

RESOLUTION NO. 2020-04

**A RESOLUTION OF THE BOARD OF DIRECTORS OF
THE PHELAN PIÑON HILLS COMMUNITY SERVICES DISTRICT
DETERMINING THAT THERE WAS NO MAJORITY PROTEST OF
THE PROPOSED WATER RATE INCREASES AND
ADOPTING A WATER RATE SCHEDULE
AND SUPERCEDING EXISTING RATES**

WHEREAS, the Phelan Piñon Hills Community Services District ("District") is a Community Services District located within the County of San Bernardino and is organized and operates pursuant to the California Government Code Section 61000, *et seq.*; and

WHEREAS, pursuant to Resolution No. 2994 of the Local Agency Formation Commission of the County of San Bernardino ("LAFCO") adopted on March 18, 2008, the District is the successor agency to County Service Area 9, County Service Area 56 Improvement Zone F-1, and County Service Area 70 Improvement Zones L and P-4 ("the CSAs"); and

WHEREAS, prior to the adoption of LAFCO Resolution No. 2994, the territory within the CSAs was subject to water rates that had been established by the County of San Bernardino pursuant to ordinances and resolutions that had been adopted by its Board of Supervisors; and

WHEREAS, by minute action taken at its first meeting on March 19, 2008, the District's Board of Directors approved the continuation and extension of all previously authorized fees and charges that had been fixed, levied, and imposed as a condition of water service within the CSAs; and

WHEREAS, pursuant to Condition No. 6 of LAFCO Resolution No. 2994 and Section 61100(a) of the California Government Code, the District is authorized to supply water for any beneficial uses in the same manner as a municipal water district formed pursuant to California Water Code Section 71000; and

WHEREAS, under California Water Code Sections 71613-71617, a municipal water district is authorized to fix rates and charges for the water it delivers; and

WHEREAS, under California Water Code Section 61115(a), the District is authorized to establish rates or other charges for services and facilities that the District supplies and to provide for the collection and enforcement of those rates or charges; and

WHEREAS, the District has retained the services of a qualified firm, IB Consulting, Inc., to prepare the Water Rate Study dated March 18, 2020, that is attached hereto as Exhibit "A" and incorporated herein by this reference ("the Water Rate Study"); and

WHEREAS, the revenue raised by the District's rates and charges will be used to modify or construct additional public facilities and to procure additional sources of supply to provide adequate water services, and do not exceed the total cost of such facilities and services; and

WHEREAS, this action is necessary to meet the District's operating expenses, to purchase and/or lease supplies, equipment, and materials, to meet the District's financial reserve needs and requirements, and to obtain funds for capital projects necessary to maintain water service within the

boundaries of the District, and is therefore exempt from the requirements of the California Environmental Quality Act as provided by Public Resources Code Section 21080(b)(8); and

WHEREAS, the amount of the rates and charges hereby adopted do not exceed the reasonable anticipated costs for the corresponding services provided by the District, and therefore the fees imposed hereby to not qualify as a “tax” under Article XIIC, Section 1(e) of the California Constitution or Section 50076 of the California Government Code, and the actions taken herein are exempt from the additional notice and public meeting requirements of the Brown Act pursuant to Government Code Section 54954.6(a)(1)(A) and (B); and

WHEREAS, the District has satisfied all of the substantive and procedural prerequisites of Articles XIIC and XIID of the California Constitution in establishing the rates and charges set forth herein, including but not limited to, the identification of the parcels upon which the rates and charges will be imposed; the calculation of the rates and charges; the mailing of written notice to the record owners of each parcel upon which the rates and charges will be imposed describing the amount thereof, the basis upon which the rates and charges were calculated, the reason for the rates and charges, and the date, time, and location of the public hearing to be held thereon; and the conducting of a public hearing on the rates and charges not less than 45 days after mailing the notice during which all protests against the fee were considered.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Phelan Pinon Hills Community Services District does hereby resolve and determine that the written protests against the rates and charges set forth herein that were received by the District prior to the close of the public hearing hereon represented less than a majority of the parcels subject to the rates and charges set forth below and, thus, the District’s Board of Directors further finds that the public interest and necessity requires the adoption of the content and findings of the Water Rate Study and the following rates and charges for water service by the District, as well as affirmation and ratification of all prior rates and charges previously adopted by the District’s Board of Directors:

SECTION 1. WATER SERVICE CHARGE

A. The fixed rate component of the District’s water service charge is the monthly charge per meter applicable to all metered water services and is comprised of the monthly meter charge and the monthly Chromium 6 surcharge. The charges, which vary by meter size, is hereby established in the maximum amounts listed in Exhibit “B” attached hereto and incorporated herein by this reference, but said increases shall be phased in periodically in accordance with the schedule set forth therein. During that time, the District’s Board of Directors will determine the amount of revenue required during the budget process each year and will continue to look for cost saving opportunities and revenue resources in an effort to potentially reduce or suspend implementation of said increases, which shall not exceed the District’s cost of providing the services described herein.

B. The consumption rate component of the District’s water service charge is the monthly flow charge calculated based upon the volume of usage for all metered water services. The charge, which varies based upon the amount of consumption, is hereby established in the maximum amounts listed in Exhibit “C” attached hereto and incorporated herein by this reference, but said increases shall be phased in periodically in accordance with the schedule set forth therein. During that time, the District’s Board of Directors will determine the amount of revenue required during the budget process each year and will continue to look for cost saving opportunities and revenue resources in an effort to potentially reduce or suspend implementation of said increases, which shall not exceed the District’s cost of providing the services described herein.

SECTION 2. GENERAL MANAGER AUTHORITY

The District's General Manager is hereby authorized to take any and all actions necessary to carry out the intent of the District's Board of Directors as is stated herein and as otherwise required in order to comply with applicable law.

SECTION 3. EFFECTIVE DATE

This Resolution shall take effect immediately upon adoption and shall supersede Resolution No. 2016-01 adopted by the Board on January 20, 2016.

ADOPTED by the Board of Directors of the Phelan Piñon Hills Community Services District at a regular meeting held on May 6, 2020, by the following vote:

AYES: Hoffman, Johnson, Kujawa, Philips, Roberts
NOES: NONE
ABSENT: NONE
ABSTAIN: NONE



President, Board of Directors

Attest:



Secretary, Board of Directors

Public Hearing
May 6, 2020

Water Rate Study

Phelan Piñon Hills
Community Services District



IB Consulting, LLC

31938 Temecula Parkway, Suite A #350

Temecula, CA. 92592

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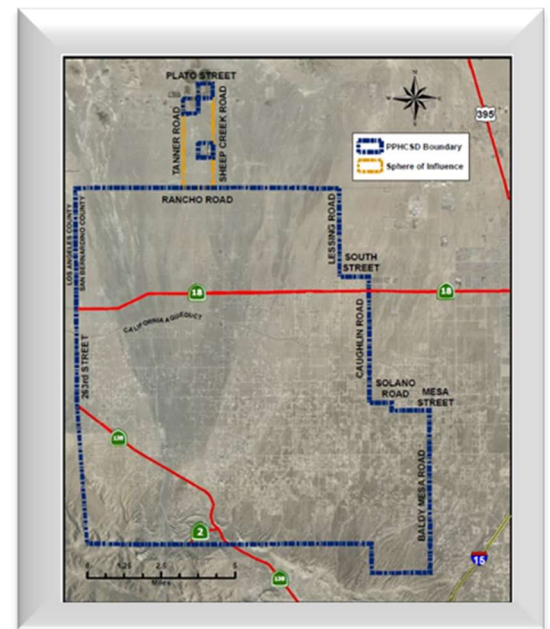
Executive Summary

The Phelan Piñon Hills Community Facilities District (CSD) periodically reviews its water utility to determine if adjustments are required to continue meeting its operational costs, system improvements, and adequate reserve funding based on the adopted reserve policies. The last cost of service study in 2015 set rates for Fiscal Years (FY) 2015-16 through FY 2019-20. With the CSD in its last year of noticed rates, updating the water utility’s long-term financial plan and conducting a comprehensive cost of service analysis is a prudent business practice to ensure the utility can fully fund its revenue needs over the next five fiscal years and beyond.

The CSD was formed in 2008 and the water service area spans approximately 128 square miles in San Bernardino County. Since inception, the CSD has made significant improvements to the water system, including addressing necessary repair and replacements to aging infrastructure, acquiring additional water rights for continued water sustainability, implementing a comprehensive meter replacement program, and currently addressing new regulations by the State for Chromium 6 detection to ensure safe, high-quality water is delivered now and in the future.

As part of reviewing and updating an agency’s utility rates, we first conduct a thorough review of the financial health of the utility. Based on the 10-year financial plan, revenue from current rates sufficiently covers operating expenses from FY 2021 through FY 2025 (Rate Setting Period); however, the utility has significant capital projects that outpaces their annual capital spending budget by more than double in certain years. Unless adjustments are made, current rate revenues will not be enough to fund necessary system improvements and meet reserve requirements.

The CSD’s current rate structure includes a monthly fixed charge, a flat account surcharge, and commodity rates. Residential customers¹ are on a two-tiered variable rate structure and non-residential customers are charged uniform rates. Based on our updated cost of service analysis, fixed revenue recovery will remain at approximately 50% of total revenue. The proposed rate structure is similar to the existing rate structure with a slight adjustment to the residential Tier 1 allotment. Residential Tier 1 was adjusted down by 1 unit of water (1 hundred cubic feet (hcf)) to 11 hcf, reflecting the current average annual water usage of Residential customers.



¹ Residential customers include billing codes identified as Residential, Multi-Family, and Commercial 2.

Phelan Piñon Hills CSD – Water Rate Study

The proposed rates derived within this report include five years of phase-in adjustments, commencing on July 1, 2020 for FY 2020-21 through July 1, 2024 for FY 2024-25. With the proposed rates, the utility will continue to generate positive net income above operating, fully fund its capital projects through a combination of cash on hand and bank loans and meet minimum reserve targets by FY 2025². The Chromium 6 surcharge will remain at \$9.71 per account and is forecasted to remain constant over the next five years. The recommended rates have been incorporated into a notice and mailed to each customer as part of the Proposition 218 noticing requirements. A Public Hearing is scheduled for May 6, 2020 on the proposed rates identified in Table 1 and Table 2.

Table 1: Proposed FY 2021 – FY 2025 Monthly Fixed Charges

Meter Fixed Charges (\$/Month)					
Meter Size	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
5/8"	\$22.28	\$23.62	\$25.04	\$26.55	\$28.15
3/4"	\$22.28	\$23.62	\$25.04	\$26.55	\$28.15
1"	\$32.06	\$33.99	\$36.03	\$38.20	\$40.50
1 1/2"	\$56.51	\$59.91	\$63.51	\$67.33	\$71.37
2"	\$85.85	\$91.01	\$96.48	\$102.27	\$108.41
3"	\$178.76	\$189.49	\$200.86	\$212.92	\$225.70
4"	\$315.68	\$334.63	\$354.71	\$376.00	\$398.56
6"	\$643.31	\$681.91	\$722.83	\$766.20	\$812.18
8"	\$1,376.81	\$1,459.42	\$1,546.99	\$1,639.81	\$1,738.20

Table 2: Proposed FY 2021 – FY 2025 Variable Charges

Variable Rates (\$/hcf)					
Customer Class	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Residential					
Tier 1	\$2.64	\$2.80	\$2.97	\$3.15	\$3.34
Tier 2	\$4.01	\$4.26	\$4.52	\$4.80	\$5.09
Commercial	\$3.06	\$3.25	\$3.45	\$3.66	\$3.88
Institutional	\$3.53	\$3.75	\$3.98	\$4.22	\$4.48

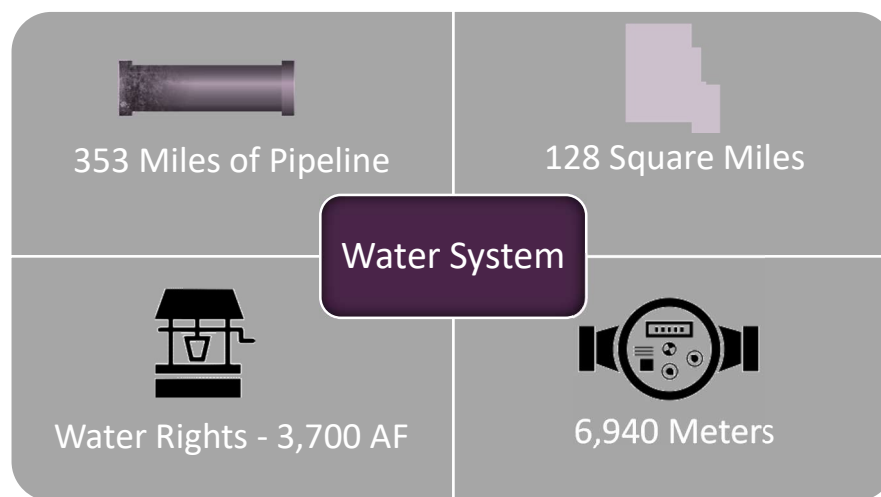
² The Proposed financial plan assumes water usage does not fall below FY 2018-19 demand and future expenses do not exceed the projected costs identified herein.

Overview

Water System

The water system service area spans 128 square miles and includes 353 miles of pipeline that ranges in diameter from 4 inches to 16 inches. Customers are primarily served with groundwater from the local aquifer through approximately a dozen active wells located in Zone 1 and Zone G. Groundwater is treated locally with chlorine before being discharged into the distribution system. In 2008, additional water rights were acquired through the purchase of Meadowbrook Dairy. The acquisition increased the annual rights of Oeste Water to 3,700 AF and grants more control over supply costs by eliminating lease agreements for water transfers.

