detail is shown in Attachments C, D, and E. Single-family customers have the highest average cost of service caused by the higher capacity component from summer peaking and the highest customer services cost. CDC has the lowest average cost because of a lower peaking charge, lower distribution costs, and lower customer services costs. The CDC cost-of-service amount is significantly below the average cost for the overall system, and all below other customer classes.

The bar chart below shows the present average contribution per TG from each customer class compared to the updated cost per TG.



Most noticeable is that the present average contribution from CDC is significantly below both the system average and below the updated cost of service average for CDC. The present CDC contribution is disproportionately low because the proportion of fixed monthly contribution from CDC is much lower than other customer classes. Specifically, CDC moves a very large volume of water through its meters compared to the fixed monthly cost for the meters, which is just nine percent of the total. Whereas other customer classes pay a much higher proportion for the fixed cost. For example, residential customers pay 50 percent on average. This creates an inequity as a result of all customers paying the same volumetric price.

Second in significance is that the present contribution from multi-family is higher than the new cost-of-service average. This is because each unit in a multi-family dwelling is presently charged the fixed monthly rate of \$26.29 for a 5/8-inch meter. The result is a contribution that is too high because water usage for a typical apartment or condominium is less than water usage for a typical home. This is especially true when a complex has separate landscape meters.

Third, though not illustrated in the bar chart, is that newer single-family homes are required to have one-inch meters to support fire systems therefore they are charged the cost for a one-inch meter, which is presently \$65.73, or 2.5 times the cost for a 5/8-inch meter. The result is that customers with fire systems are paying significantly more for water service only because they have a fire system that will likely not be used. Additionally, if it were used, water flow through

the fire system could potentially place less demand on the water system because higher flow through hydrants may not be needed if the fire system extinguishes the fire.

IX. Proposed Water Rates

The combination of rate modifications to the four customer classes in the first year is an overall revenue increase of 18 percent, consistent with revenue requirement. Rate modifications in the first year vary based on output from the cost-of-service model. Rate increases in the second through fifth year are applied evenly to all customers based on the consecutive eight percent increases.

The approach to rate setting was to hold the volumetric rate constant for all customer classes, then adjust the fixed monthly costs to achieve equity across the customer classes. The proposed increase in the volumetric rate is 22 percent from \$2.70 per TG to \$3.30 per TG.

The monthly fixed cost for single-family customers is increased on average 6.5%; however, this includes a reduction for approximately 100 single-family customers paying the higher rate for one-inch meters. Those customers will see a significant reduction in their fixed monthly cost. The overall increase to the single-family group is 14 percent, lower than the 18 percent revenue requirement increase because single-family and other groups were previously subsidizing CDC.

The monthly fixed cost for multi-family is reduced 32 percent to achieve the cost-of-service amount for multi-family. This means that whereas single-family homes will pay \$28.00 per month in fixed costs, multi-family will pay a lower amount of \$18.00 for each unit in a multi-family complex.

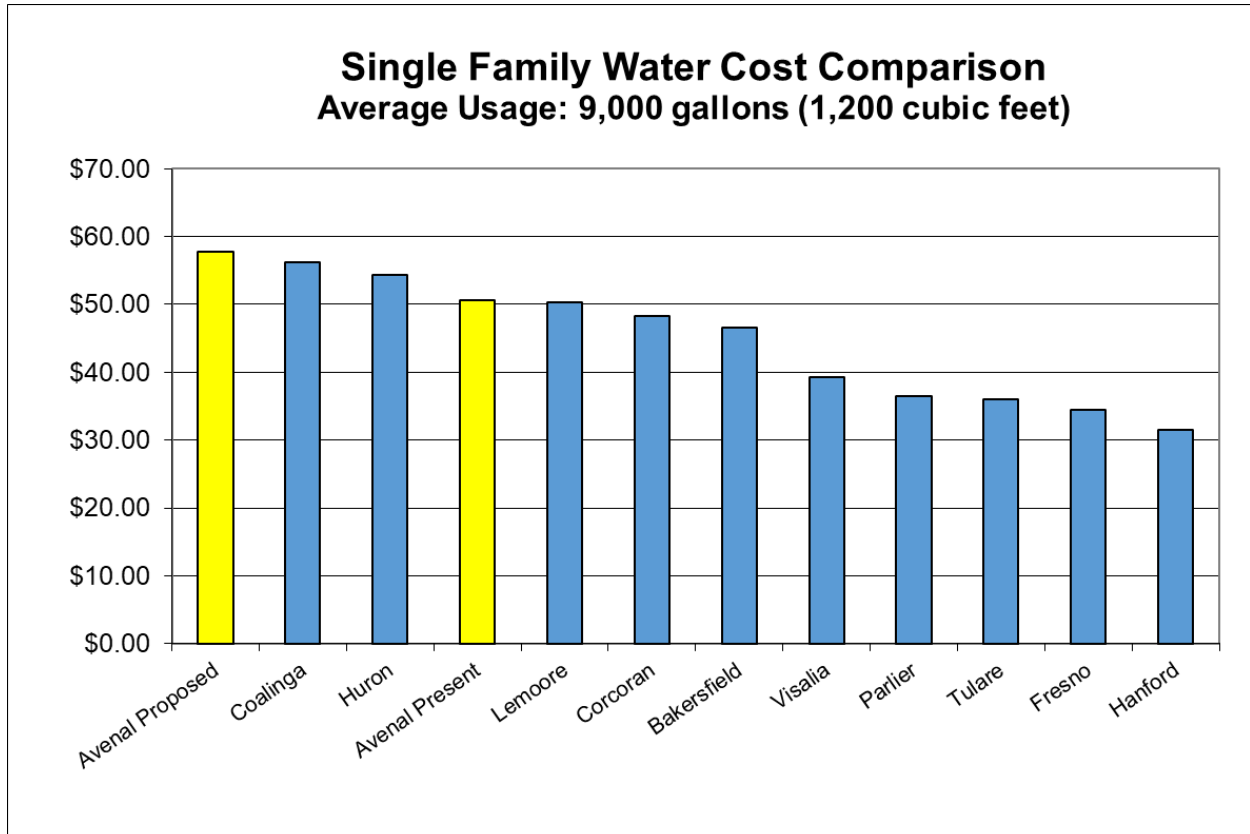
For commercial customers, which includes commercial, schools, city accounts, and irrigation (except CDC), the fixed monthly costs for increasing meter sizes are unchanged. The relatively lower revenue increases needed from these customers is achieved through the increased volumetric rate alone. This is favorable to water conservation, as customers that use less water will see the same fixed monthly cost but will pay more only for water volume.

Finally, the most significant change is for CDC. Whereas the volumetric rate for CDC (and all customers is increased 22 percent, the fixed monthly rate must be increased dramatically to accomplish the cost-of-service result. Presently, CDC pays for two ten-inch meters for a total of \$6,310 per month. The proposed fixed monthly cost for CDC is \$27,763 per month. This amount, combined with the increased volumetric rate results in an average contribution of \$4.41 per TG, which is still significantly below the system average cost of \$5.28 per TG.

The model used to allocate fixed and volumetric costs between customer classes is shown in Attachment F. A key component of this rate setting model is it first generates existing revenue based on the current rate structure, current customer count by meter size, and volumes sold over the FYE 22 baseline year. This confirms the model is valid to generate accurate revenue with modified rates.

The rate table showing present and proposed rates is shown in Attachment G. Proposed increases for the second through fifth planning year are relatively high at eight percent per year. These increases are driven primarily by PG&E press releases, supported by recent regulatory filings, that overall electricity costs will increase as much as 22 percent per year for five years. The projected electricity increases in this rate study are lower at 15 percent, more appropriate to the industrial rate schedules serving the water plant. The recommendation is to accept the subsequent eight percent increases to cover increasing PG&E and other inflationary increases. However, city council may reduce or waive entirely any subsequent increase by a simple majority vote. It is recommended that annual financial reviews be conducted of the water enterprise, focused mainly on the debt service coverage covenant requirement being met. If PG&E costs for Avenal do not increase at an average of 15 percent per year, and other water system costs do not increase as modeled, city council may potentially reduce the increases. A second significant variable to expense forecasts is that audited financial statements may reveal changes in cost from the unaudited data (FYE 20, 21, and 22) that may impact the need for rate adjustments.

Finally, the cost comparison on the next page shows Avenal on the upper end of cost compared to nearby communities. The first reason is that Avenal purchases more expensive water from USBR, like Coalinga and Huron, whereas the other communities benefit from well water. The second reason for Avenal is the high cost of pumping water over the hill from the water treatment plant to the city.



X. WASTEWATER (SEWER) RATE STUDY

XI. Sewer System Capital Projects

Capital improvement needs for the sewer system are minimal compared to the water system. Some projects have been completed over the past year using ARPA funds. The most significant planned project at the wastewater treatment plant is installation of photovoltaic electricity generation. This project is funded by grant money and some of the equipment, including the panels, are already on site. Completion of the solar project is important because of the large projected increases in PG&E electricity costs. Other improvement projects over the next five years are minor and do not require significant capital planning.

XII. Sewer Revenue, Expense, and Fund Balance

As with the water rate study, sewer revenue and expense historical data is based on a combination of audited financials for FYE 19 and on unaudited trail balance data thereafter. Sewer revenue over the past five years has been increasing at approximately two percent per year, based on the 2017 rate study increases. Monthly revenue is constant because all customers are billed a monthly fixed cost. Detail of sewer revenues and expenses can be found in Attachment H.

Again, similar to the water rate study, electricity costs are escalated at 15 percent per year. However, in the case of the sewer enterprise, the solar project is expected to offset 85 percent of future electric costs, beginning for FY 22/23. This annual offset is shown as a negative expense in the expense section of the table. Essentially, the higher PG&E electricity costs go, the more valuable solar becomes. Installation of the solar project allows for lower revenue increases going forward. (If the solar project is not installed and PG&E costs escalate at the 15 percent value used, the sewer enterprise fund is projected to consume \$1.4 million of fund balance for additional PG&E electric costs not generated by solar.)

The Avenal sewer enterprise fund has no long-term debt, therefore no debt service covenant for a coverage ratio. The present fund balance is healthy at approximately \$3 million, which is 1.8 years of revenue based on present rates. Therefore, the basis for setting the ongoing overall revenue requirement is maintaining a responsible fund balance that will be needed eventually for capital improvement to aging infrastructure.

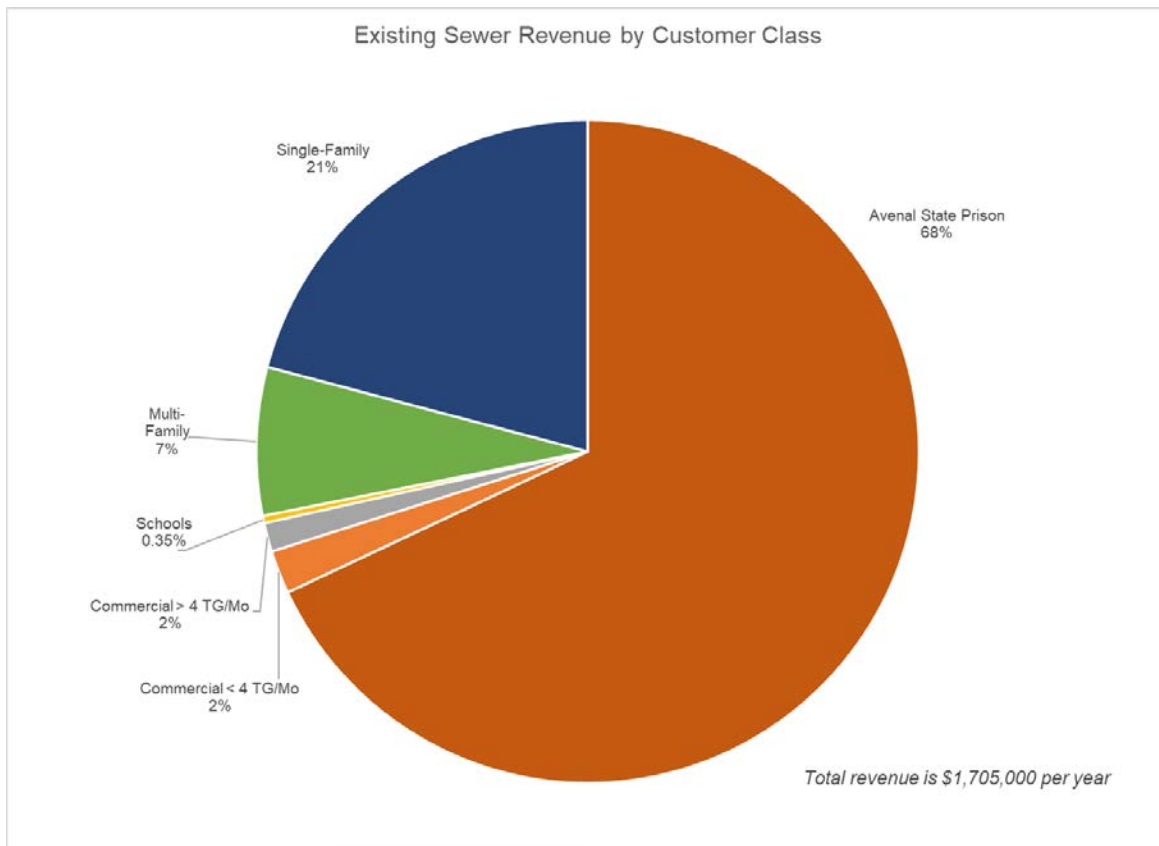
The recommended increases for sewer revenue over the five-year planning period are three percent per year, which are needed to keep up with inflation. If no significant projects are completed over the planning period, the fund balance is projected to be approximately the same at the end of five years. If projects happen, the fund can afford up to \$1 million in project expenditures and still allow the remaining fund balance to cover a year's revenue.

XIII. Existing Sewer Rates

Like water rates, the existing sewer rate structure for the city was not altered in the 2017 rate study. The 2017 study only increased overall rates two percent per year over the five-year planning period. As Avenal is a small community, the sewer rate structure is simplified for ease of administration. All customers are on fixed monthly rates without ongoing measurement of volume or consideration of concentration of discharge.

The rate for single-family residential is presently \$15.47 per month, which is the lowest of all surrounding communities. Multi-family residential pays \$15.47 times the number off housing units in each complex. All other customers except schools and Avenal State Prison pay \$50.18 per month.