Figure 1: Phelan Pinon Hills CSD Water System

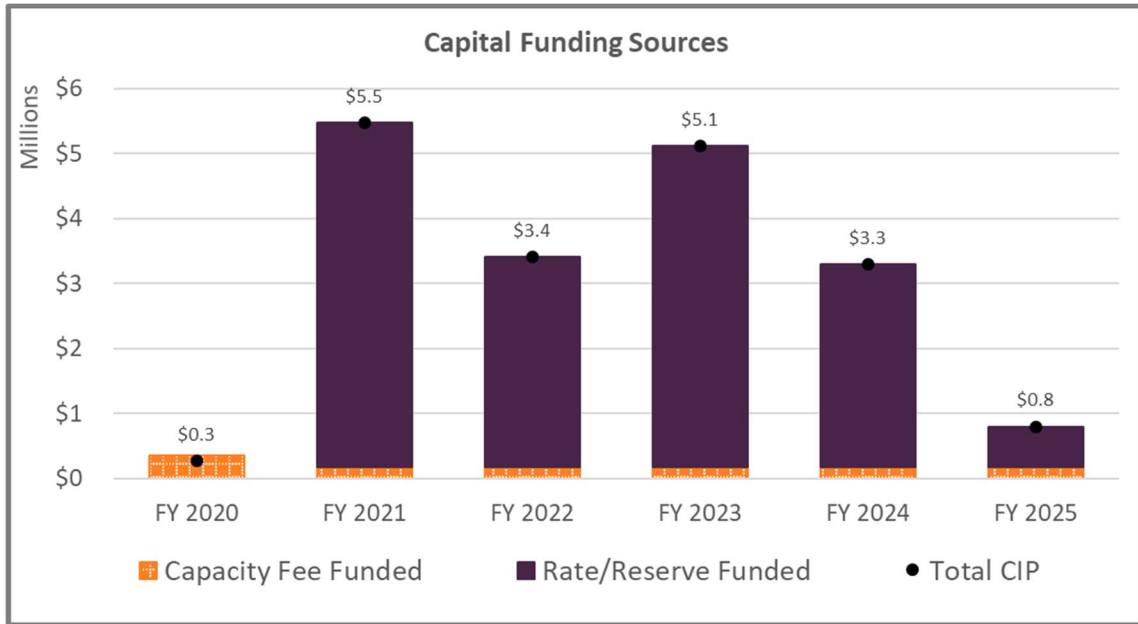


The additional water rights will also allow the CSD to blend water from its various wells to assist with complying to the new maximum contaminant level (MCL) detection standards of Chromium 6 by the State that recently changed from a detection of parts per million (ppm) to a higher precision of 10 parts per billion (ppb). The change from ppm to ppb triggered the CSD from being within compliance to out of compliance. The State is continuing to update its MCL requirements and the final MCLs will be adopted within the next 12 months. Given the higher level of MCLs, the CSD is moving forward with meeting the new regulations through system improvements focused on blending its water supplies versus the more expensive chemical treatment.

In recent years, the CSD has budgeted its system repair and replacement spending based on the annual depreciation value. Based on Board policy, the CSD spends 60% of current year depreciation on capital spending; however, the repairs and replacement needed over the next five years exceeds the current targeted spending level and requires additional funding to complete planned projects. The CSD's annual depreciation is \$2M and capital spending target is only \$1.2M. There are three projects over the Rate Setting Period that make up a majority of the overall system costs which include the Chromium 6 project – estimated at \$7.5M, Civic Center headquarters – estimated at \$4M, and the CSD's meter replacement program – estimated at approximately \$3.5M. With these major improvements and ongoing repair and replacements to the water system, average capital spending is approximately \$3.6M per year through FY 2025. Figure 2 shows the CSD's capital plan with current funding sources, which includes a limited amount of capacity fees from new connections.

Phelan Piñon Hills CSD – Water Rate Study

Figure 2: Capital Improvement Plan



Customers

The CSD serves approximately 6,940 accounts, with over 95% of accounts classified as Residential. Table 3 provides a summary of accounts by customer class and meter size.

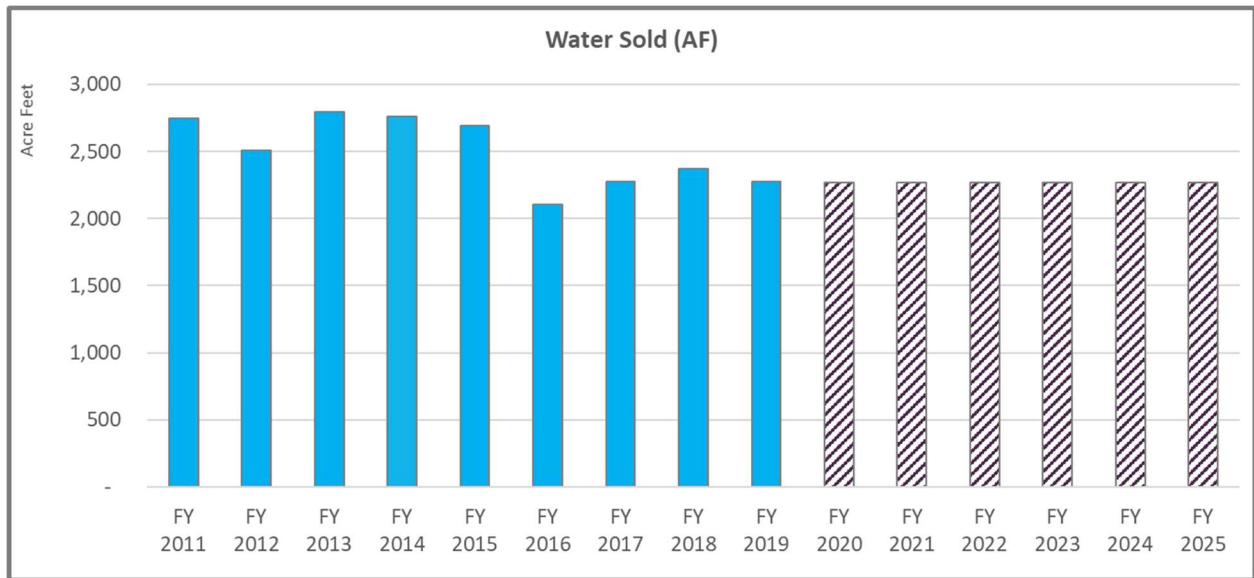
Table 3: Accounts by Meter Size

Meter Size	Residential	Commercial	Institutional	Total
3/4"	1,886	17	1	1,904
1"	4,930	19	6	4,955
1 1/2"	29	1	-	30
2"	21	4	23	48
3"	1	-	1	2
4"	-	-	1	1
Total	6,867	41	32	6,940

Phelan Piñon Hills CSD – Water Rate Study

Water sales over the last five years have continued to be lower than 2013 sales due to the drought and mandatory conservation. Since the elimination of the mandatory conservation, sales have rebounded but not to the levels of pre-drought usage. Customers have made permanent changes to reduce their consumption and continue to use water more efficiently. Figure 3 shows both historical water sales and projected water sales in acre-feet. FY 2019 water sales were used as the baseline for the Rate Setting Period.

Figure 3: Water Sales



The current rate structure consists of a monthly fixed meter charge, a monthly account Chromium 6 surcharge that is directly tied to expenses associated with Chromium 6 mitigation, and a commodity or usage rate. Residential customers are on a 2-tiered commodity rate structure and non-residential customers (Commercial and Institutional) are on a uniform commodity rate structure. Current monthly fixed charges are identified in Table 4 followed by commodity rates identified in Table 5 by customer class and tier.

Phelan Piñon Hills CSD – Water Rate Study

Table 4: FY 2020 Monthly Fixed Charges

Meter Size / Connection	Number of Accounts	Monthly Fixed Charge	Chromium 6 Surcharge
3/4"	1,904	\$19.16	\$9.71
1"	4,955	\$29.56	\$9.71
1 1/2"	30	\$55.54	\$9.71
2"	48	\$86.72	\$9.71
3"	2	\$159.47	\$9.71
4"	1	\$263.41	\$9.71
Fire Lines	7	\$27.00	-

Table 5: FY 2020 Commodity Rates

Customer Class	Tier Allotment	Projected Usage (hcf)	FY 2020 Rates (\$/hcf)
Residential			
Tier 1	12 hcf	566,128	\$2.53
Tier 2	>12 hcf	319,681	\$4.00
Commercial	N/A	5,713	\$3.02
Institutional	N/A	93,822	\$3.21
Construction	N/A	3,842	\$4.00

Financial Plan Overview

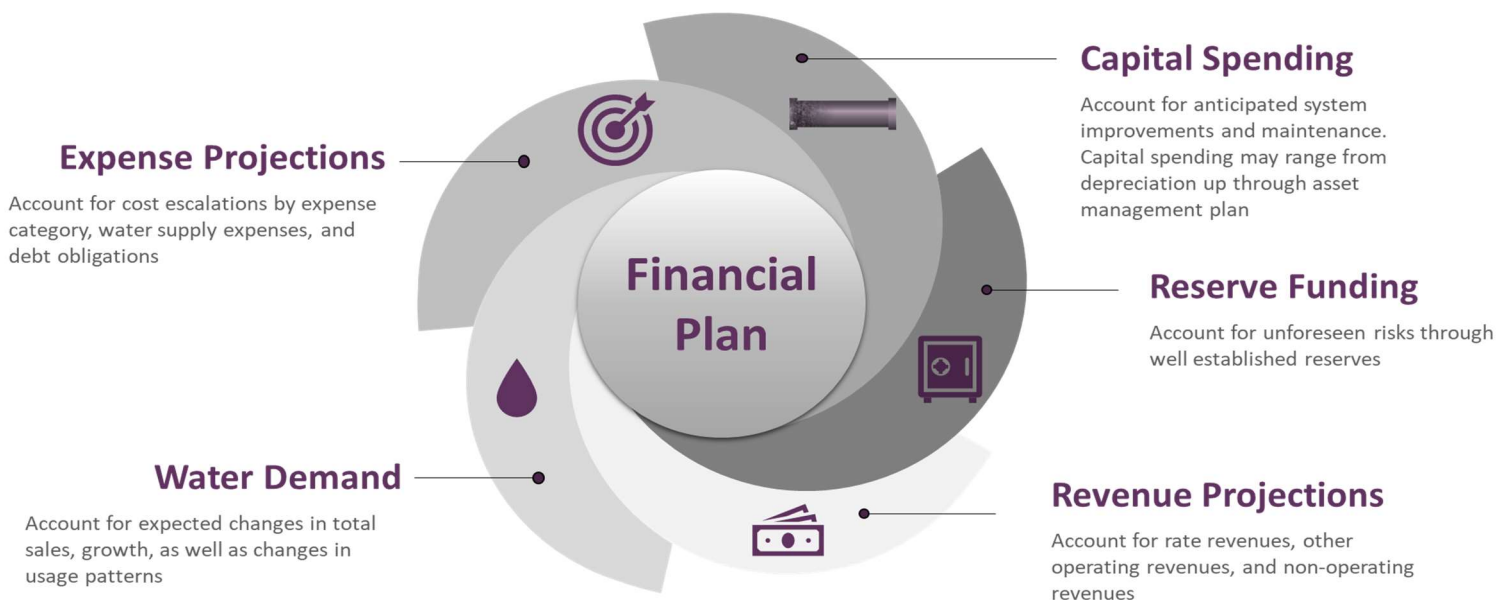
Financial Planning

Financial planning incorporates numerous considerations besides projecting operating expenses and forecasting expected costs through various inflationary adjustments. Utilities also need to account for changes in water demand driven by variations in usage due to weather, water availability, State mandates, growth, and economic factors. In addition, system maintenance and reinvestment, reserves, and debt compliance all influence revenues needed in future years. Therefore, a comprehensive financial plan reviews the following:

- 1) Historical water sales and consumption patterns to determine an appropriate baseline level of usage for projecting future water use.
- 2) Operational costs that may change over the planning period as a result of inflation as well any new expenditures incurred to meet strategic goals, State mandates, or changes in operations.
- 3) Multi-year system improvement needs and scheduling based on priority. This review also considers available funding sources to complete projects such as pay-as-you-go (PAYGO), grants, and debt.
- 4) Reserve funding to meet adopted reserve policies. The goal is to generate adequate cash on hand to mitigate financial risks related to monthly operating cashflow needs, unexpected increases in expenses, shortages in system reinvestment, and mitigating potential system failures.

Figure 4 illustrates the key elements when developing a long-term financial plan

Figure 4: Financial Plan Key Elements



Phelan Piñon Hills CSD – Water Rate Study

Financial Planning Assumptions

Developing a long-term financial plan requires an understanding of the utility’s financial position by evaluating existing revenue streams, ongoing expenses and how those expenses will change over time, including existing debt requirements and reserves. With these considerations, certain assumptions are required for projecting revenues, expenses, and ending fund balances. Table 6 identifies assumptions used for forecasting revenues and Table 7 identifies assumptions used for forecasting increases in expenses over the Rate Setting Period.

Table 6: Assumptions for Forecasting Revenues

Financial Inputs	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Account Growth	0%	0%	0%	0%	0%
Water Demand Increase	0%	0%	0%	0%	0%
Interest earning	1.5%	1.5%	1.5%	1.5%	1.5%
Non-Inflated	0%	0%	0%	0%	0%
Water Sales (hcf)	989,185	989,185	989,185	989,185	989,185
Water Sales less Construction (hcf)	985,344	985,344	985,344	985,344	985,344

Table 7: Assumptions for Forecasting Expense Requirements

Expenditure Escalations	Notes	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Benefits		5.0%	5.0%	5.0%	5.0%	5.0%
Capital	ENR – 20 City (20-Yr average)	3.2%	3.2%	3.2%	3.2%	3.2%
Electricity		5.0%	5.0%	5.0%	5.0%	5.0%
General Costs	CPI LA (5-Yr average)	2.1%	2.1%	2.1%	2.1%	2.1%
Non-Inflated		0%	0%	0%	0%	0%
Water Loss		13.8%	13.8%	13.8%	13.8%	13.8%

Current Financial Position

Revenues

Based on the forecasting assumptions, revenues were calculated using FY 2020 rates, current account data, and FY 2019 sales, equal to 989,185 hcf. Table 8 shows a summary of the calculated revenues for FY 2020 through FY 2025. The detailed calculations can be found in the rate model on file with the District. Table 9 provides a summary of calculated revenues and other non-rate revenues available for FY 2020 through FY 2025.