The two elementary schools, one middle school, and one high school pay \$0.20 per student per month. A review of the student count shows the current student count to be close to the implied count based on \$0.20 per student. However, the total contribution from the four schools is presently only \$487.60 per month because \$0.20 per student is low for the costs associated with the schools



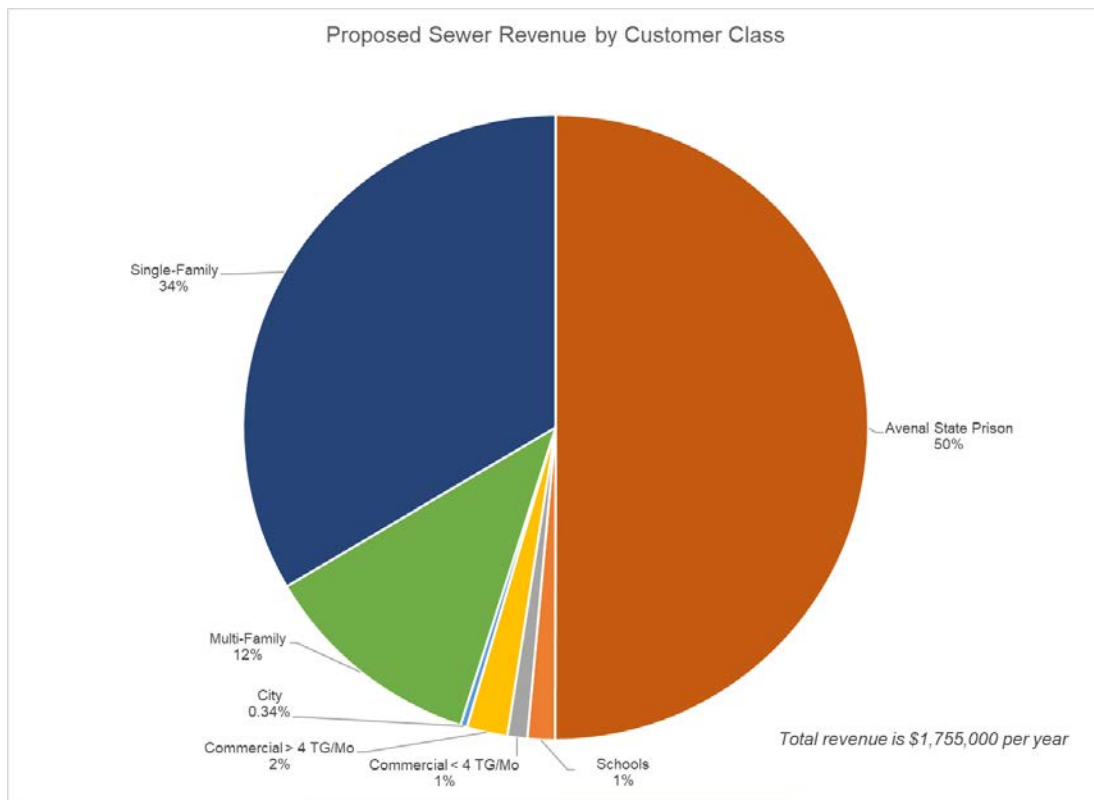
Avenal State Prison pays a fixed monthly rate of \$96,608.22 and is the largest customer on the system. Influent from the prison is 50 percent of total influent into the wastewater treatment plant. This is significant because present revenue received from the prison represents 68

percent of overall revenue to operate the sewer system. Accordingly, whereas the prison was subsidized *by* other customers in the water enterprise, the prison *is subsidizing* other customers in the wastewater enterprise.

All commercial and other customers pay \$50.18 per month, regardless of size. In a small community, simplified rates are acceptable, but the city has received complaints from the smallest commercial customers that the rate is too high, especially where a small business may have only a bathroom and sink. The commercial rate of \$50.18, at 3.2 times the residential rate, is relatively high for a very small customer.

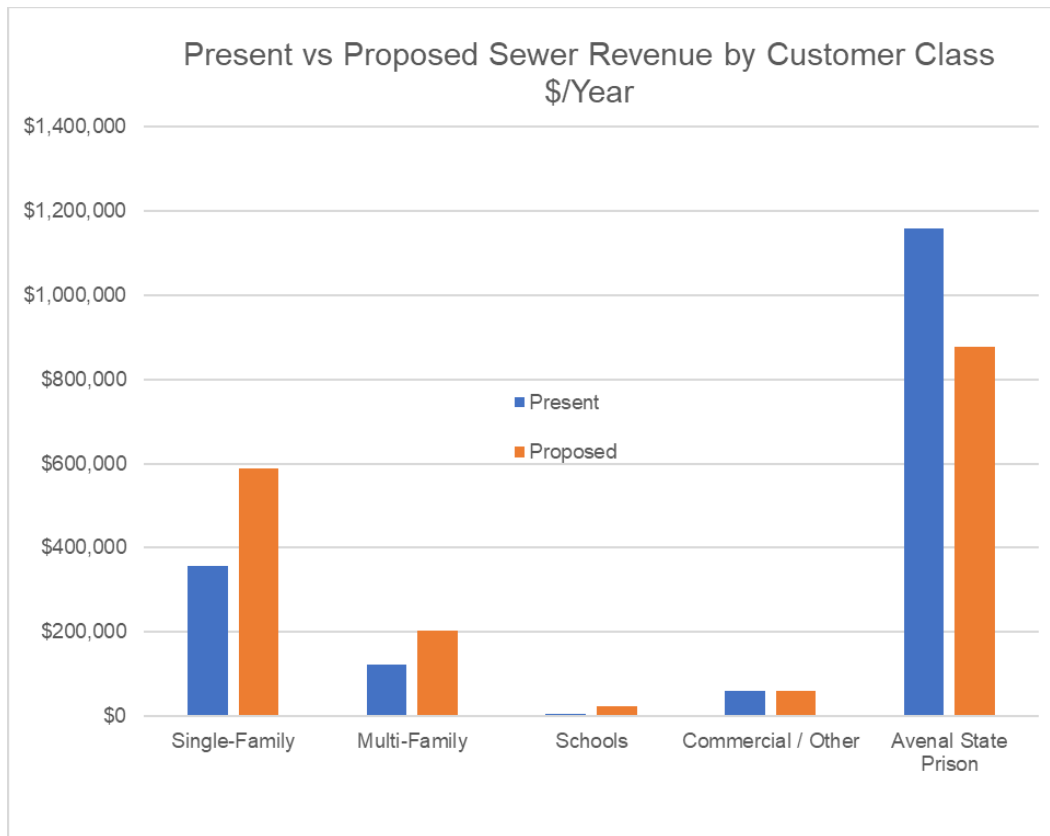
XIV. Cost-of-Service Analysis and Proposed Rates

A simplified cost of service approach for the sewer system is to first assign 50 percent of projected system costs to Avenal State Prison, consistent with the prison contributing 50 percent of influent into the treatment plant. For the prison, this is a significant decrease from the previous contribution.



The cost to serve the schools increases from the rate from \$0.20 per student per month to \$0.70 for elementary, \$0.91 for middle, and \$1.05 for high school. Though the increase per student for the schools is significant, the overall change in revenue contribution to the system is small because there are only four schools. The small contribution of the schools (and commercial too) is shown in the bar chart below. The cost allocation to the schools increases from the

original small amount of \$463 per month to a more proportionate \$2,085 per month. The detailed analysis is in Attachment I.



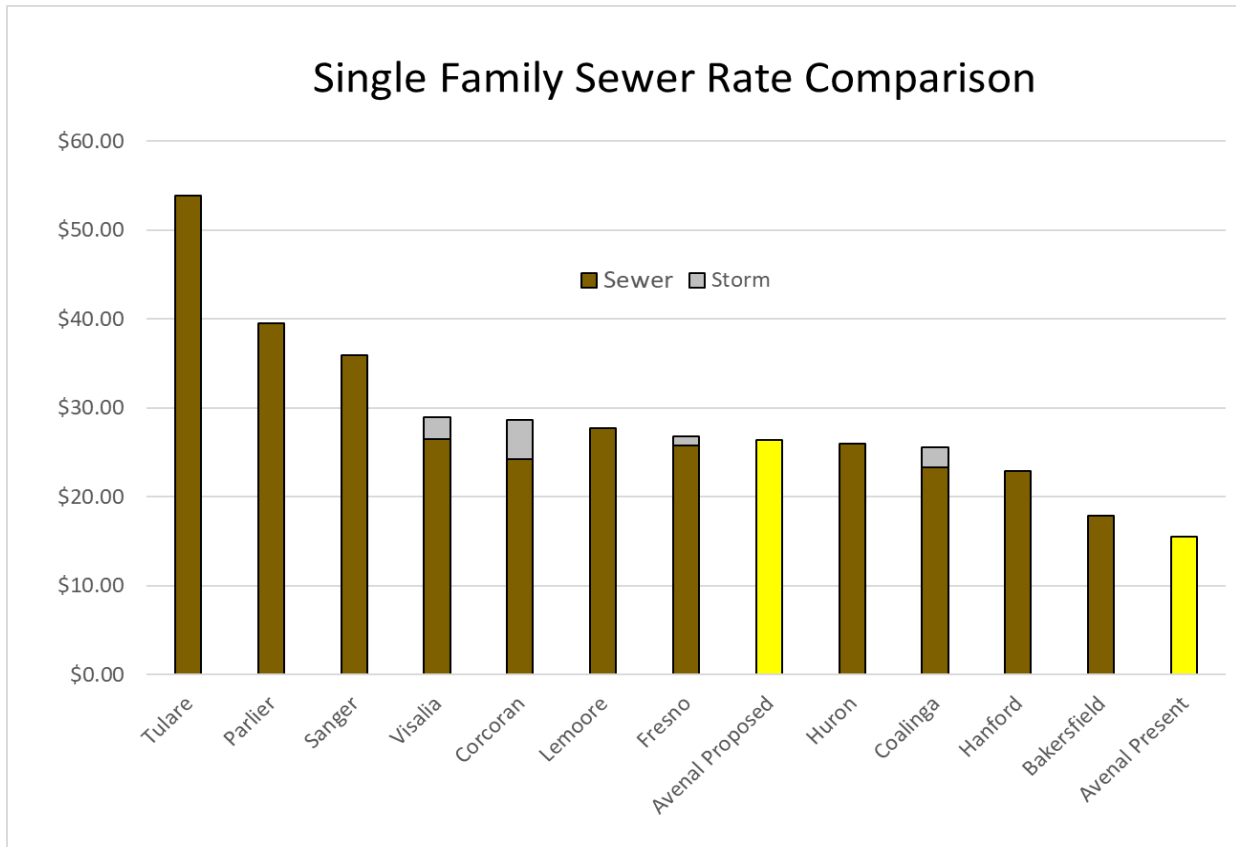
The remaining cost is allocated between commercial and residential customers. The multiplier for commercial customers is reduced from 3.2 times the residential rate to 3.0. Further, the model is set such that the 40 commercial customers using water less than 4,000 gallons per month average pay the same as the new residential rate. This way small commercial customers using the approximate winter baseline water usage as a home pay the same as a home. The remaining 60 commercial customers use more water than 4,000 gallons per month and pay the higher commercial rate.

The new single-family baseline rate is determined to be \$25.60 per month, and the new commercial rate is \$76.80. These combined with the contribution from the prison and the schools provided the projected \$1,755,000 needed for the FYE 23 planning year. The rate setting model is shown in Attachment J and the proposed rate table in Attachment K. As with the water model, the sewer model first calculates existing revenue based on customer counts and existing rates for the FYE 22 baseline year. This confirms the validity of the model for rate changed and future revenue projections.

Sewer rates are significantly modified in the first year, similar to water. However, the overall sewer revenue increases needed are much less than water because sewer has no debt service coverage requirement and sewer will have the benefit of solar power. After the first year, the

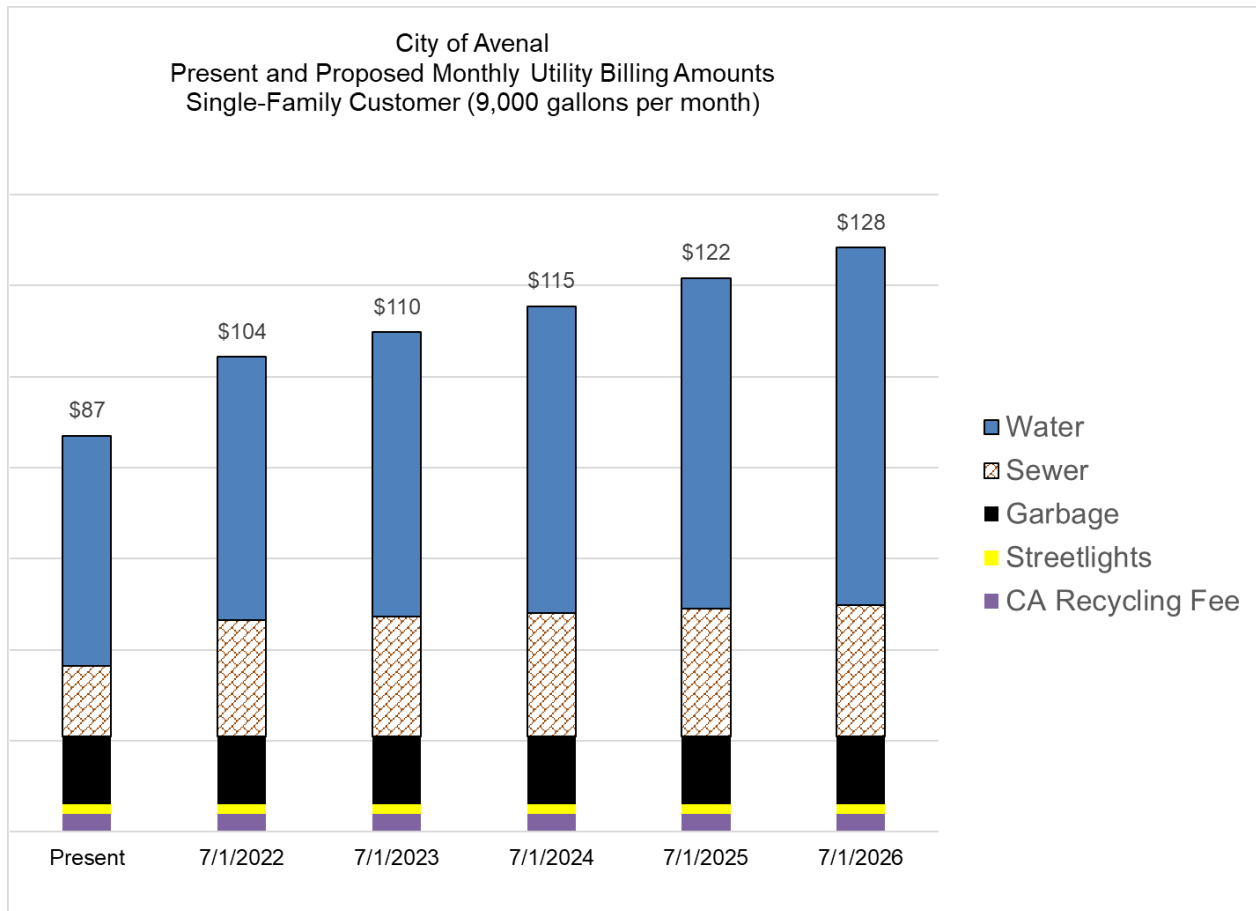
three percent increases to sewer rates will be applied evenly to each customer group. Finally, the financial status of the sewer enterprise should be monitored closely and especially checked as audited financial data become available for FYE 20 and forward. As with water, the city council may decide to suspend rate increases, however, this is less likely for sewer with only three present ongoing increases.