Phelan Piñon Hills CSD – Water Rate Study

Table 8: FY 2020 – FY 2025 Calculated Revenues

Rate Revenue	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Calculated Rate Revenue						
Water Sales - Residential - C	\$2,708,183	\$2,708,183	\$2,708,183	\$2,708,183	\$2,708,183	\$2,708,183
Water Sales - Commercial - C	\$17,253	\$17,253	\$17,253	\$17,253	\$17,253	\$17,253
Water Sales - Fire Protection - C	\$0	\$0	\$0	\$0	\$0	\$0
Water Sales - Multiple Res - C	\$2,845	\$2,845	\$2,845	\$2,845	\$2,845	\$2,845
Water Sales - School - C	\$301,169	\$301,169	\$301,169	\$301,169	\$301,169	\$301,169
Water Sales - Construction - C	\$15,368	\$15,368	\$15,368	\$15,368	\$15,368	\$15,368
Water Sales - Residential - M	\$2,223,034	\$2,223,034	\$2,223,034	\$2,223,034	\$2,223,034	\$2,223,034
Water Sales - Commercial - M	\$15,477	\$15,477	\$15,477	\$15,477	\$15,477	\$15,477
Water Sales - Fire Protection-M	\$2,268	\$2,268	\$2,268	\$2,268	\$2,268	\$2,268
Water Sales - Multiple Res - M	\$2,460	\$2,460	\$2,460	\$2,460	\$2,460	\$2,460
Water Sales - School - M	\$31,368	\$31,368	\$31,368	\$31,368	\$31,368	\$31,368
Water Sales - Construction - M	\$0	\$0	\$0	\$0	\$0	\$0
Total Calculated Rate Revenue	\$5,319,424	\$5,319,424	\$5,319,424	\$5,319,424	\$5,319,424	\$5,319,424

Table 9: FY 2020 – FY 2025 Projected Revenues

Revenue Summary	Proposed FY 2020	Projected FY 2021	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025
Water Billings						
Meter Charges	\$2,275,000	\$2,275,000	\$2,275,000	\$2,275,000	\$2,275,000	\$2,275,000
Water Consumption	\$3,045,000	\$3,045,000	\$3,045,000	\$3,045,000	\$3,045,000	\$3,045,000
Subtotal Water Billings	\$5,320,000	\$5,320,000	\$5,320,000	\$5,320,000	\$5,320,000	\$5,320,000
Meter Installation/Fees/Connections						
Meter Installation	\$110,932	\$111,000	\$111,000	\$111,000	\$111,000	\$111,000
Permits & Inspections	\$4,796	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Connection Fee	\$357,266	\$178,633	\$179,000	\$179,000	\$179,000	\$179,000
Subtotal Meter Installation/Fees/Connections	\$472,994	\$294,633	\$295,000	\$295,000	\$295,000	\$295,000
Other Operating Income						
Other Service Incomes (Administration)	\$3,260	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Other Service Incomes (Customer Accounts/Meters)	\$125,164	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000
Administrative Fees	\$50,313	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Administrative Fees (Administration)	\$9,086	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000
Subtotal Other Operating Income	\$187,823	\$187,000	\$187,000	\$187,000	\$187,000	\$187,000
Non-Operating Revenues						
Property Tax Penalties & Others	\$19,456	\$19,000	\$19,000	\$19,000	\$19,000	\$19,000
Special Assessments	\$293,439	\$293,000	\$293,000	\$293,000	\$293,000	\$293,000
Penalties & Other Fees (Administration)	\$113,668	\$114,000	\$114,000	\$114,000	\$114,000	\$114,000
Interest Income	\$167,995	\$77,000	\$87,000	\$96,000	\$101,000	\$106,000
Other Income - Water Other	\$2,195	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Other Income	\$1,500	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Pipeline Location Service Charge	\$329,931	\$329,931	\$329,931	\$0	\$0	\$0
Chromium 6 Surcharge	\$808,765	\$809,000	\$809,000	\$809,000	\$809,000	\$809,000
Subtotal Non-Operating Revenues	\$1,736,949	\$1,645,931	\$1,655,931	\$1,335,000	\$1,340,000	\$1,345,000
Total Water Revenues	\$7,717,766	\$7,447,564	\$7,457,931	\$7,137,000	\$7,142,000	\$7,147,000

Phelan Piñon Hills CSD – Water Rate Study

Expenses

The FY 2020 budget was used to identify the baseline expenses of the utility and adjusted in subsequent years based on the escalation factors shown in Table 7. Table 10 provides projected Operational & Maintenance (O&M) costs through FY 2025. Each expense category includes detailed line item expenditures that were discussed with staff to determine the appropriate escalation factor to use for forecasting how costs will increase over time. Detailed expenses are shown in Appendix A-2.

Table 10: FY 2020 – FY 2025 Projected O&M Expenses

O&M Expenses	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Operating Expenses						
Administration	\$1,412,000	\$1,463,000	\$1,517,000	\$1,572,000	\$1,629,000	\$1,689,000
Chromium 6 Mitigation	\$809,000	\$809,000	\$599,000	\$388,000	\$178,000	\$178,000
Conservation	\$59,000	\$60,000	\$61,000	\$62,000	\$63,000	\$64,000
Customer Accounts/Meters	\$597,000	\$623,000	\$650,000	\$677,000	\$705,000	\$734,000
Distribution/Transmission	\$516,000	\$674,000	\$699,000	\$725,000	\$752,000	\$780,000
Engineering	\$284,000	\$296,000	\$309,000	\$322,000	\$337,000	\$352,000
Operations	\$666,000	\$694,000	\$724,000	\$755,000	\$787,000	\$821,000
Production	\$592,000	\$617,000	\$643,000	\$670,000	\$698,000	\$727,000
Supply	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000
Vehicles and Equipment	\$135,000	\$138,000	\$141,000	\$144,000	\$147,000	\$150,000
Water Quality	\$76,000	\$78,000	\$80,000	\$82,000	\$84,000	\$86,000
Inter-Transfers	(\$312,000)	(\$260,000)	(\$208,000)	(\$156,000)	(\$104,000)	(\$52,000)
Subtotal Operating Expenses	\$4,847,000	\$5,205,000	\$5,228,000	\$5,254,000	\$5,289,000	\$5,542,000
Debt Service	\$940,157	\$1,172,125	\$1,382,141	\$1,592,141	\$1,801,886	\$1,801,303
Total Expenses	\$5,787,157	\$6,377,125	\$6,610,141	\$6,846,141	\$7,090,886	\$7,343,303

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Reserves

Figure 5: Utility Reserves



Established reserves include Operating Reserve, Replacement Reserve, Disaster Reserve, Rate Stabilization Reserve, and a required Debt Service Reserve. These robust reserves help mitigate risks to the utility by ensuring sufficient cash is on hand for daily operations and to fund annual system improvements. In addition, these reserves help smooth rates and mitigate rate spikes due to emergencies or above-average system costs. The most recent adopted reserve policies identify the function of each reserve, the minimum reserve requirements, and the ideal funding targets as summarized in Table 11.

Table 11: Reserve Requirements and Targets

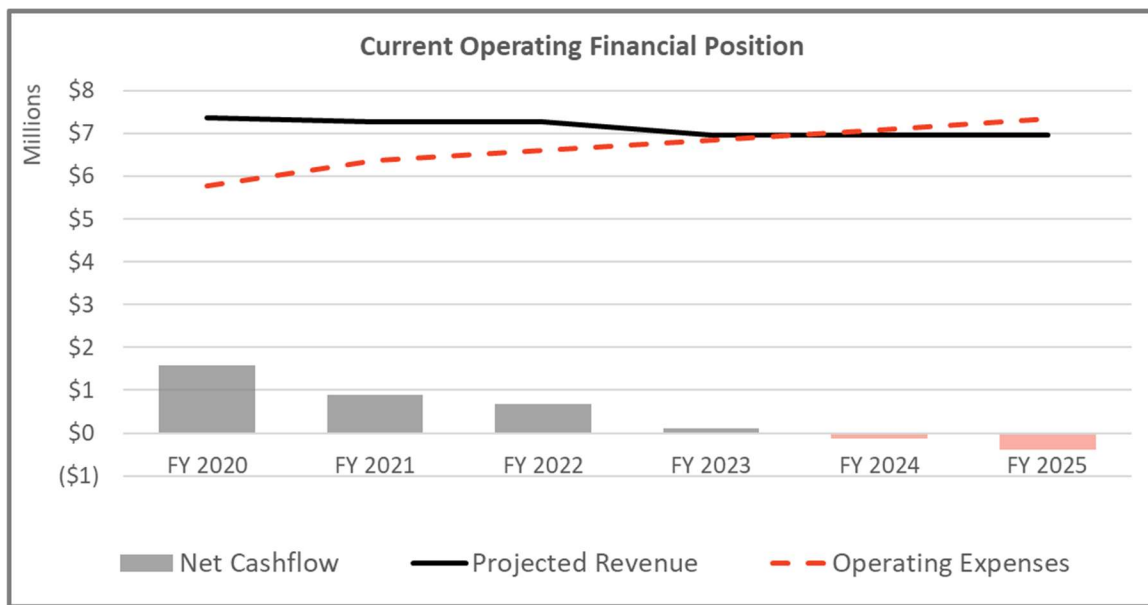
Reserve	Minimum Requirement	Reserve Target
Operating	3 months of operating costs	6 months of operating costs
Replacement	2 years of annual depreciation	4 years of annual depreciation
Rate Stabilization	5.0% of rate revenue	10% of rate revenue
Disaster	10% of Asset Value	20% of Asset Value
Debt	Upcoming fiscal year debt payment	

For FY 2020, the reserve balance (as of July 1, 2019) equaled approximately \$9.4M, which is slightly less than the minimum reserve target of \$11.6M. However, reserve funds were previously used as a loan to acquire additional water rights and the funds are being paid back through annual transfers. The remaining balance of the loan is \$4.7M.

Financial Outlook at Existing Rates

Calculating revenue using current rates and projecting expenses determines the financial health of the utility. Revenues generated from existing rates are sufficient to fund O&M through FY 2023; however, the increase in capital spending over the Rate Setting Period will generate pressure to increase rates. Only a portion of the system needs can be funded with projected net operating income resulting in the use of reserves to cover the remaining capital costs. Figure 6 illustrates the operating position of the utility, where O&M expenses are identified with the dashed red trendline and total revenues at current rates are shown by the horizontal black trendline. The bars represent the amount of net operating income available for capital spending and reserve funding.

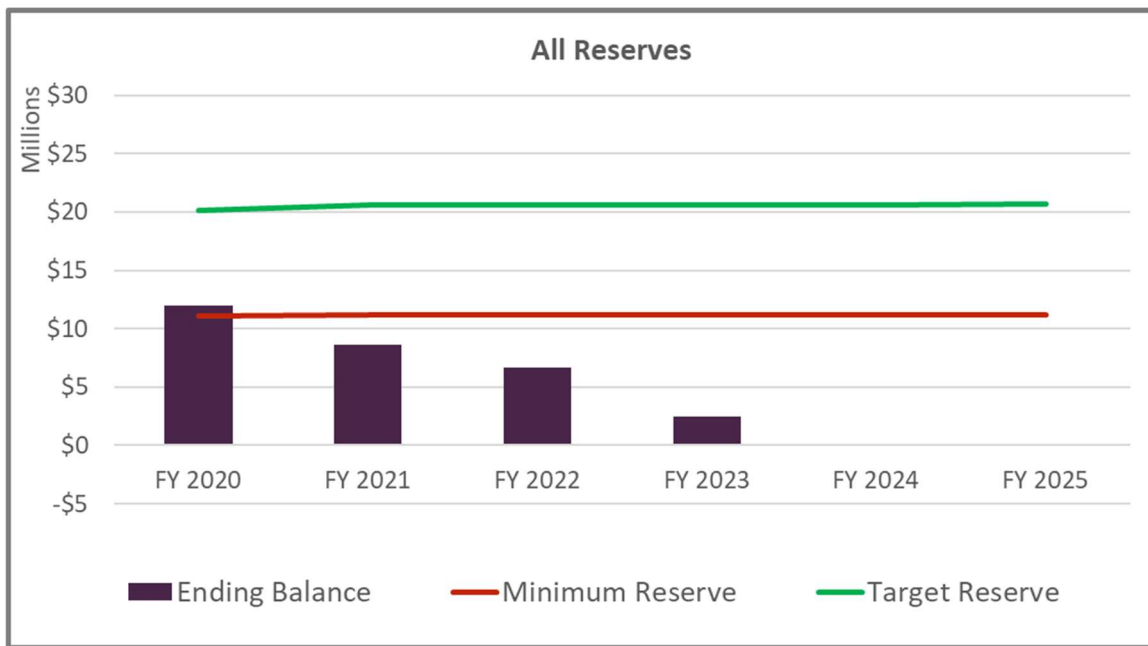
Figure 6: Current Operating Financial Position



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With the capital improvement plan reflecting more than \$18M in spending, as shown in Figure 2, reserves will be utilized to cover the remaining capital expenses to ensure necessary projects continue to move forward as scheduled. Figure 7 reflects the projected ending balances of reserves after operating and capital projects are funded through FY 2025. By FY 2024, reserves are depleted, and capital spending would not be available for ongoing system improvements.

Figure 7: Projected Ending Reserves at Current Rates



Proposed Financial Plan

From our financial outlook at existing rates, a proposed financial plan can be developed to adequately fund the multi-year revenue requirements, including satisfying debt covenants. Based on funding the capital plan over the Rate Setting Period and ensuring reserves meet minimum targets within the next five years, Table 12 forecasts projected revenue of the proposed financial plan, including modest revenue adjustments to generate additional revenue from rates through FY 2025.