Though the single-family baseline rate is increased substantially from \$15.47 to \$25.60, the comparison analysis below shows Avenal's proposed rates to be consistent with surrounding communities.



XV. CONCLUSION: Effect on a Typical Residential Customer

Increased operating costs necessitate the need for water and sewer rate increases. For the water enterprise, the increases are significant because existing revenue is inadequate to cover existing expenses and does not meet the debt service covenant of the 2005 bonds. Further, electricity costs are expected to increase substantially over the next several years. For the sewer enterprise, the proposed increases are less substantial, but still needed to keep up with inflation. Even so, the increase for single-family customers is substantial in the first year primarily to cover the subsidy previously provided by the prison. The bar chart below shows the impact on a median residential customer over the five-year planning period, including other utilities billed by the city of Avenal.



XVI. ATTACHMENTS

A. Water Revenue, Expense, and Fund Balance Table (Historical and Projected)

AVENAL WATER ENTERPRISE FUND									
For the Fiscal Years Ending June 30,									
	2019	2020	2021	2022	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5
	<u>Audited</u>	<u>Unaudited</u>	<u>Unaudited</u>	<u>Projected</u>	<u>Projected</u>	<u>Projected</u>	<u>Projected</u>	<u>Projected</u>	<u>Projected</u>
				<i>Increases:</i>	18.0%	8%	8%	8%	8%
<i>USBR Water Purchases (MG)</i>	830	857	855	855	855				
Total Operating Revenue	\$2,776,446	\$2,904,000	\$3,086,000	\$3,148,000	\$3,725,000	\$4,023,000	\$4,345,000	\$4,693,000	\$5,068,000
Operation & Maintenance Expenses:									
Personnel	990,527	796,044	739,543	777,000	816,000	857,000	900,000	945,000	900,000
Operations	233,693	248,861	258,821	267,000	275,000	283,000	291,000	300,000	291,000
Chemicals	138,207	143,518	153,917	159,000	164,000	169,000	174,000	179,000	184,000
Professional Services	75,101	42,750	75,853	78,000	80,000	82,000	84,000	87,000	90,000
Franchise	84,172	87,506	93,789	97,000	100,000	103,000	106,000	109,000	106,000
Electricity	617,642	645,753	705,049	811,000	933,000	1,073,000	1,234,000	1,419,000	1,632,000
USBR Water Supply	215,297	312,973	417,685	406,000	396,000	408,000	420,000	433,000	446,000
USBR WIIN Act Contract	-	-	407,597	-	-	-	-	-	-
Administration	327,792	326,694	362,841	437,000	451,000	465,000	479,000	493,000	508,000
Depreciation & Amortization	525,542	517,533	-	-	-	-	-	-	-
Total Operating Expenses	3,207,973	3,121,632	3,215,095	3,032,000	3,215,000	3,440,000	3,688,000	3,965,000	4,157,000
Operating Income/(Loss)	(431,527)	(217,632)	(129,095)	116,000	510,000	583,000	657,000	728,000	911,000
Non-Operating:									
Connection Fees	26,463	5,705	24,238	20,000	20,000	20,000	20,000	20,000	20,000
Other Revenue	31,143	26,433	20,630	25,000	25,000	25,000	25,000	25,000	25,000
Interest Income	28,008	16,977	20,608	20,000	20,000	20,000	20,000	20,000	20,000
Interest Expense	(183,268)	(167,427)	(174,305)	-	-	-	-	-	-
Total Non-Operating	(97,654)	(118,312)	(108,829)	65,000	65,000	65,000	65,000	65,000	65,000
Transfer In (Out)	21,044	0	0	-	-	-	-	-	-
Change in Net Position	(508,137)	(335,944)	(237,924)	181,000	575,000	648,000	722,000	793,000	976,000
Debt Service Coverage Calculation:									
Operating Income	(431,527)	(217,632)	(129,095)	116,000	510,000	583,000	657,000	728,000	911,000
Depreciation & Amortization	525,542	517,533	0	0	0	0	0	0	0
WIIN Contract One-Time Expense	-	-	407,597	-	-	-	-	-	-
Other Revenue	31,143	26,433	20,630	25,000	25,000	25,000	25,000	25,000	25,000
Interest Income	28,008	16,977	20,608	20,000	20,000	20,000	20,000	20,000	20,000
Net Income Available for Debt Service	153,166	343,311	319,740	161,000	555,000	628,000	702,000	773,000	956,000
Series 2005 Bond Debt Service (P&I)	\$310,339	\$309,306	\$307,851	\$310,988	\$308,500	\$305,250	\$306,500	\$307,375	\$302,875
Debt Service Coverage Ratio	0.49	1.11	1.04	0.52	1.80	2.06	2.29	2.51	3.16
Excess Cash After Debt Service	(\$157,173)	\$34,005	\$11,889	(\$149,988)	\$246,500	\$322,750	\$395,500	\$465,625	\$653,125
Project Portion From Rate Increase					(247,000)	(323,000)	(396,000)	(466,000)	(653,000)
Project Portion Lowering Cash Balance					(253,000)	(177,000)	(104,000)	(34,000)	(568,000)
Total Project					(500,000)	(500,000)	(500,000)	(500,000)	(653,000)
Ending Total Current Assets	2,866,040	2,900,000	2,912,000	2,762,000	2,509,000	2,332,000	2,228,000	2,194,000	2,194,000

B. USBR Projected Water Costs for FYE 23

2022/2023 City of Avenal USBR Water Cost Projections										
Month	AF Purchase	Contract Rate	Contract Total	Restoration Rate	Restoration Total	Trinity Rate	Trinity Total	Total	SLDMWA	Combined Total
Jul-22	294	\$27.73	\$8,144.09	\$22.46	\$6,596.33	\$0.15	\$44.05	\$14,784	\$100.00	\$29,369
Aug-22	279	\$27.73	\$7,738.17	\$22.46	\$6,267.55	\$0.15	\$41.86	\$14,048	\$100.00	\$27,905
Sep-22	275	\$27.73	\$7,627.53	\$22.46	\$6,177.95	\$0.15	\$41.26	\$13,847	\$100.00	\$27,506
Oct-22	240	\$27.73	\$6,665.90	\$22.46	\$5,399.07	\$0.15	\$36.06	\$12,101	\$100.00	\$24,039
Nov-22	184	\$27.73	\$5,115.38	\$23.00	\$4,242.83	\$0.15	\$27.67	\$9,386	\$100.00	\$18,447
Dec-22	177	\$27.73	\$4,911.14	\$23.00	\$4,073.43	\$0.15	\$26.57	\$9,011	\$100.00	\$17,711
Jan-23	178	\$27.73	\$4,934.11	\$23.00	\$4,092.48	\$0.15	\$26.69	\$9,053	\$100.00	\$17,793
Feb-23	157	\$27.73	\$4,360.54	\$23.00	\$3,616.75	\$0.15	\$23.59	\$8,001	\$100.00	\$15,725
Mar-23	175	\$28.00	\$4,887.63	\$23.00	\$4,014.84	\$0.15	\$26.18	\$8,929	\$100.00	\$17,456
Apr-23	204	\$28.00	\$5,709.11	\$23.00	\$4,689.63	\$0.15	\$30.58	\$10,429	\$100.00	\$20,390
May-23	223	\$28.00	\$6,232.42	\$23.00	\$5,119.49	\$0.15	\$33.39	\$11,385	\$100.00	\$22,259
Jun-23	238	\$28.00	\$6,669.80	\$23.00	\$5,478.76	\$0.15	\$35.73	\$12,184	\$100.00	\$23,821
Totals	2,624		\$72,995.82		\$59,769.10		\$266.46	\$133,159	\$262,421	\$396,000