Table 12: Proposed Financial Plan - Forecasted Revenues

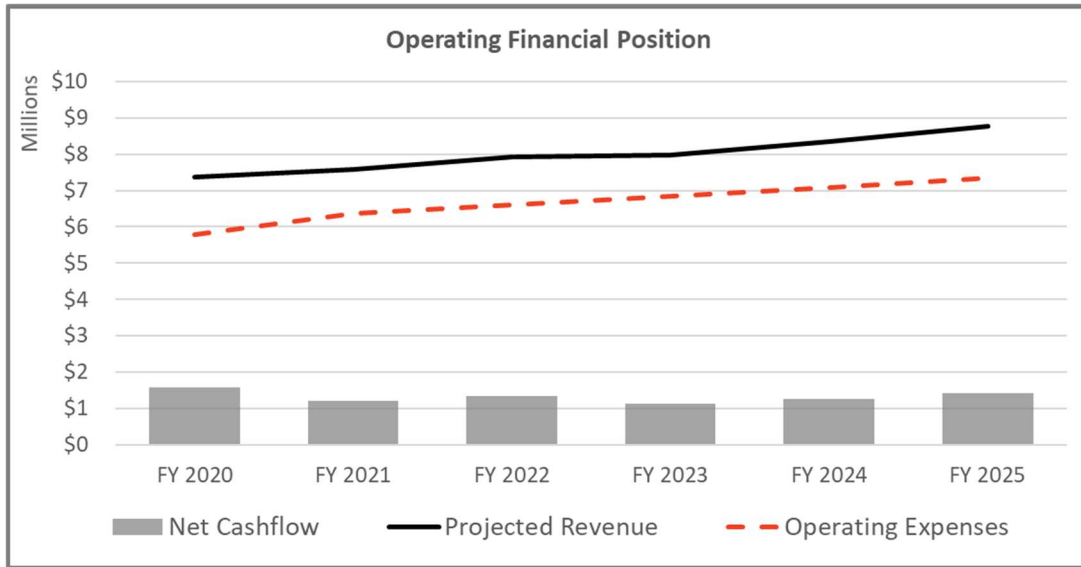
Revenue	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Water Billings						
Meter Charges	\$2,275,000	\$2,275,000	\$2,275,000	\$2,275,000	\$2,275,000	\$2,275,000
Water Consumption	\$3,045,000	\$3,045,000	\$3,045,000	\$3,045,000	\$3,045,000	\$3,045,000
Total Water Billings	\$5,320,000	\$5,320,000	\$5,320,000	\$5,320,000	\$5,320,000	\$5,320,000
	Fiscal Year	Revenue Adjustment	Effective Month			
	FY 2020	0.0%	July	\$0	\$0	\$0
	FY 2021	6.0%	July	\$0	\$319,000	\$319,000
	FY 2022	6.0%	July	\$338,000	\$338,000	\$338,000
	FY 2023	6.0%	July	\$359,000	\$359,000	\$359,000
	FY 2024	6.0%	July		\$380,000	\$380,000
	FY 2025	6.0%	July			\$403,000
Total Additional Revenue	\$0	\$319,000	\$657,000	\$1,016,000	\$1,396,000	\$1,799,000
Projected Water Billings	\$5,320,000	\$5,639,000	\$5,977,000	\$6,336,000	\$6,716,000	\$7,119,000
Meter Installation/Fees/Connections	\$115,728	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000
Other Operating Income	\$187,823	\$187,000	\$187,000	\$187,000	\$187,000	\$187,000
Non-Operating Revenues	\$1,736,949	\$1,645,931	\$1,655,931	\$1,335,000	\$1,340,000	\$1,345,000
Total Revenues	\$7,360,500	\$7,587,931	\$7,935,931	\$7,974,000	\$8,359,000	\$8,767,000

The proposed financial plan also includes debt financing through low-interest loans for funding the Civic Center project and the Chromium 6 improvements. The first loan is expected in FY 2021 for the Civic Center at a 4% interest rate over 30 years, followed by the Chromium 6 loan in FY 2022 at a 3% interest rate over 15 years. These debt instruments offer a means to finance system improvements over the useful life of the assets while providing inter-generational equity between existing customers and future customers that will both benefit from these improvements.

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Over the Rate Setting Period, the proposed financial plan reduces the reliance on property tax transfers from the general fund and pays back a portion of the water rights acquisition loans from reserves. Property tax transfers from the general fund are reduced annually by \$52k per year, with no further transfers needed by FY 2026. Within the five-year planning period, approximately \$3.5M will be transferred back to reserves leaving \$960k balance remaining, which would be transferred back to reserves outside the five-year planning period. Figure 8 identifies the operating position based on the proposed financial plan, and Figure 9 and Figure 10 shows the capital plan with funding sources and projected ending reserve balances, respectively.

Figure 8: Proposed Operating Position for FY 2020 – FY 2025



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Figure 9: Capital Improvement Plan with Funding Sources

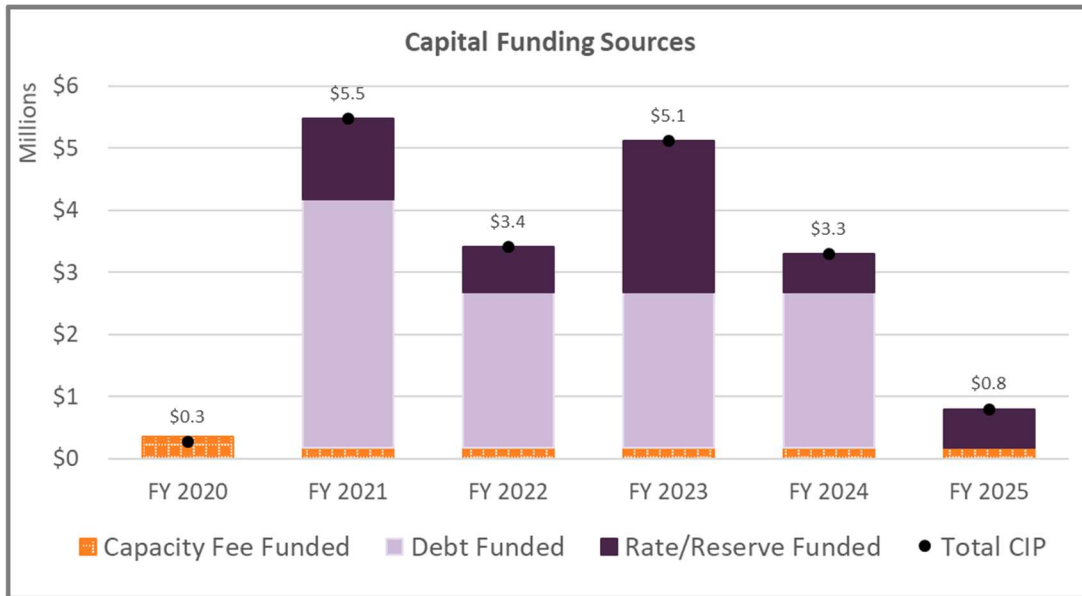
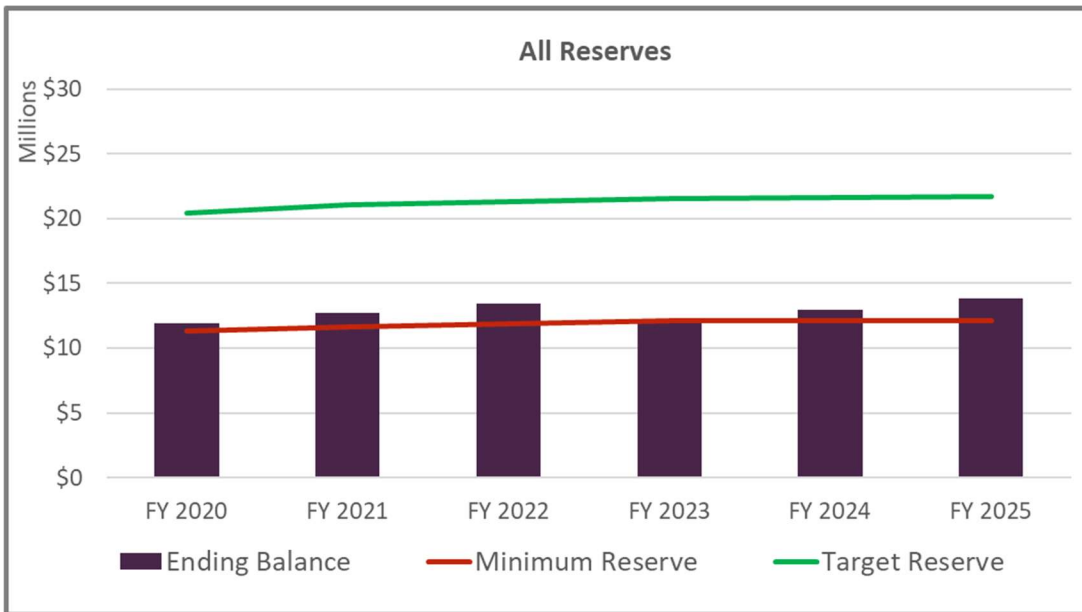


Figure 10: Proposed Ending Reserves for FY 2020 – FY 2025

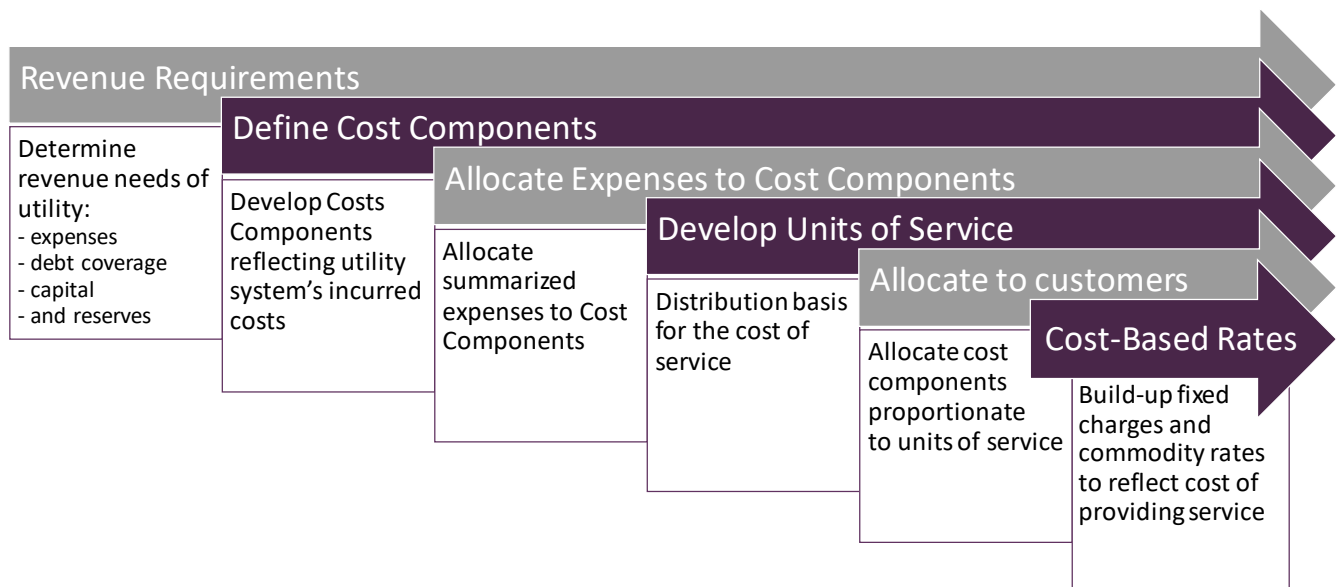


Cost of Service Analysis

Cost of Service Process

Based on the results of the proposed financial plan, the next step in developing rates is to perform a cost of service analysis. It is important to understand **how** costs are incurred in order to determine the most appropriate way to recover these costs. The following graphic summarizes the cost of service process. Through this process costs incurred are allocated to customer classes and tiers based on their proportional share. As a result, proposed rates are cost-based and reflects costs incurred by the utility to provide service to each customer class and corresponding account.

Figure 11: Cost of Service Process



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Revenue Requirements

With FY 2021 as the first year of the proposed rate schedule, revenue requirements are determined for FY 2021 and used for the cost of service. Revenue requirements include O&M expenses, debt service, available offsets from non-rate revenues, annual net income, and any mid-year adjustments if rates are implemented after the start of the fiscal year. Funding the capital plan and replenishing reserves to meet or exceed the minimum reserve requirement is achieved over the Rate Setting Period. Collectively, the proposed revenue adjustments and corresponding rates accumulate the necessary funding over the Rate Setting Period to fund the scheduled capital projects and comply with minimum reserve requirements. The results of the financial plan analysis are summarized in Table 13 and represent the revenue required from rates for FY 2021. A detailed proposed financial plan is included as Appendix 1 attached to this report.