MG 855
 \$463.13 per MG
 \$0.46 per TG

Projections

C. Water Cost of Service Allocation Model

Avenal Water Enterprise Revenue Requirement Allocation Table					
Cost Component (\$/yr)	Total	SF	MF	Com	CDC
Commodity	\$2,132,200	\$682,114	\$256,074	\$303,994	\$890,018
Capacity	673,800	306,441	78,641	93,040	195,679
Distribution	778,000	314,538	118,081	140,178	205,203
Billing & Customer Services	141,000	103,160	20,037	9,217	8,587
Total Revenue Requirement	3,725,000	1,406,252	472,832	546,429	1,299,487
Revenues at Present Rates	3,147,000	1,216,000	520,000	540,000	871,000
Balance/(Deficiency) of Funds	(578,000)	(190,252)	47,168	(6,429)	(428,487)
Summary Statistics					
Treated Water Sales (TG)	706,100	225,900	84,800	100,700	294,700
Cost of Service (\$/TG)	5.28	6.23	5.58	5.43	4.41
Present Revenue (\$/TG)	4.46	5.38	6.13	5.36	2.96
Change (%)	18.4%	16%	-9%	1%	49%
Cost of Service Detail by Customer Sector in \$/TG					
	Total	SF	MF	Com	CDC
Commodity	\$3.02	\$3.02	\$3.02	\$3.02	\$3.02
Capacity	\$0.95	1.36	0.93	0.92	0.66
Distribution	\$1.10	1.39	1.39	1.39	0.70
Billing & Customer Services	\$0.20	0.46	0.24	0.09	0.03
Total	\$5.28	\$6.23	\$5.58	\$5.43	\$4.41
New Average	\$5.28	\$5.28	\$5.28	\$5.28	\$5.28
Old Average		\$4.46	\$4.46	\$4.46	\$4.46

D. Water Cost of Service Allocation Model (Cont.)

Functionalization and Classification of Revenue Requirement						
Account Description	FY22/23 Total	Total (Calculated)	Commodity	Capacity	Dist	Billing & Customer Services Comments
Plant - Personnel	353,000	353,000	247,100	105,900	-	70/30 Split, based on overall system capacity factor of 1.3
Distribution - Personnel	463,000	463,000	-	-	463,000	100% Distribution
Vehicles, Equipment, Maint	202,000	202,000	70,700	30,300	101,000	50/50 Commodity + Capacity (70/30), then Distribution
Other O&M, Supplies, Misc	275,000	275,000	96,250	41,250	137,500	50/50 Commodity + Capacity (70/30), then Distribution
Professional Services	80,000	80,000	28,000	12,000	40,000	50/50 Commodity + Capacity (70/30), then Distribution
Chemicals	164,000	164,000	164,000	-	-	100% Variable
Electricity	854,000	854,000	597,800	256,200	-	70/30 assuming 30% electric capacity charges in summer.
USBR Wholesale Water	396,000	396,000	396,000	-	-	100% Variable
Billing and Customer Service	141,000	141,000	-	-	141,000	100% Billing and Customer Service
General Government & Public Safety	108,000	108,000	75,600	32,400	-	70/30 Split, based on overall system capacity factor of 1.3
Franchise	100,000	100,000	35,000	15,000	50,000	50/50 Commodity + Capacity (70/30), then Distribution
Major Repair	0	0	0	0	0	50/50 Commodity + Capacity (70/30), then Distribution
Series 2005 Debt	308,000	308,000	215,600	92,400	-	70/30 Split, based on overall system capacity factor of 1.3
Debt Service Coverage @ 2.00	308,000	308,000	215,600	92,400	-	70/30 Split, based on overall system capacity factor of 1.3
Rounding	-27,000	-27,000	-9,450	-4,050	-13,500	50/50 Commodity + Capacity (70/30), then Distribution
Totals	3,725,000	3,725,000	2,132,200	673,800	778,000	141,000
		100%	57%	18%	21%	4%

E. Water Cost of Service Allocation Model (Cont.)

Commodity and Capacity Allocation Factors									
Commodity					Capacity				
	MG/Yr Treated Sales	% Losses	MG/Yr before Losses	Commodity Allocation %	Avg Mo MG	Peaking Factor	Peak Mo MG	Peaking - Average	Peak Capacity %
SF	225.9	21.0%	273	32%	18.8	1.44	27.1	8.3	45% August 2020
MF	84.8	21.0%	103	12%	7.1	1.30	9.2	2.1	12% Set at 1.3
Com/City/Sch	100.7	21.0%	122	14%	8.4	1.30	10.9	2.5	14% Set at 1.3
CDC	<u>294.7</u>	21.0%	<u>357</u>	<u>42%</u>	<u>24.6</u>	<u>1.22</u>	<u>29.9</u>	<u>5.3</u>	<u>29%</u> Used Aug 2020. (Sept was 38.1, anomaly)
Totals	706.1		854	100%	58.9		77.2	18.3	100%
			0.325851 MG/AF						
			2,622 AF						

Unbilled of 21% based on 12 months as of June 2021

Distribution			
Commodity	Weighting Factor	Allocation %	Allocation
SF	1	32%	0.32
MF	1	12%	0.12
Com/City/Sch	1	14%	0.14
CDC	0.5	<u>42%</u>	<u>0.21</u>
Totals		100%	0.79

Billing & Customer Services			
Number of Customers	Weighting Factor	Allocation	
SF	1	1,802	73.2%
MF	10	350	14.2%
Com/City/Sch	1	161	6.5%
CDC	75	<u>150</u>	<u>6.1%</u>
Totals		2,463	100%

G. Present and Proposed Water Rates

City of Avenal Water Rates and Charges							
	Current Rates Effective 7/1/21	Effective 7/1/2022 Percent Change	New Rate	Proposed Rates			
				7/1/2023	7/1/2024	7/1/2025	7/1/2026
Volumetric Rates							
All metered water (\$/HCF)	\$2.02	22%	\$2.47	\$2.67	\$2.88	\$3.11	\$3.36
All metered water (\$/TG)	\$2.70	22%	\$3.30	\$3.57	\$3.85	\$4.16	\$4.49
Fixed Monthly Charges (\$/Mo)							
Single-Family Dwellings:							
5/8" Meter	\$26.29	6.5%	\$28.00	\$30.24	\$32.66	\$35.27	\$38.09
1" Meter	\$65.73	<i>reset</i>	\$28.00	\$30.24	\$32.66	\$35.27	\$38.09
Multi-family Per Living Unit							
Avenal State Prison	\$6,309.84	<i>reset</i>	\$27,763.00	\$29,984.04	\$32,382.76	\$34,973.38	\$37,771.25
All Other Customers:							
5/8" Meter	\$26.29	6.5%	\$28.00	\$30.24	\$32.66	\$35.27	\$38.09
1" Meter	\$65.73	0%	\$65.73	\$70.99	\$76.67	\$82.80	\$89.42
1.5" Meter	\$131.45	0%	\$131.45	\$141.97	\$153.33	\$165.60	\$178.85
2" Meter	\$210.33	0%	\$210.33	\$227.16	\$245.33	\$264.96	\$286.16
3" Meter	\$420.65	0%	\$421.00	\$455.00	\$491.00	\$530.00	\$572.00
4" Meter	\$657.27	0%	\$657.00	\$710.00	\$767.00	\$828.00	\$894.00
6" Meter	\$1,314.55	0%	\$1,315.00	\$1,420.00	\$1,534.00	\$1,657.00	\$1,790.00
8" Meter	\$2,103.27	0%	\$2,103.00	\$2,271.00	\$2,453.00	\$2,649.00	\$2,861.00

H. Sewer Revenue, Expense, and Fund Balance Table (Historical and Projected)

AVENAL SEWER ENTERPRISE FUND										
For the Fiscal Years Ending June 30,										
	2019	2020	2021	2022	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	
	Audited	Unaudited	Unaudited	Budget	Projected	Projected	Projected	Projected	Projected	
				Increase:	3%	3%	3%	3%	3%	
Total Operating Revenue	\$1,628,286	\$1,656,000	\$1,671,000	\$1,704,000	\$1,755,000	\$1,808,000	\$1,862,000	\$1,918,000	\$1,976,000	Inflation
Operation & Maintenance Expenses:										
Personnel	1,134,599	932,727	900,289	1,005,400	1,056,000	1,109,000	1,164,000	1,222,000	1,164,000	5%
Operations	82,118	97,051	142,500	197,870	204,000	210,000	216,000	222,000	216,000	3%
Electricity and Water	176,345	183,934	221,099	210,000	242,000	278,000	320,000	368,000	423,000	15%
Planned Solar Offset (85% of Elec & Wtr)	-	-	-	-	(206,000)	(236,000)	(272,000)	(313,000)	(360,000)	
Administration	333,792	357,721	400,337	444,520	458,000	472,000	486,000	501,000	516,000	3%
Depreciation & Amortization	154,490	202,633	141,044	-	-	-	-	-	-	n/a
Total Operating Expenses	1,881,344	1,774,066	1,805,269	1,857,790	1,754,000	1,833,000	1,914,000	2,000,000	1,959,000	
Operating Income/(Loss)	(253,058)	(118,066)	(134,269)	(153,790)	1,000	(25,000)	(52,000)	(82,000)	17,000	
Non-Operating:										
Connection Fees	23,362	4,810	20,158	10,000	10,001	10,002	10,003	10,004	10,005	
Interest Income	8,295	7,387	2,858	1,000	1,001	1,002	1,003	1,004	1,005	
Other and Penalties	8,430	7,066	468	1,000	1,001	1,002	1,003	1,004	1,005	
Total Non-Operating	40,087	19,263	23,484	12,000	12,003	12,006	12,009	12,012	12,015	
Change in Net Position	(212,971)	(98,803)	(110,785)	(141,790)	13,003	(12,994)	(39,991)	(69,988)	29,015	
Add back depreciation	154,490	202,633	141,044	-	-	-	-	-	-	
Net Gain (Loss)	(58,481)	103,830	30,259	(141,790)	13,003	(12,994)	(39,991)	(69,988)	29,015	
Project Funding With Available Cash	\$3,036,127	\$3,147,779	\$3,135,287	\$2,993,497	\$3,006,500	\$2,993,506	\$2,953,515	\$2,883,527	\$2,912,542	
Ending Total Current Assets										
				TG/YR treated	445,560	445,512	445,512	445,512	445,512	
				Resultant Processing Cost	\$3.94	\$4.11	\$4.30	\$4.49	\$4.40	

J. Sewer Cost Model (Existing and Proposed Revenue by Customer Class)

City of Avenal Sewer Rates and Revenue					
Existing and Proposed					
Existing Rates and Revenue					
Customer Group	Count	Units	Rate	\$/Mo	\$/Yr (Rounded)
Avenal State Prison	1	-	\$96,608.22	\$96,608	\$1,159,000
Commercial < 4 TG/Mo	60	-	\$50.18	\$3,011	\$36,000
Commercial > 4 TG/Mo	40	-	\$50.18	\$2,007	\$24,000
Schools	4	-	-	\$463	\$6,000
City	-	-	-	-	-
Multi-Family	37	660	\$15.47	\$10,210	\$123,000
Single-Family	1,915	-	\$15.47	\$29,625	\$356,000
Totals	2,057			\$141,924	\$1,704,000

Proposed Rates and Revenue					
Proposed Residential Baseline Rate:			\$25.60		
Customer Group	Count	Units	Rate	\$/Mo	\$/Yr (Rounded)
Avenal State Prison	1	-	\$73,125.00	\$73,125	\$878,000
Schools	4	-	\$2,085.00	\$2,085	\$25,000
Commercial < 4 TG/Mo	60	-	\$25.60	\$1,536	\$18,000
Commercial > 4 TG/Mo	40	-	\$76.80	\$3,072	\$37,000
City	6	-	\$76.80	\$461	\$6,000
Multi-Family	37	660	\$25.60	\$16,896	\$203,000
Single-Family	1,915	-	\$25.60	\$49,024	\$588,000
Totals	2,063			\$146,199	\$1,755,000

\$51,000
3%

K. Present and Proposed Sewer Rates

City of Avenal Sewer Rates and Charges							
	Current Monthly Rates Effective 7/1/2021	Proposed Monthly Rates					
		Effective 7/1/2022 Percent Change	New Rate	7/1/2023 3%	7/1/2024 3%	7/1/2025 3%	7/1/2026 3%
Residential Customers							
Fixed monthly charge for Single Family Residential and Multi-Family Residential for each unit	\$15.47	65%	\$25.60	\$26.37	\$27.16	\$27.97	\$28.81
Non-Residential Customers							
Non-residential customers with average annual water usage less than four thousand gallons per month (535 cubic feet)	\$50.18	-49%	\$25.60	\$26.37	\$27.16	\$27.97	\$28.81
Non-residential customers with average annual water usage equal to or more than four thousand gallons per month (535 cubic feet)	\$50.18	53%	\$76.80	\$79.10	\$81.47	\$83.91	\$86.43
Schools (per student)							
Elementary Schools	\$0.20	250%	\$0.70	\$0.72	\$0.74	\$0.76	\$0.78
Middle School	\$0.20	355%	\$0.91	\$0.94	\$0.97	\$1.00	\$1.03
High School	\$0.20	425%	\$1.05	\$1.08	\$1.11	\$1.14	\$1.17
Avenal State Prison	\$96,608.22	-24%	\$73,125.00	\$75,318.75	\$77,578.31	\$79,905.66	\$82,302.83
<p>Note: The City recommends the installation of separate landscape water meters when possible for commercial customers, exempt from the calculation of sewer charges. Customers may also submit written requests to the city manager for the lower sewer rate provided they can demonstrate water usage above 4,000 gallons per month average is being used for landscape purposes.</p>							

L. Proposition 218-Compliant Rate Increase Notice (Draft)

**CITY OF AVENAL
NOTICE OF PUBLIC HEARING ON
PROPOSED INCREASES IN WATER AND SEWER RATES**

To comply with Proposition 218 (California Constitution Article XIII D, Section 6), the City of Avenal gives the following notice.