Table 13: FY 2021 Revenue Requirements

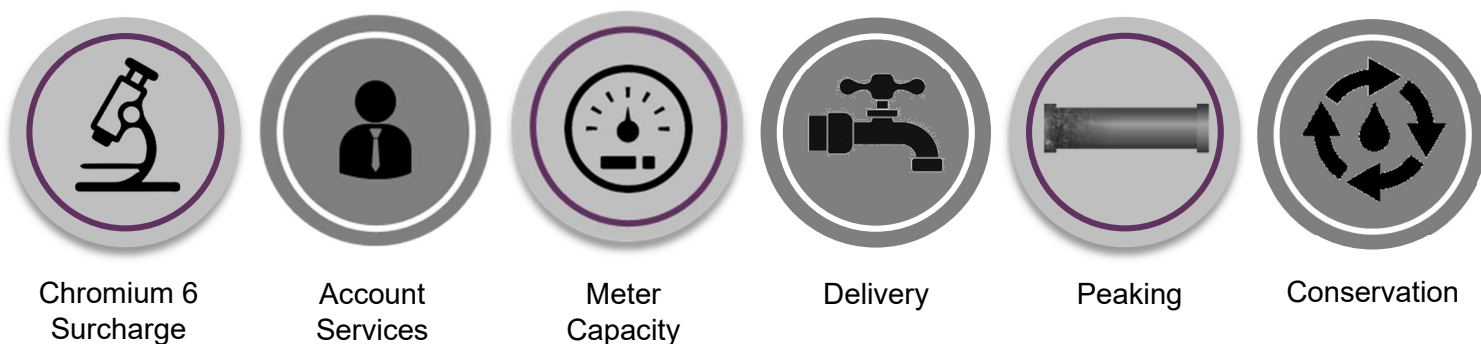
Line #	Revenue Requirements	Specific	Operating	Debt	Total
District O&M					
1	Administration		\$1,463,000		\$1,463,000
2	Chromium 6 Mitigation	\$809,000			\$809,000
3	Conservation		\$60,000		\$60,000
4	Customer Accounts/Meters		\$623,000		\$623,000
5	Distribution/Transmission		\$674,000		\$674,000
6	Engineering		\$296,000		\$296,000
7	Operations		\$694,000		\$694,000
8	Production		\$617,000		\$617,000
9	Supply		\$13,000		\$13,000
10	Vehicles and Equipment		\$138,000		\$138,000
11	Water Quality		\$78,000		\$78,000
12	Transfers		(\$260,000)		(\$260,000)
15	Total District O&M	\$809,000	\$4,396,000	\$0	\$5,205,000
Debt Service					
16	Existing Debt			\$939,642	\$939,642
17	Civic Center			\$232,483	\$232,483
18	Total Debt Service	\$0	\$0	\$1,172,125	\$1,172,125
19	Total Operating Expenses	\$809,000	\$4,396,000	\$1,172,125	\$6,377,125
Revenue Offsets					
20	Misc Fees		(\$116,000)		(\$116,000)
21	Other Operating Income		(\$187,000)		(\$187,000)
22	Non-Operating Revenues	(\$809,000)	(\$836,931)		(\$1,645,931)
23	Total Revenue Offsets	(\$809,000)	(\$1,139,931)	\$0	(\$1,948,931)
Adjustments					
24	Adjustment for Net Income		\$1,210,806		\$1,210,806
25	Total Adjustments	\$0	\$1,210,806	\$0	\$1,210,806
26	Revenue Requirements	\$0	\$4,466,875	\$1,172,125	\$5,639,000

The revenue requirements were separated into three categories as shown above. The specific column represents costs or revenues that are restricted in some way and, therefore, should not be impacted by general revenue offsets, net income, or revenue adjustments. The two remaining columns, operating and debt, are intended to capture costs related to operating and system improvements. Revenue offsets and adjustments can be applied to any column depending on their nature. Operating Revenue Requirements include all O&M expenses except Chromium 6, less revenue offsets and adjustment for net income. Debt Revenue Requirements include existing and proposed debt.

Define Cost Components

The utility incurs costs to accommodate total water demand, peak demands that vary throughout the year, days, and hours. Therefore, to determine the most appropriate way to recover the utility's expenses, cost components are identified to allocate expenses based on how it's incurred. Through our review of the revenue requirements and our understanding of the utility system, it is appropriate and reasonable to utilize the base-extra capacity methodology outlined in the American Water Works Association M1 Manual. This methodology accounts for the utility's costs as a function of meeting both total volume and peak use demands. As an example, if a utility's average use and peak use were equivalent, the utility system could be sized solely to accommodate the average demand on the system. However, customer water use peaks at different times of the day, such as the morning when everyone wakes up, evenings when customers are home from work / school, and different times of the year as outdoor water needs fluctuate based on the weather. The cost components shown in Figure 12 reflect the cost components used within this study.

Figure 12: Cost Components



Chromium 6 Surcharge – Specific expenses associated with Chromium 6 Mitigation that will remain constant over the 5-year planning period.

Account Services – Fixed expenses that do not necessarily fluctuate based on usage nor is a function of meter size. These expenses include customer call center, billing and other expenses that are incurred based on having an account.

Meter Capacity – Expenses associated with capital and administration of the system.

Delivery – Operating and capital expenses of the water system associated with serving customers at a constant average use or average daily demand. These costs tend to vary with the total water used.

Peaking – Expenses incurred to meet customer peak demands in excess of average day usage.

Conservation – Expenses associated with the conservation and rebate programs which are tracked as a separate division.

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The Chromium 6 Surcharge will remain in place as capital projects associated with the Chromium 6 Mitigation are part of the current five-year capital plan. Therefore, a distinct Cost Component for Chromium 6 is included to develop a separate fixed surcharge.

The analysis herein establishes cost components for developing monthly fixed charges and utilizes the base-extra capacity method for developing consumption-based charges. Total volume and usage patterns of customers within each customer class and tier are analyzed to proportionately allocate expenses based on total usage and peak demands. Peak demand is a function of Max Day Demand (Max Day) and Max Hour Demand (Max Hour) placed on the system in comparison to average Day Demand (Avg Day). The system is configured with various distribution and transmission lines ranging in size from 4" diameter to 16" diameter. This provides for the fire flow demand inherent to a utility system and accounts for peak water demands generated by how customers use water in excess of Avg Day. Max Day is the maximum amount of water used in a single day of a calendar year and Max Hour reflects the peak hourly use on the system in comparison to Avg Day.

Allocate Expenses to Cost Components

Utilizing these cost components allow us to distribute the total revenue requirements to the various customer classes reflecting the cost of providing service. Using this approach provides a nexus between the costs incurred and the proposed rates by meter size and customer class. When allocating expenses to the defined costs components, it's important to have a sound basis as to why an expense was allocated to a certain fixed cost component versus a variable cost component or split between both fixed and variable. The allocation of expenses to the cost components should be straight-forward to ensure the method of apportionment is understandable and easily correlates to how expenses are incurred. A description of each expense category is identified on the next page.

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Expense Categories:

- Administration* – General and overhead costs, including the Board, legal services, personnel and supplies
- Chromium 6 Mitigation* – Costs associated with Chromium 6 improvements, including planning, design, construction, and ongoing maintenance
- Conservation* – Costs associated with conservation programs, including personnel, advertising, and supplies
- Customer Accounts/Meters* – Costs associated with customer service and billing
- Distribution/Transmission* – Costs associated with system maintenance, personnel, supplies and tools
- Engineering* – Costs associated with the engineering department, including personnel, supplies, training, software, and travel
- Operations* – Costs associated with the daily operations of the utility, including personnel, repairs, supplies, software, insurance, and taxes
- Production* – Costs associated with groundwater production, including electricity, personnel, supplies, and insurance. Solar credits are also included as part of Production
- Supply* – Costs associated with MWA/Antelope water transfers
- Vehicles and Equipment* – Costs associated with rentals, vehicles, insurance, maintenance, and fuel
- Water Quality* – Costs associated with testing, including personnel, equipment, and laboratory analysis
- Transfers* – Property tax transfers from general fund, determined by the Board, to offset expense
- Debt* – Existing and proposed debt payments to fund capital assets, including water rights

To allocate costs to Avg Day (Delivery) and Max Day / Max Hour (collectively, Peaking), system peaking factors are used. Avg Day is assigned a value of 1.0 signifying no peaking demands. The Max Day and Max Hour factors shown in Table 14 were based on the Water Master Plan. A Max Day factor of 2.0 means that the system delivers approximately 2.0 times the average daily demand during a peak day. Therefore, the Avg Day factor of 1.0 makes up 50% of Max Day ($1.0 / 2.0 = 0.5$). The Max Hour factor of 1.7 times the Max Day, generates 3.4 times the average daily hourly demand ($1.7 \times 2.0 = 3.4$). With Max Hour, the Avg Day factor of 1.0 makes up 29% of Max Hour ($1.0 / 3.4 = 0.29$), with the increment related to Max Day making up another 29%. These peaking factors and corresponding allocations provide a means to spread costs incurred as a function of serving Max Day and Max Hour proportionately between Delivery and Peaking.

Table 14: System Peaking Factors and Distribution Basis

System Peak	Factor	Avg Day [A]	Max Day [B]	Max Hour [C]	Delivery [D] = [A]	Peaking [E] = [B+C]
Avg Day	1.00	100.0%	0.0%	0.0%	100.0%	0.0%
Max Day	2.00	50.0%	50.0%	0.0%	50.0%	50.0%
Max Hour	3.40	29.4%	29.4%	41.2%	29.4%	70.6%

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Table 15 summarizes the allocation of Specific and Operating expenses to the cost components, including the offset to Specific from the separate fixed surcharge that will be established.

Table 15: O&M Expense Allocation to Cost Components (%)

Allocation Basis	Expense Categories	Chromium 6 Surcharge	Account Services	Meter Capacity	Delivery	Peaking	Conservation
Direct	Administration			100.0%			
Direct	Chromium 6 Mitigation	100.0%					
Direct	Conservation						100.0%
Direct	Customer Accounts/Meters		100.0%				
Max Hour	Distribution/Transmission				29.4%	70.6%	
Max Day	Engineering				50.0%	50.0%	
Max Day	Operations				50.0%	50.0%	
Max Day	Production				50.0%	50.0%	
Avg Day	Supply				100.0%		
Avg Day	Vehicles and Equipment				100.0%		
Avg Day	Water Quality				100.0%		
Direct	Inter-Transfers			100.0%			
Direct	Chromium 6 Surcharge	100.0%					

The percent allocations listed in Table 15 are used to allocate expenses to each cost component shown in Table 16.

Table 16: O&M Expense Allocation to Cost Components (\$)

Functionalized Expenses	Chromium 6 Surcharge	Account Services	Meter Capacity	Delivery	Peaking	Conservation
Administration			\$1,463,000			
Chromium 6 Mitigation	\$809,000					
Conservation						\$60,000
Customer Accounts/Meters		\$623,000				
Distribution/Transmission				\$198,235	\$475,765	
Engineering				\$148,000	\$148,000	
Operations				\$347,000	\$347,000	
Production				\$308,500	\$308,500	
Supply				\$13,000		
Vehicles and Equipment				\$138,000		
Water Quality				\$78,000		
Inter-Transfers			(\$260,000)			
Chromium 6 Surcharge	(\$809,000)					
Total Allocation (\$)	\$0	\$623,000	\$1,203,000	\$1,230,735	\$1,279,265	\$60,000
O&M Allocation (%)	0.0%	14.2%	27.4%	28.0%	29.1%	1.4%

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For the Debt Revenue Requirement, the systems asset value by function is used as a proxy to allocate debt costs to the Cost Components based on the current configuration of the system. This provides a long-term perspective with the allocation of capital costs and mitigates the potential of significant spikes that may arise when only considering current debt funded projects. Over time, the entire system will be replaced and allocating current asset values by system function to the cost components is an equitable means for allocate ongoing debt service. Table 17 identifies the system asset allocations to Cost Components and corresponding percent of total value.

Table 17: System Functional Asset Values to Cost Components

	Functional Assets	Meter Capacity	Delivery	Peaking
Direct	Buildings	100.0%		
Direct	Equipment & Other		100.0%	
Direct	Hydrants	100.0%		
Direct	Land	100.0%		
Direct	Meters	100.0%		
Avg Day	Pumping		100.0%	
Max Day	Storage		50.0%	50.0%
Max Hour	Transmission and Distribution		29.4%	70.6%
Avg Day	Water Rights	100.0%		
Max Day	Wells		50.0%	50.0%
	<i>Buildings</i>	<i>\$4,906,162</i>		
	<i>Equipment & Other</i>		<i>\$3,372,479</i>	
	<i>Hydrants</i>			
	<i>Land</i>	<i>\$1,719,295</i>		
	<i>Meters</i>	<i>\$172,196</i>		
	<i>Pumping</i>		<i>\$1,947,038</i>	
	<i>Storage</i>		<i>\$1,860,857</i>	<i>\$1,860,857</i>
	<i>Transmission and Distribution</i>		<i>\$2,450,349</i>	<i>\$5,880,838</i>
	<i>Water Rights</i>	<i>\$18,789,582</i>		
	<i>Wells</i>		<i>\$2,060,913</i>	<i>\$2,060,913</i>
	Total Allocation (\$)	\$25,587,235	\$11,691,637	\$9,802,608
	Capital Allocation (%)	54.3%	24.8%	20.8%

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The specific and operating expenses were allocated in Table 16 and are summarized below in Table 18. The debt requirements were allocated using the percentages developed in Table 17. Finally, the revenue offsets, less the Chromium 6 surcharge, and adjustments were applied based on O&M allocations as shown by the percentages in Table 16.

Table 18: FY 2021 Cost of Service Requirements

FY 2021 Revenue Requirement	Fixed			Variable			Total
	Chromium 6 Surcharge	Account Services	Meter Capacity	Delivery	Peaking	Conservation	
Specific	\$809,000	\$0	\$0	\$0	\$0	\$0	\$809,000
Operating	\$0	\$623,000	\$1,203,000	\$1,230,735	\$1,279,265	\$60,000	\$4,396,000
Debt	\$0	\$0	\$637,011	\$291,071	\$244,042	\$0	\$1,172,125
Revenue Offset and Adjustments	(\$809,000)	\$10,044	\$19,396	\$19,843	\$20,625	\$967	(\$738,125)
COS Requirement	\$0	\$633,044	\$1,859,407	\$1,541,649	\$1,543,932	\$60,967	\$5,639,000

Rate Design

Develop Units of Service

Unit rates for the cost components are derived by identifying the units of service for each cost component (distribution basis). This approach provides a clear connection between costs incurred and the proportionate share attributable to the various customer classes. When designing rates, the most critical component is to connect the proposed rates to the costs incurred, resulting in a rate structure that is cost-based and in compliance with Proposition 218. In the previous section, costs were summarized by expense category and allocated to cost components based on how each cost is incurred. The next step in designing rates is to apportion the full amount of each cost component to customers in relation to their use of the system and facilities. The method of apportionment considers each customer class' proportionate share of system costs and is reflected by the units of service used to equitably distribute the costs to each customer class and corresponding account. The distribution basis varies by cost component and include, total accounts, Meter Equivalents (MEs), total water sales by customer class and tier, and peaking weighted by total usage. Table 19 and Table 20 provide the units of service separated between account based units of service (Table 19) and usage based units of service (Table 20).

Table 19: Accounts and Meter Equivalents

Line #	Meter Size	AWWA Capacity (gpm)	Capacity Factor [A]	Total Accounts [B]	Total Meter Equivalents [C] = A x B
1	5/8"	20	1.00	-	-
2	3/4"	30	1.00	1,904	1,904
3	1"	50	1.67	4,955	8,258
4	1 1/2"	100	3.33	30	100
5	2"	160	5.33	48	256
6	3"	350	11.67	2	23
7	4"	630	21.00	1	21
8	Total			6,940	10,563
9	Annual Units of Service (Line 8 x 12)			83,280	126,752

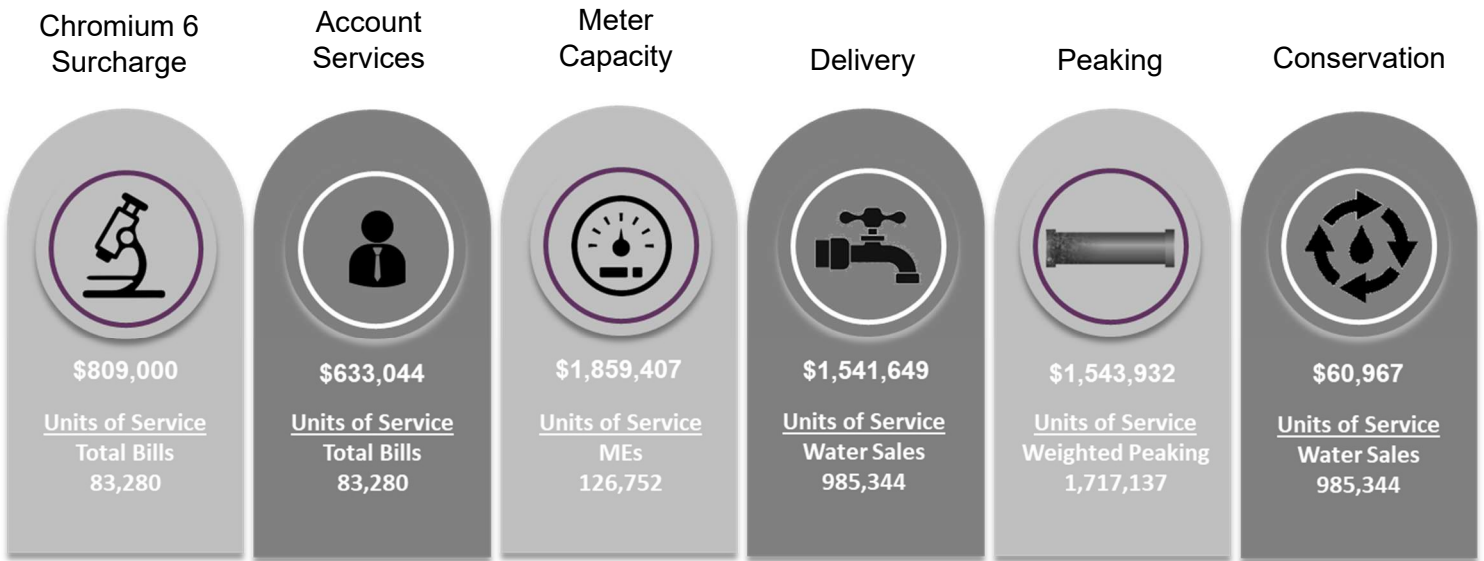
Table 20: Customer Class Usage and Weighted Peaking Factor

Allocation to Customer Class	Projected Usage [A]	Peaking Factor [B]	Weighted Peaking [C] = A x B
Residential	885,809	1.71	1,511,492
Commercial	5,713	1.58	9,007
Institutional	93,822	2.10	196,638
	985,344		1,717,137

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With the units of service shown in Table 19 and Table 20, the distribution basis can be identified for each cost component. Figure 13 identifies the total revenue requirements by cost component from Table 18 and the corresponding units of service.

Figure 13: Distribution Basis and Units of Service by Cost Component



Allocation to Customer Class

With the FY 2021 revenue requirements allocated to components, the cost of service allocates expenses to each customer class and corresponding account based on the service demands that each place on the system (cost causation). This ensures that each customer class proportionately shares in the financial obligation of the utility. For the following unit rate computations for each cost component, unit rates were rounded up to the nearest penny.

Fixed Cost Recovery

Chromium 6 Surcharge

The Chromium 6 Surcharge will continue at the current cost recovery. Therefore, the revenue requirement for Chromium 6 equal to \$809,000 is apportioned based on total bills to determine the monthly unit cost of service shown in Table 21.

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Table 21: FY 2021 Chromium 6 Surcharge Cost of Service Monthly Unit Rate

Customer Class	Total Bills	% Allocation	Revenue Requirement	Unit Rate
Residential	82,404	98.9%	\$800,490	\$9.71
Commercial	492	0.6%	\$4,779	\$9.71
Institutional	384	0.5%	\$3,730	\$9.71
Total	83,280	100.0%	\$809,000	

Account Services

Account Service costs are incurred at the same level regardless of the type of land use, meter size, or total amount of water used in a month. Therefore, the revenue requirement for Account Services is apportioned based on the total bills to determine the monthly unit cost of service shown in Table 22.

Table 22: FY 2021 Account Services Cost of Service Monthly Unit Rate

Customer Class	Total Bills	% Allocation	Revenue Requirement	Unit Rate
Residential	82,404	98.9%	\$626,386	\$7.61
Commercial	492	0.6%	\$3,740	\$7.61
Institutional	384	0.5%	\$2,919	\$7.61
Total	83,280	100.0%	\$633,044	

Meter Capacity

The Meter Capacity Component includes system wide costs and a portion of debt. The revenue requirement for Meter Capacity is apportioned based on meter size. Larger sized meters can generate a greater demand on the system from the amount of potential water flow that may pass through the meter in gallon per minute (gpm). Meter equivalents were used to create parity among the various meter sizes ranging from 3/4" to 4". In Table 19 each meter size was assigned an equivalency factor based on the flow characteristics of a 3/4" meter based on the safe maximum operating flow capacity by meter type, as identified in the AWWA M1 Manual, 6th Edition, Table B-2. The safe maximum operating flow capacity for each meter was divided by the base meters safe operating flow capacity of 30 gpm to determine the equivalent meter ratio. The Capacity Factors in Table 19 represent the potential flow through each meter size compared to the flow through a 3/4" meter to establish parity between meter sizes. Total MEs are determined by multiplying the number of meters by the Capacity Factors and then multiplying the result by 12 billing periods (Table 19, Line 9). The revenue requirement for Meter Capacity is then apportioned based on meter size as represented by total MEs and summarized in Table 23.

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Table 23: FY 2021 Meter Capacity Cost of Service Monthly Unit Rate

Customer Class	Meter Equivalents	% Allocation	Revenue Requirement	Unit Rate Per ME
Residential	123,876	97.7%	\$1,817,217	\$14.67
Commercial	880	0.7%	\$12,909	\$14.67
Institutional	1,996	1.6%	\$29,281	\$14.67
Total	126,752	100.0%	\$1,859,407	

Variable Cost Recovery

Delivery

Delivery costs are incurred based on total volume of water produced and delivered to customers at a constant average demand throughout the year. Therefore, the revenue requirement for Delivery is apportioned based on projected usage identified in Table 20 to determine the unit cost of service irrespective of customer class or tier. The proportionate share of revenue requirement responsibility for each customer class is shown in Table 24.

Table 24: FY 2021 Delivery Cost of Service Unit Rate by Customer Class

Customer Class	All Usage	% Allocation	Revenue Requirement	Unit Rate
Residential	885,809	89.9%	\$1,385,919	\$1.57
Commercial	5,713	0.6%	\$8,938	\$1.57
Institutional	93,822	9.5%	\$146,792	\$1.57
Total	985,344	100.0%	\$1,541,649	\$1,546,990

Peaking

Peaking costs are incurred not only based on total volume of water produced and delivered but also as a function of the peaking characteristics of customers and tiers. Therefore, the revenue requirement for Peaking is apportioned by weighting each customer class's peaking factor by total usage generating the peaking characteristic derived in Table 20. The proportionate share of revenue requirement responsibility for each customer class is shown in Table 25.

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Table 25: FY 2021 Peaking Revenue Requirement by Customer Class

Allocation to Customer Class	Projected Usage [A]	Weighted Peaking [B]	% Allocation [C]	Peaking Revenue Requirement [D]	Unit Rate by Customer Class [E] = D / A
Residential	885,809	1,511,492	88.0%	\$1,359,031	<i>Further Allocated to Tiers</i>
Commercial	5,713	9,007	0.5%	\$8,099	\$1.42
Institutional	93,822	196,638	11.5%	\$176,803	\$1.89
		1,717,137	100.0%	\$1,543,932	

Tiered Usage and Peaking for Apportioning Variable Revenue Requirements

When developing a tiered rate structure, the first step is to determine the breakpoints between tiers before allocating variable revenue requirements to each tier. A comprehensive consumption analysis was conducted on FY 2019 usage data that examined usage of each account for every month of the fiscal year. This consumption analysis provided the peaking characteristics by customer class in Table 20 and provides an understanding on the usage trends of customers by customer class and tier. Based on the review of Residential account, the average monthly usage throughout the year on a per account basis is 10.39 hcf. Therefore, an adjustment is recommended to current the Tier 1 breakpoint of 12 hcf by reducing the tier down to 11 hcf, which captured the annual average use of Residential accounts. Tier 2 would capture any peak usage above the new average annual demand.

For the peaking unit rate between Residential tiers, the revenue requirement assigned to Residential in Table 25 is further apportioned to the two tiers based on the peaking characteristics exhibited by each tier. To establish a nexus for the allocation of peak costs between tiers, peaking factors must be determined at the tier level. As part of the consumption analysis, Residential accounts were grouped on a monthly basis between accounts that remained in Tier 1 and accounts that fell into Tier 2. Through this grouping of accounts on a monthly basis, we can identify the amount of total usage within each tier from “Tier 1 Customers” and “Tier 2 Customers” as well as the peaking characteristic of Tier 2 Customers when compared to the Tier 1 Allotment of 11 hcf. This detailed usage analysis provides a nexus for allocating cost between tiers, by weighting the tier peaking factors by the usage within each tier, similar to how the Peaking revenue requirement was first apportioned between customer classes. Table 26 provides the usage characteristics by Residential Tier and the peaking factor for Tier 2 when compared to the Tier 1 allotment. Peaking unit rates for each tier are then determined by taking the Tier revenue requirement divided by usage within each tier.

Table 26: FY 2021 Residential Peaking Revenue Requirement by Tier

Allocation to Tiers	Projected Usage	Peaking Factor	Weighted Peak	% Allocation	Revenue Requirement	Unit Rate
Residential						
Tier 1	542,417	1.00	542,417	42.6%	\$578,679	\$1.07
Tier 2	343,392	2.13	731,454	57.4%	\$780,352	\$2.28
Total	885,809		1,273,871	100.0%	\$1,359,031	

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Conservation

Conservation revenue requirements are first apportioned to each customer class based on usage as shown in Table 27. Commercial and Institutional unit rates were determined by spreading the allocated requirement over the projected usage.

Table 27: FY 2021 Conservation Revenue Requirement by Customer Class

Allocation to Customer Class	Projected Usage [A]	% Allocation [B]	Conservation Revenue Requirement [C]	Unit Rate by Customer Class [E] = D / A
Residential	885,809	89.90%	\$54,809	<i>Further Allocated to Tiers</i>
Commercial	5,713	0.58%	\$353	\$0.07
Institutional	93,822	9.52%	\$5,805	\$0.07
	985,344	100.00%	\$60,967	

The revenue requirement allocated to Residential was further apportioned between tiers. Table 28 identifies how the Residential revenue requirement is recovered over the tiers, with the entire revenue requirement recovered over Tier 2 as conservation programs are aimed to mitigate usage in Tier 2.

Table 28: FY 2021 Residential Conservation Revenue Requirement by Tier

Residential Tiers	Total Usage	Allocation Factor	% Allocation	Revenue Requirement	Unit Rate by Tier
Tier 1	542,417	0.00	0.0%	\$0.0	N/A
Tier 2	343,392	1.00	100.0%	\$54,809	\$0.16
	885,809		100.0%	\$54,809	

Cost-Based Rates

Proposed Monthly Fixed Charges

The proposed monthly fixed charges for FY 2021 are shown in Table 29, reflecting the combined charges of Account Services and Meter Capacity. Table 30 and Table 31 provide the 5-year fixed charge schedule through FY 2025, with Chromium 6 Surcharge remaining constant through the Rate Setting Period. For FY 2022 through FY 2025, the revenue adjustments are applied across-the-board to the cost of service rates derived for FY 2021 as account growth and usage characteristics are projected to remain constant for financial planning.