Public Hearing: At 5:15 p.m. (or thereafter) on Thursday, June 23, 2022, at the Avenal Theater & Event Center, 233 E. Kings Street, Avenal, CA, the Avenal City Council will hold a public hearing on proposed increases in rates for water and sewer service, and to hear and consider objections and protests to the proposed increases described in this notice. Access to the meeting is also available by phone or internet, with specific connection information to be on the City Council Meeting agenda, made available on the City's website (www.cityofavenal.com) to the public prior to the hearing.

Rate Study Report: A Rate Study Report by IGService, dated April 19, 2022, describing details of the water and sewer rate changes and the method used to calculate the rate changes has been prepared, and the contents submitted to the City Council. The report is available at City Hall and can also be found on the City website.

Amount of Proposed Modified Rates: Existing and proposed rates are included in this Notice. For a typical home using 9,000 gallons per month, the monthly water cost will increase from approximately \$51 to \$58, and the sewer cost will increase from approximately \$15 to \$25. Combined, the increase for a typical home will be approximately \$17 per month.

Reason for the Needed Increase in Water and Sewer Revenue: For water, the primary reason for the needed overall revenue increase is to cover increasing expenses to provide safe and reliable water to Avenal's residents, and further to meet bond requirements. For sewer, the overall revenue increase is needed primarily to cover ongoing inflation. For both water and sewer, cost-of-service adjustments have been made for more fairness across customer classes. For example, some multi-family customers and newer single-family homes with one-inch meters may see a decrease in water costs. Details of the rate changes for both water and sewer can be found in the Report. Revenue from the modified rates and charges will not be more than the funds required for the City to provide adequate service. Specifically, the proposed rates do not exceed the proportional cost of providing each service.

Procedure for Hearing and Determining Majority Protest: At the time stated above in this Notice, the Council will hear and consider all objections and protests, if any, to the proposed increases and other matters described in the Report. The Council may continue the hearing from time to time. At the close of the hearing, if written protests against the proposed increases are presented and not withdrawn by a majority of the record owners of the parcels that would be subject to the increases, the City may not impose the increased water and sewer rates; instead, rates would continue at their existing, previously-approved amounts. If, at the close of the protest hearing, there is no majority protest as described above, the Council may approve the increases, as proposed, or as changed by the Council, to be effective July 1, 2022.

How to Submit a Protest. Protests may be submitted by the record owner of the parcel or a tenant of a parcel subject to the proposed rates, but only one protest per parcel will be counted. Written protests must contain a clear statement that it is a protest against the proposed charges and it must include the name of the owner or customer of record, a description of the parcel or parcels (Assessor's Parcel Number or street address) and an original signature of the owner or customer of record. Written protests regarding the proposed rate changes may be mailed or personally delivered to: City of Avenal, City Clerk, 919 Skyline Blvd, Avenal, CA 93204. To be valid, a protest must be in writing and received by the City Clerk at or before the closing of the public hearing on June 23, 2022.

Preserving the Right to Challenge: Separate from the right to file a protest, any person who wants to preserve the opportunity to file a lawsuit challenging the proposed increases, if imposed, or other matters described in the Report, must state the specific grounds for the objection, and submit that objection in writing prior to or during the public hearing, or orally during the public hearing. Any grounds not provided and received before the close of the public hearing on June 23, 2022, will be deemed waived and may not be raised in any subsequent lawsuit.

Additional Information: Please direct questions about the proposed rate proceeding to Angie Ortiz, City Clerk, at (559) 386-5782, or by email to cityclerk@cityofavenal.us.

City of Avenal Water Rates and Charges							
	Current Rates	Proposed Rates					
		Effective 7/1/2022		7/1/2023	7/1/2024	7/1/2025	7/1/2026
	Effective 7/1/21	Percent Change	New Rate	8%	8%	8%	8%
Volumetric Rates							
All metered water (\$/HCF)	\$2.02	22%	\$2.47	\$2.67	\$2.88	\$3.11	\$3.36
All metered water (\$/TG)	\$2.70	22%	\$3.30	\$3.57	\$3.85	\$4.16	\$4.49
Fixed Monthly Charges (\$/Mo)							
Single-Family Dwellings:							
5/8" Meter	\$26.29	6.5%	\$28.00	\$30.24	\$32.66	\$35.27	\$38.09
1" Meter	\$65.73	-57.4%	\$28.00	\$30.24	\$32.66	\$35.27	\$38.09
Multi-family Per Living Unit	\$26.29	-31.5%	\$18.00	\$19.44	\$21.00	\$22.68	\$24.49
Avenal State Prison	\$6,309.84	340%	\$27,763.00	\$29,984.04	\$32,382.76	\$34,973.38	\$37,771.25
All Other Customers:							
5/8" Meter	\$26.29	6.5%	\$28.00	\$30.24	\$32.66	\$35.27	\$38.09
1" Meter	\$65.73	0%	\$65.73	\$70.99	\$76.67	\$82.80	\$89.42
1.5" Meter	\$131.45	0%	\$131.45	\$141.97	\$153.33	\$165.60	\$178.85
2" Meter	\$210.33	0%	\$210.33	\$227.16	\$245.33	\$264.96	\$286.16
3" Meter	\$420.65	0%	\$421.00	\$455.00	\$491.00	\$530.00	\$572.00
4" Meter	\$657.27	0%	\$657.00	\$710.00	\$767.00	\$828.00	\$894.00
6" Meter	\$1,314.55	0%	\$1,315.00	\$1,420.00	\$1,534.00	\$1,657.00	\$1,790.00
8" Meter	\$2,103.27	0%	\$2,103.00	\$2,271.00	\$2,453.00	\$2,649.00	\$2,861.00

City of Avenal Sewer Rates and Charges							
	Current Monthly Rates	Proposed Monthly Rates					
		Effective 7/1/2022		7/1/2023	7/1/2024	7/1/2025	7/1/2026
	Effective 7/1/2021	Percent Change	New Rate	3%	3%	3%	3%
Residential Customers							
Fixed monthly charge for Single-Family Residential and Multi-Family Residential for each unit	\$15.47	65%	\$25.60	\$26.37	\$27.16	\$27.97	\$28.81
Non-Residential Customers							
Non-residential customers with average annual water usage <u>less</u> than four thousand gallons per month (535 cubic feet)	\$50.18	-49%	\$25.60	\$26.37	\$27.16	\$27.97	\$28.81
Non-residential customers with average annual water usage equal to or <u>more</u> than four thousand gallons per month (535 cubic feet)	\$50.18	53%	\$76.80	\$79.10	\$81.47	\$83.91	\$86.43
Schools (per student)							
Elementary Schools	\$0.20	250%	\$0.70	\$0.72	\$0.74	\$0.76	\$0.78
Middle School	\$0.20	355%	\$0.91	\$0.94	\$0.97	\$1.00	\$1.03
High School	\$0.20	425%	\$1.05	\$1.08	\$1.11	\$1.14	\$1.17
Avenal State Prison	\$96,608.22	-24%	\$73,125.00	\$75,318.75	\$77,578.31	\$79,905.66	\$82,302.83

Note: The City recommends the installation of separate landscape water meters exempt from the calculation of sewer charges for commercial customers. Customers may also submit written requests to the city manager for the lower sewer rate provided they can demonstrate water usage above 4,000 gallons per month average is being used for landscape purposes.