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Table 29: FY 2021 Monthly Fixed Charges

Meter Size	Account Services [A]	Capacity Factor [B]	Meter Capacity [C]	FY 2021 Fixed Charges [D] =A+C	Current Rates
3/4"	\$7.61	1.00	\$14.67	\$22.28	\$19.16
1"	\$7.61	1.67	\$24.45	\$32.06	\$29.56
1 1/2"	\$7.61	3.33	\$48.90	\$56.51	\$55.54
2"	\$7.61	5.33	\$78.24	\$85.85	\$86.72
3"	\$7.61	11.67	\$171.15	\$178.76	\$159.47
4"	\$7.61	21.00	\$308.07	\$315.68	\$263.41

Table 30: FY 2021 through FY 2022 Monthly Chromium 6 Surcharges

Chromium 6 Surcharge (\$/Month)					
Meter Size	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
5/8"	\$9.71	\$9.71	\$9.71	\$9.71	\$9.71
3/4"	\$9.71	\$9.71	\$9.71	\$9.71	\$9.71
1"	\$9.71	\$9.71	\$9.71	\$9.71	\$9.71
1 1/2"	\$9.71	\$9.71	\$9.71	\$9.71	\$9.71
2"	\$9.71	\$9.71	\$9.71	\$9.71	\$9.71
3"	\$9.71	\$9.71	\$9.71	\$9.71	\$9.71
4"	\$9.71	\$9.71	\$9.71	\$9.71	\$9.71

Table 31: FY 2021 through FY 2022 Monthly Fixed Charges

Meter Fixed Charges (\$/Month)					
Meter Size	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
5/8"	\$22.28	\$23.62	\$25.04	\$26.55	\$28.15
3/4"	\$22.28	\$23.62	\$25.04	\$26.55	\$28.15
1"	\$32.06	\$33.99	\$36.03	\$38.20	\$40.50
1 1/2"	\$56.51	\$59.91	\$63.51	\$67.33	\$71.37
2"	\$85.85	\$91.01	\$96.48	\$102.27	\$108.41
3"	\$178.76	\$189.49	\$200.86	\$212.92	\$225.70
4"	\$315.68	\$334.63	\$354.71	\$376.00	\$398.56

Proposed Variable Charges by Customer Class and Tier

The proposed variable rates for FY 2021 are shown in Table 32, reflecting the combined rates of Delivery, Peaking and Conservation. The table lists each rate by billing code within the billing system. Table 33

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provides the 5-year variable rate schedule through FY 2025. For FY 2022 through FY 2025, the revenue adjustments are applied across-the-board to the cost of service rates derived for FY 2021 as account growth and usage characteristics are projected to remain constant for financial planning.

Table 32: FY 2021 Variable Rates by Customer Class and Tier

Customer Class	Delivery [A]	Peaking [B]	Conservation [C]	FY 2021 Variable Rates [D] = A+B+C	Current Rates
Residential					
Tier 1	\$1.57	\$1.07	\$0.00	\$2.64	\$2.53
Tier 2	\$1.57	\$2.28	\$0.16	\$4.01	\$4.00
Multi-Family Residential					
Tier 1	\$1.57	\$1.07	\$0.00	\$2.64	\$2.53
Tier 2	\$1.57	\$2.28	\$0.16	\$4.01	\$4.00
Commercial	\$1.57	\$1.42	\$0.07	\$3.06	\$3.02
Commercial 2					
Tier 1	\$1.57	\$1.07	\$0.00	\$2.64	\$2.53
Tier 2	\$1.57	\$2.28	\$0.16	\$4.01	\$4.00
Institutional	\$1.57	\$1.89	\$0.07	\$3.53	\$3.21

Table 33: FY 2021 through FY 2025 Variable Rates by Customer Class and Tier

Variable Rates (\$/hcf)					
Customer Class	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Residential					
Tier 1	\$2.64	\$2.80	\$2.97	\$3.15	\$3.34
Tier 2	\$4.01	\$4.26	\$4.52	\$4.80	\$5.09
Multi-Family Residential					
Tier 1	\$2.64	\$2.80	\$2.97	\$3.15	\$3.34
Tier 2	\$4.01	\$4.26	\$4.52	\$4.80	\$5.09
Commercial	\$3.06	\$3.25	\$3.45	\$3.66	\$3.88
Commercial 2					
Tier 1	\$2.64	\$2.80	\$2.97	\$3.15	\$3.34
Tier 2	\$4.01	\$4.26	\$4.52	\$4.80	\$5.09
Institutional	\$3.53	\$3.75	\$3.98	\$4.22	\$4.48

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Appendices: A – 1 Cashflow Pro Forma

Revenue	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Water Billings						
Meter Charges	\$2,275,000	\$2,275,000	\$2,275,000	\$2,275,000	\$2,275,000	\$2,275,000
Water Consumption	\$3,045,000	\$3,045,000	\$3,045,000	\$3,045,000	\$3,045,000	\$3,045,000
Total Water Billings	\$5,320,000	\$5,320,000	\$5,320,000	\$5,320,000	\$5,320,000	\$5,320,000
Total Additional Revenue	\$0	\$319,000	\$657,000	\$1,016,000	\$1,396,000	\$1,799,000
Projected Water Billings	\$5,320,000	\$5,639,000	\$5,977,000	\$6,336,000	\$6,716,000	\$7,119,000
Meter Installation/Fees/Connections	\$115,728	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000
Other Operating Income	\$187,823	\$187,000	\$187,000	\$187,000	\$187,000	\$187,000
Non-Operating Revenues	\$1,736,949	\$1,645,931	\$1,655,931	\$1,335,000	\$1,340,000	\$1,345,000
Total Revenues	\$7,360,500	\$7,587,931	\$7,935,931	\$7,974,000	\$8,359,000	\$8,767,000
O&M Expenses						
Operating Expenses						
Administration	\$1,412,000	\$1,463,000	\$1,517,000	\$1,572,000	\$1,629,000	\$1,689,000
Chromium 6 Mitigation	\$809,000	\$809,000	\$599,000	\$388,000	\$178,000	\$178,000
Conservation	\$59,000	\$60,000	\$61,000	\$62,000	\$63,000	\$64,000
Customer Accounts/Meters	\$597,000	\$623,000	\$650,000	\$677,000	\$705,000	\$734,000
Distribution/Transmission	\$516,000	\$674,000	\$699,000	\$725,000	\$752,000	\$780,000
Engineering	\$284,000	\$296,000	\$309,000	\$322,000	\$337,000	\$352,000
Operations	\$666,000	\$694,000	\$724,000	\$755,000	\$787,000	\$821,000
Production	\$592,000	\$617,000	\$643,000	\$670,000	\$698,000	\$727,000
Supply	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000
Vehicles and Equipment	\$135,000	\$138,000	\$141,000	\$144,000	\$147,000	\$150,000
Water Quality	\$76,000	\$78,000	\$80,000	\$82,000	\$84,000	\$86,000
Inter-Transfers	(\$312,000)	(\$260,000)	(\$208,000)	(\$156,000)	(\$104,000)	(\$52,000)
Subtotal Operating Expenses	\$4,847,000	\$5,205,000	\$5,228,000	\$5,254,000	\$5,289,000	\$5,542,000
Debt Service						
Existing Debt	\$940,157	\$939,642	\$939,190	\$938,721	\$937,997	\$937,413
Civic Center	\$0	\$232,483	\$232,483	\$232,483	\$232,483	\$232,483
Chromium Debt	\$0	\$0	\$210,469	\$420,938	\$631,406	\$631,406
Subtotal Debt Service	\$940,157	\$1,172,125	\$1,382,141	\$1,592,141	\$1,801,886	\$1,801,303
Total Expenses	\$5,787,157	\$6,377,125	\$6,610,141	\$6,846,141	\$7,090,886	\$7,343,303
Net Cashflow	\$1,573,343	\$1,210,806	\$1,325,789	\$1,127,859	\$1,268,114	\$1,423,697
Direct Transfers to Reserves						
Replacement Reserve	(\$160,000)	(\$160,000)	(\$160,000)	(\$160,000)	(\$160,000)	(\$160,000)
Disaster Reserve	(\$160,000)	(\$160,000)	(\$160,000)	(\$160,000)	(\$160,000)	(\$160,000)
Subtotal Direct Transfers to Reserves	(\$320,000)	(\$320,000)	(\$320,000)	(\$320,000)	(\$320,000)	(\$320,000)
Net Cashflow (after direct transfers)	\$1,253,343	\$890,806	\$1,005,789	\$807,859	\$948,114	\$1,103,697

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Appendices: A – 1 Cashflow Pro Forma (cont)

Operating Fund	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Beginning Balance	\$1,329,905	\$1,195,151	\$1,283,425	\$1,289,096	\$1,295,507	\$1,304,137
Net Cashflow	\$1,253,343	\$890,806	\$1,005,789	\$807,859	\$948,114	\$1,103,697
Transfers from/(to) Debt Reserve	(\$240,950)	(\$210,016)	(\$210,000)	(\$209,745)	\$583	\$36,545
Transfers to Replacement Reserve	(\$1,147,148)	(\$592,515)	(\$790,118)	(\$591,703)	(\$940,067)	(\$1,077,859)
Ending Balance	\$1,195,151	\$1,283,425	\$1,289,096	\$1,295,507	\$1,304,137	\$1,366,521
Target						
Minimum	\$1,195,151	\$1,283,425	\$1,289,096	\$1,295,507	\$1,304,137	\$1,366,521
Recommended Target	\$2,390,301	\$2,566,849	\$2,578,192	\$2,591,014	\$2,608,274	\$2,733,041
Replacement Reserve	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Beginning Balance	\$4,352,439	\$6,219,886	\$6,157,482	\$6,472,908	\$4,882,425	\$5,451,052
<u>Plus:</u>						
Transfers from Operations	\$1,147,148	\$592,515	\$790,118	\$591,703	\$940,067	\$1,077,859
Payback (Chromium 6)	\$404,500	\$404,500	\$0	\$0	\$0	\$0
Payback (Transfer)	\$160,000	\$160,000	\$160,000	\$160,000	\$160,000	\$160,000
New Debt Proceeds	\$0	\$4,000,000	\$2,500,000	\$2,500,000	\$2,500,000	\$0
Connection Fee Revenue	\$357,266	\$178,633	\$179,000	\$179,000	\$179,000	\$179,000
Interest Income	\$69,733	\$79,292	\$92,830	\$94,728	\$85,165	\$77,501
<u>Less:</u>						
Capital Projects	(\$271,200)	(\$5,477,345)	(\$3,406,522)	(\$5,115,914)	(\$3,295,606)	(\$798,849)
Ending Balance	\$6,219,886	\$6,157,482	\$6,472,908	\$4,882,425	\$5,451,052	\$6,146,562
Target						
Minimum	\$4,021,912	\$4,021,912	\$4,021,912	\$4,021,912	\$4,021,912	\$4,021,912
Recommended Target	\$7,026,634	\$7,237,694	\$7,237,694	\$7,237,694	\$7,237,694	\$7,237,694
Disaster Reserve	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Beginning Balance	\$2,800,158	\$3,364,658	\$3,929,158	\$4,089,158	\$4,249,158	\$4,409,158
Payback (Transfer)	\$404,500	\$404,500	\$0	\$0	\$0	\$0
Transfers to/(from) Reserve	\$160,000	\$160,000	\$160,000	\$160,000	\$160,000	\$160,000
Ending Balance	\$3,364,658	\$3,929,158	\$4,089,158	\$4,249,158	\$4,409,158	\$4,569,158
Target						
Minimum	\$4,646,338	\$4,646,338	\$4,646,338	\$4,646,338	\$4,646,338	\$4,646,338
Recommended Target	\$9,292,675	\$9,292,675	\$9,292,675	\$9,292,675	\$9,292,675	\$9,292,675
Rate Stabilization Reserve	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Beginning Balance	\$0	\$0	\$0	\$0	\$0	\$0
Transfers to/(from) Reserve	\$0	\$0	\$0	\$0	\$0	\$0
Ending Balance	\$0	\$0	\$0	\$0	\$0	\$0
Target						
Minimum	\$266,000	\$281,950	\$298,850	\$316,800	\$335,800	\$355,950
Recommended Target	\$532,000	\$563,900	\$597,700	\$633,600	\$671,600	\$711,900
Debt Service Reserve	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Beginning Balance	\$931,175	\$1,172,125	\$1,382,141	\$1,592,141	\$1,801,886	\$1,801,303
Tranfers	\$240,950	\$210,016	\$210,000	\$209,745	(\$583)	(\$36,545)
Ending Balance	\$1,172,125	\$1,382,141	\$1,592,141	\$1,801,886	\$1,801,303	\$1,764,758
Target						
Minimum/ Target (Debt Payment)	\$1,172,125	\$1,382,141	\$1,592,141	\$1,801,886	\$1,801,303	\$1,764,758

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Appendices: A – 2 Expense Projections

Operating Expenses	Inflate by	Proposed	Projected	Projected	Projected	Projected	Projected
		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Administration							
Advertising	General Costs	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Auditing & Accounting Fees	General Costs	\$18,000	\$18,000	\$18,000	\$18,000	\$18,000	\$18,000
Auto Allowance	General Costs	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
Auto Expense	Capital	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Bad Debt - Water	General Costs	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
Board - Auto Expense/Brandon	General Costs	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Board - Auto Expense/Johnson	General Costs	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Board - Education,Training/Brandon	General Costs	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Board - Education,Training/Hoffman	General Costs	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Board - Education,Training/Johnson	General Costs	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Board - Education,Training/Philips	General Costs	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Board - Education,Training/Roberts	General Costs	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Board - Meals,Travel Expenses/Brandon	General Costs	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
Board - Meals,Travel Expenses/Hoffman	General Costs	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
Board - Meals,Travel Expenses/Johnson	General Costs	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
Board - Meals,Travel Expenses/Philips	General Costs	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
Board - Meals,Travel Expenses/Roberts	General Costs	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Board Director's Fee	General Costs	\$40,000	\$41,000	\$42,000	\$43,000	\$44,000	\$45,000
Board Expense - Insurance	General Costs	\$32,000	\$33,000	\$34,000	\$35,000	\$36,000	\$37,000
Computer & Equip Maintenance	General Costs	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
Credit Card Fee & Bank Charges	General Costs	\$52,000	\$53,000	\$54,000	\$55,000	\$56,000	\$57,000
Dues & Subscriptions	General Costs	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Education & Training	General Costs	\$40,000	\$41,000	\$42,000	\$43,000	\$44,000	\$45,000
Employee Group Insurance	Benefits	\$69,000	\$72,000	\$76,000	\$80,000	\$84,000	\$88,000
Employment Expense	General Costs	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Equipment Rental / Lease	General Costs	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
General Maintenance	General Costs	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Holiday	Salaries	\$23,000	\$24,000	\$25,000	\$26,000	\$27,000	\$28,000
Insurance	General Costs	\$96,000	\$98,000	\$100,000	\$102,000	\$104,000	\$106,000
Legal Services	General Costs	\$64,000	\$65,000	\$66,000	\$67,000	\$68,000	\$69,000
Meeting, Seminar & Supplies	General Costs	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Misc Earn	Salaries	\$29,000	\$30,000	\$32,000	\$34,000	\$36,000	\$38,000
Office Supplies	General Costs	\$25,000	\$26,000	\$27,000	\$28,000	\$29,000	\$30,000
Operating Supplies	General Costs	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
Other Operating Expenses	General Costs	\$11,000	\$11,000	\$11,000	\$11,000	\$11,000	\$11,000
Outside Service	Salaries	\$21,000	\$22,000	\$23,000	\$24,000	\$25,000	\$26,000
Overtime	Salaries	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Payroll Taxes	Benefits	\$13,000	\$14,000	\$15,000	\$16,000	\$17,000	\$18,000
Permits & Fees	General Costs	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
Postage & Mailing	General Costs	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Printing	General Costs	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Repair & Maintenance	Capital	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Retirement	Benefits	\$78,000	\$82,000	\$86,000	\$90,000	\$95,000	\$100,000
Salaries & Wages	Salaries	\$456,000	\$479,000	\$503,000	\$528,000	\$554,000	\$582,000
Sick Pay	Salaries	\$30,000	\$32,000	\$34,000	\$36,000	\$38,000	\$40,000
Software Support	General Costs	\$54,000	\$55,000	\$56,000	\$57,000	\$58,000	\$59,000
State & County Fees & Services	General Costs	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
Telephone	General Costs	\$25,000	\$26,000	\$27,000	\$28,000	\$29,000	\$30,000
Travel Expense	General Costs	\$21,000	\$21,000	\$21,000	\$21,000	\$21,000	\$21,000
Uniforms	General Costs	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Utilities	Electricity	\$15,000	\$16,000	\$17,000	\$18,000	\$19,000	\$20,000
Vacations	Salaries	\$42,000	\$44,000	\$46,000	\$48,000	\$50,000	\$53,000
Worker's Compensation	Benefits	\$36,000	\$38,000	\$40,000	\$42,000	\$44,000	\$46,000
Subtotal Administration		\$1,412,000	\$1,463,000	\$1,517,000	\$1,572,000	\$1,629,000	\$1,689,000

Phelan Piñon Hills CSD – Water Rate Study

Appendices: A – 2 Expense Projections (cont)

Conservation

Advertising	General Costs	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Education & Training	General Costs	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Employee Group Insurance	Benefits	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000
Holiday	Salaries	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Office Supplies	General Costs	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Overtime	Salaries	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Payroll Taxes	Benefits	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Programs (Wtr Conservation, etc)	General Costs	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
Retirement	Benefits	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Salaries & Wages	Salaries	\$23,000	\$24,000	\$25,000	\$26,000	\$27,000	\$28,000
Sick Pay	Salaries	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Uniforms	General Costs	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Vacations	Salaries	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Subtotal Conservation		\$59,000	\$60,000	\$61,000	\$62,000	\$63,000	\$64,000

Customer Accounts/Meters

Employee Group Insurance	Benefits	\$70,000	\$74,000	\$78,000	\$82,000	\$86,000	\$90,000
Holiday	Salaries	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
Operating Supplies	General Costs	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000
Outside Service	General Costs	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Overtime	Salaries	\$15,000	\$16,000	\$17,000	\$18,000	\$19,000	\$20,000
Payroll Taxes	Benefits	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000
Permits & Fees	General Costs	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Postage & Mailing	General Costs	\$46,000	\$47,000	\$48,000	\$49,000	\$50,000	\$51,000
Printing	General Costs	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Repair & Maintenance	Capital	\$92,000	\$95,000	\$98,000	\$101,000	\$104,000	\$107,000
Retirement	Benefits	\$30,000	\$32,000	\$34,000	\$36,000	\$38,000	\$40,000
Salaries & Wages	Salaries	\$259,000	\$272,000	\$286,000	\$300,000	\$315,000	\$331,000
Sick Pay	Salaries	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
Software Support	General Costs	\$32,000	\$33,000	\$34,000	\$35,000	\$36,000	\$37,000
Vacations	Salaries	\$10,000	\$11,000	\$12,000	\$13,000	\$14,000	\$15,000
Subtotal Customer Accounts/Meters		\$597,000	\$623,000	\$650,000	\$677,000	\$705,000	\$734,000

Distribution/Transmission

Easement Lease	General Costs	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Employee Group Insurance	Benefits	\$24,000	\$25,000	\$26,000	\$27,000	\$28,000	\$29,000
Holiday	Salaries	\$16,000	\$17,000	\$18,000	\$19,000	\$20,000	\$21,000
Misc Earn	Salaries	\$23,000	\$24,000	\$25,000	\$26,000	\$27,000	\$28,000
Operating Supplies	General Costs	\$39,000	\$40,000	\$41,000	\$42,000	\$43,000	\$44,000
Overtime	Salaries	\$52,000	\$55,000	\$58,000	\$61,000	\$64,000	\$67,000
Payroll Taxes	Benefits	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Repair & Maintenance	Capital	\$242,000	\$387,000	\$399,000	\$412,000	\$425,000	\$439,000
Retirement	Benefits	\$13,000	\$14,000	\$15,000	\$16,000	\$17,000	\$18,000
Salaries & Wages	Salaries	\$62,000	\$65,000	\$68,000	\$71,000	\$75,000	\$79,000
Sick Pay	Salaries	\$13,000	\$14,000	\$15,000	\$16,000	\$17,000	\$18,000
Small Tools	General Costs	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Telephone	General Costs	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Vacations	Salaries	\$19,000	\$20,000	\$21,000	\$22,000	\$23,000	\$24,000
Subtotal Distribution/Transmission		\$516,000	\$674,000	\$699,000	\$725,000	\$752,000	\$780,000

Phelan Piñon Hills CSD – Water Rate Study

Appendices: A – 2 Expense Projections (cont)

Engineering

Computer & Equip Maintenance	General Costs	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Education & Training	General Costs	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Employee Group Insurance	Benefits	\$29,000	\$30,000	\$32,000	\$34,000	\$36,000	\$38,000
Holiday	Salaries	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
Misc Earn	Salaries	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Office Supplies	General Costs	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Outside Service	Salaries	\$20,000	\$21,000	\$22,000	\$23,000	\$24,000	\$25,000
Payroll Taxes	Benefits	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
Retirement	Benefits	\$27,000	\$28,000	\$29,000	\$30,000	\$32,000	\$34,000
Salaries & Wages	Salaries	\$153,000	\$161,000	\$169,000	\$177,000	\$186,000	\$195,000
Sick Pay	Salaries	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
Software Support	General Costs	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000
Travel Expense	General Costs	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
Vacations	Salaries	\$10,000	\$11,000	\$12,000	\$13,000	\$14,000	\$15,000
Subtotal Engineering		\$284,000	\$296,000	\$309,000	\$322,000	\$337,000	\$352,000

Operations

Chromium 6 Mitigation	Non-Inflated	\$809,000	\$809,000	\$599,000	\$388,000	\$178,000	\$178,000
Employee Group Insurance	Benefits	\$57,000	\$60,000	\$63,000	\$66,000	\$69,000	\$72,000
Holiday	Salaries	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
Misc Earn	Salaries	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000
Office Supplies	General Costs	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Operating Supplies	General Costs	\$34,000	\$35,000	\$36,000	\$37,000	\$38,000	\$39,000
Outside Service	Salaries	\$15,000	\$16,000	\$17,000	\$18,000	\$19,000	\$20,000
Overtime	Salaries	\$29,000	\$30,000	\$32,000	\$34,000	\$36,000	\$38,000
Payroll Taxes	Benefits	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
Permits & Fees	General Costs	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Repair & Maintenance	Capital	\$101,000	\$104,000	\$107,000	\$110,000	\$113,000	\$117,000
Retirement	Benefits	\$38,000	\$40,000	\$42,000	\$44,000	\$46,000	\$48,000
Salaries & Wages	Salaries	\$342,000	\$359,000	\$377,000	\$396,000	\$416,000	\$437,000
Sick Pay	Salaries	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Small Tools	General Costs	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
Uniforms	General Costs	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Subtotal Operations		\$1,475,000	\$1,503,000	\$1,323,000	\$1,143,000	\$965,000	\$999,000

Production (Source of Supply)

Employee Group Insurance	Benefits	\$17,000	\$18,000	\$19,000	\$20,000	\$21,000	\$22,000
Holiday	Salaries	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Misc Earn	Salaries	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
MWA/Antelope WM Admin. & Bio Fee	General Costs	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
MWA/Antelope WM Make Up Water	General Costs	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Operating Supplies	General Costs	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
Overtime	Salaries	\$35,000	\$37,000	\$39,000	\$41,000	\$43,000	\$45,000
Payroll Taxes	Benefits	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Permits & Fees	General Costs	\$30,000	\$31,000	\$32,000	\$33,000	\$34,000	\$35,000
Repair & Maintenance	Capital	\$150,000	\$155,000	\$160,000	\$165,000	\$170,000	\$175,000
Retirement	Benefits	\$11,000	\$12,000	\$13,000	\$14,000	\$15,000	\$16,000
Salaries & Wages	Salaries	\$55,000	\$58,000	\$61,000	\$64,000	\$67,000	\$70,000
Sick Pay	Salaries	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Utilities	Electricity	\$668,000	\$701,000	\$736,000	\$773,000	\$812,000	\$853,000
Utilities - Solar Credits	Electricity	-\$413,000	-\$434,000	-\$456,000	-\$479,000	-\$503,000	-\$528,000
Vacations	Salaries	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Subtotal Production (Source of Supply)		\$605,000	\$630,000	\$656,000	\$683,000	\$711,000	\$740,000

Phelan Piñon Hills CSD – Water Rate Study

Appendices: A – 2 Expense Projections (cont)

Vehicles and Equipment

Equipment Rental / Lease	General Costs	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
Fuel Costs	General Costs	\$58,000	\$59,000	\$60,000	\$61,000	\$62,000	\$63,000
Insurance - Vehicle	General Costs	\$19,000	\$19,000	\$19,000	\$19,000	\$19,000	\$19,000
Vehicle Maintenance	Capital	\$50,000	\$52,000	\$54,000	\$56,000	\$58,000	\$60,000
Subtotal Vehicles and Equipment		\$135,000	\$138,000	\$141,000	\$144,000	\$147,000	\$150,000

Water Quality

Employee Group Insurance	Benefits	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
Holiday	Salaries	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Laboratory Analysis	General Costs	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000
Misc Earn	Salaries	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
Operating Supplies	General Costs	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Payroll Taxes	Benefits	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Retirement	Benefits	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Salaries & Wages	Salaries	\$36,000	\$38,000	\$40,000	\$42,000	\$44,000	\$46,000
Sick Pay	Salaries	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Vacations	Salaries	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Subtotal Water Quality		\$76,000	\$78,000	\$80,000	\$82,000	\$84,000	\$86,000

Inter-Transfers

Transfer In/Out Government	General Costs	-\$312,000	-\$260,000	-\$208,000	-\$156,000	-\$104,000	-\$52,000
Subtotal Inter-Transfers		-\$312,000	-\$260,000	-\$208,000	-\$156,000	-\$104,000	-\$52,000

Total Operating Expenses		\$4,847,000	\$5,205,000	\$5,228,000	\$5,254,000	\$5,289,000	\$5,542,000
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Appendices: A – 3 System Assets

Asset Category	OC	OCLD	RC	RCLD	RCLD
					Selected Valuation
Buildings	\$5,264,098	\$4,715,650	\$5,476,768	\$4,906,162	\$4,906,162
Equipment & Other	\$5,449,992	\$3,232,135	\$5,843,140	\$3,372,479	\$3,372,479
Hydrants	\$191,670	\$0	\$242,673	\$0	\$0
Land	\$1,283,434	\$1,283,434	\$1,719,295	\$1,719,295	\$1,719,295
Meters	\$1,921,146	\$144,086	\$2,295,947	\$172,196	\$172,196
Pumping	\$4,114,808	\$1,079,972	\$7,421,705	\$1,947,038	\$1,947,038
Storage	\$6,371,808	\$2,787,971	\$9,036,754	\$3,721,714	\$3,721,714
Transmission and Distribution	\$18,144,344	\$5,227,461	\$31,930,350	\$8,331,187	\$8,331,187
Water Rights	\$16,371,783	\$16,371,783	\$18,789,582	\$18,789,582	\$18,789,582
Wells	\$5,071,217	\$3,110,667	\$6,897,959	\$4,121,827	\$4,121,827
Total Assets	\$64,184,300	\$37,953,160	\$89,654,173	\$47,081,480	\$47,081,480

Exhibit C

Consumption Rate Component

Variable Rates (\$/hcf)

Customer Class	Existing	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Residential						
Tier 1	\$2.53	\$2.64	\$2.80	\$2.97	\$3.15	\$3.34
Tier 2	\$4.00	\$4.01	\$4.26	\$4.52	\$4.80	\$5.09
Multi-Family Residential						
Tier 1	\$2.53	\$2.64	\$2.80	\$2.97	\$3.15	\$3.34
Tier 2	\$4.00	\$4.01	\$4.26	\$4.52	\$4.80	\$5.09
Commercial	\$3.02	\$3.06	\$3.25	\$3.45	\$3.66	\$3.88
Commercial 2						
Tier 1	\$2.53	\$2.64	\$2.80	\$2.97	\$3.15	\$3.34
Tier 2	\$4.00	\$4.01	\$4.26	\$4.52	\$4.80	\$5.09
Institutional	\$3.21	\$3.53	\$3.75	\$3.98	\$4.22	\$4.48